Offshore Wind Call for Information NS25-1R

What We Heard Report
Appendix A

Prepared by:
Canada-Nova Scotia Offshore Energy Regulator

Date:
April 2026

CNSOER
CANADA - NOVA SCOTIA OFFSHORE ENERGY REGULATOR

Appendix A –
Offshore Wind Call for Information NS25-1R
Written Feeback Submissions

Appendix A is a summary document of written feedback received through the offshore wind Call for Information NS25-1R digital feedback form or via email submission. Submissions have been organized by respondent type.

Unless marked as confidential or the respondent has requested that their feedback or company name not be shared publicly, the summary document includes feedback verbatim with no edits except for the removal of any profanities and inappropriate language.

If the respondent submitted comments through the offshore wind digital feedback form, they have been included directly in a summary table. If the respondent included an attachment with their submission, it is noted in the table with a link to their attachment, which is included in this document following the table summaries.

If the respondent submitted comments directly via email, or only as an attachment, it has been noted in the table, and their submission is included as an attachment in this document following the table summaries.

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Indigenous Groups and Rights Holders

Name	Twila Gaudet
Organization	Kwilmu'kw Maw-klusuaqn
Respondent Type	Indigenous Group or Rights Holders
Attach your comments.	Click to access file.

Name	Zachary Sabean
Organization	Confederacy of Mainland Mi'kmaq
Respondent Type	Indigenous Group or Rights Holders
The CNSOER welcomes your suggestions and feedback on the government identified Wind Energy Areas (Sydney Bight, Middle Bank, and French Bank) and the factors the CNSOER will use to design parcels within those Wind Energy Areas.	Parcel identification factors should include important marine and/or identified critical habitat, and protected marine places i.e., (Marine Protected Areas, Indigenous Protected and Conserved Areas, and Other Effective Area-Based Conservation Measures). Mi'kmaq values, priorities, and governance systems are community-specific and should not be generalized or assumed to be addressed through these conventional categories alone. Consideration of protected or conserved areas does not necessarily mean that Indigenous Protected and Conserved Areas or other Indigenous-led stewardship initiatives have been meaningfully considered. More broadly, proponents should clearly demonstrate how Mi'kmaq-specific perspectives, rights, and governance are identified and addressed, rather than inferred through general environmental or planning frameworks. In addition to the factors listed, parcel identification and sequencing should explicitly consider cumulative effects and adaptive management over time. This includes assessing the combined impacts of multiple offshore wind projects, associated transmission infrastructure, and other existing or reasonably foreseeable marine activities on ecosystems, ocean users, and Mi'kmaq rights. The Call for Information should also clarify how new scientific information, monitoring results, and Mi'kmaq knowledge will be incorporated into future parcel design, boundary adjustments, and subsequent Calls for Bids. Meaningful implementation, including ongoing engagement with Mi'kmaq rights holders and affected communities is critical to ensure that there are meaningful opportunities for continued input as this process advances including but not limited to new or changed wind energy areas
The CNSOER welcomes your suggestions and feedback on bid submission criteria to be used as part of the Call for Bids process, including specific criteria, criteria weighting, scoring metrics, and evaluation methods.	The Call for Bids criteria should establish clear processes, weighting, and verification mechanisms related to equity, accountability, and long-term delivery. Criteria under Engagement and Community Benefits, Supply Chain and Workforce Development, and Environmental Sustainability and Coexistence should move beyond plan-based commitments toward demonstrated capability and enforceable outcomes. For example, where compensation or community benefit mechanisms are proposed (e.g., Community Benefits Agreements), bid submissions should clearly specify how these mechanisms will operate in practice, including the financial structure, governance arrangements, form of benefits, responsible entities for collection and administration, and transparent processes for distribution and oversight. Ensure that bidders have prior experience delivering meaningful community partnerships and benefits in comparable jurisdictions. Bidders should propose

	measurable targets and timelines for community benefits and workforce development along with a comprehensive communication plan. Ensuring that there is a decommissioning section in the Project Financing Plan to guarantee that there is substantial funding at end of life is crucial to ensure long-term accountability, and to maintain trust between industry and communities. Establish transparent scoring metrics to evaluate how proponents will deliver meaningful engagement, coexistence with fisheries, and uphold and protect Mi'kmaq rights and livelihoods, with emphasis on measurable outcomes, accountability mechanisms, and long-term implementation. Establishing criteria weighting, scoring metrics, and evaluation methods, etc., requires a bilateral relationship between all stakeholders and right holders. Socioeconomic factors affecting communities should be considered, particularly those related to local demographics. Demographic considerations are central to both distributional and recognition justice, as they identify the composition of local communities and the diversity of voices, needs, and priorities that should be accounted for (Energy Equity Report, 2022). Bid submissions should therefore demonstrate an understanding of the local social context, including who may be affected by offshore wind development, how impacts and benefits may be unevenly distributed, and how engagement, benefit-sharing, and workforce strategies are tailored to community-specific values and capacities rather than generic or one-size-fits-all approaches. This should include consideration of potential social impacts associated with project development, such as temporary workforce accommodation and worker camps, population influxes, changes in local labour markets, and implications for community dynamics, including gender and equity considerations. Proponents should outline how such social impacts will be assessed, mitigated, and monitored in collaboration with affected communities.
The CNSOER welcomes your suggestions and feedback on coexistence.	Establishing expectations for monitoring, reporting, and periodic review of coexistence measures would help ensure that coexistence commitments remain effective, credible, and responsive as OSW development advances in the province. Establish coexistence protocols and safety measures for fishing access and operations to minimize effects on all fisheries (Commercial Fisheries, Communal Commercial Fisheries, Food, Social, and Ceremonial Fisheries, and Netukulimk Livelihood Fishery-Moderate Livelihood). Coexistence needs to have continuous dialogue and be adaptable while upholding and respecting social, economic, ecological, and cultural interests and values. Coexistence approaches are highly dependent on the methodologies applied. The Call for Bids should therefore require proponents to clearly specify the methodologies used to assess and operationalize coexistence, including how ocean users, stakeholders, and rights holders are identified and engaged; which activities and interactions are considered; the data and knowledge sources relied upon (including Mi'kmaq knowledge, where appropriate); and the nature of collaboration undertaken to date. Clear articulation of methodology will allow the Regulator to assess the credibility, inclusiveness, and robustness of proposed coexistence approaches.
The CNSOER welcomes your suggestions and feedback on behalf of	Fisheries compensation should not be limited to industrial fishing, it needs to include local fisheries and fishing activities by Mi'kmaw communities as well. Mi'kmaq fisheries compensation plans need to be developed in collaboration with impacted Mi'kmaw communities. They will need to consider the uniqueness of all Mi'kmaq fishing activities (Aboriginal Communal Commercial Fisheries, Food,

governments on considerations for fisheries' compensation.	Social, and Ceremonial Fisheries, and Netukulimk Livelihood Fishery-Moderate Livelihood). It is important to note that Mi'kmaq fisheries are growing and there is potential for fishing activities to expand into other marine areas that are not currently being accessed.
The CNSOER welcomes your suggestions and feedback on the fees for bid submissions and successful bidders.	Clarification on how the bid submission and license fees will be allocated and expended would be helpful to support transparency and understanding of the fee structure.
The CNSOER welcomes your suggestions and feedback on considerations and adherence to the principles listed in the Accord Acts.	Adherence to the Accord Act principles should be embedded as enforceable requirements within the Call for Bids, rather than treated as high-level statements of intent. This should clearly define who are the under-represented groups (e.g., Mi'kmaq of Nova Scotia, African Nova Scotian and African Descent communities) and require proponents to demonstrate how these groups will be meaningfully included in employment, procurement, and service delivery through measurable commitments, timelines, and reporting mechanisms.
The CNSOER welcomes your suggestions and feedback on possible considerations for community benefits programs related to offshore wind development.	Where compensation or community benefit mechanisms are proposed (e.g., Community Benefits Agreements), bid submissions should clearly specify how these mechanisms will operate in practice, including the financial structure, governance arrangements, form of benefits, responsible entities for collection and administration, and transparent processes for distribution and oversight [Same feedback as mentioned in Question #2]. To enhance distributive justice for the local communities and Mi'kmaq livelihoods near the project location and impacted area, benefit schemes for communities are often integrated into development projects. These schemes may encompass financial compensation for community members through direct payments to individuals, municipalities, or local organizations; reduced energy bills for residents; investment opportunities for community members to purchase shares in the project; or even non-monetary benefits such as educational presentations at local schools and infrastructure improvements like parks and playgrounds (Stier and Wallimann 2019; Cowell et al. 2012; Kallis et al. 2021; Walker and Baxter 2017). Choosing the right compensation mechanism depends on the community and is achieved through direct community engagement to understand what supports would be most beneficial.
The CNSOER welcomes your suggestions and feedback on possible terms and conditions for the draft Submerged Land Licence.	The draft terms and conditions would benefit from clearer conditions around decommissioning after a licence is terminated, particularly where a project does not proceed or the interested owner becomes insolvent or bankrupt. While financial assurance is mentioned, it is not clear how stranded infrastructure would be dealt with if the proponent is no longer solvent.
The CNSOER welcomes your suggestions and feedback on considerations for a Participant Funding Program.	Conduct a review of other participation funding programs and assess how they administer their programs and what eligible expenditures are included. Overall, eligible expenditures should include salaries and benefits (for those organizations, groups, or individuals not already receiving funding to cover this work), professional fees (for contracted services), communication and outreach, translation costs, travel expenditures, honoraria, and administrative expenditures.

The CNSOER welcomes any additional feedback and comments.	No additional feedback or comments at this time.

Fishing Sector

Name	Robert (Bob) Anderson
Organization	Area 24 Crab Fisherman Association
Respondent Type	Fishing Sector
Attach your comments.	Click to access file.

Name	Vanessa Byrne
Organization	Atlantic Groundfish Council (AGC), Atlantic Fixed-Gear Council (AFC), and Groundfish ITQ Association (GITQA)
Respondent Type	Fishing Sector
The CNSOER welcomes your suggestions and feedback on the government identified Wind Energy Areas (Sydney Bight, Middle Bank, and French Bank) and the factors the CNSOER will use to design parcels within those Wind Energy Areas.	Opening Note: The AGC represents offshore (>100') groundfish licence holders in Atlantic Canada, the AFC represents midshore (65-100') fixed-gear groundfish licence holders in Atlantic Canada, and the GITQA represents inshore (<65') ITQ groundfish licences in the Maritimes Region. In this regard, it is important to recognize that the submission herein is a collective response on behalf three fisheries associations representing numerous groundfish licence holders operating across the Atlantic who collectively support millions in economic revenue annually for Atlantic Canadians. Comment: Please consider comments provided here to be in conjunction with previous submissions on behalf of the AGC, AFC, and GITQA. Refer to the April 30th, 2025, joint submission on behalf of the AGC, AFC, and GITQA on proposed Wind Energy Areas (WEAs). Additionally, our organizations are members of the Nova Scotia Fisheries Alliance for Energy Engagement (NSFAEE) and we have provided direct input into the NSFAEE's written response to the Call for Information. Therefore, information provided here should also be considered in conjunction with contents provided in the NSFAEE response. We thank the CNSOER (Regulator) for providing an initial list of potential factors to be considered by the Regulator for parcel identification. We highlight that should parcels consider future opportunities for project expansion and/or multiple developers operating simultaneously within a WEA, possible interactions with the fishing industry from those potential expansions should also be considered a key factor by the Regulator in determining suitable parcel locations wherever possible (i.e., if information for future expansions is available to the Regulator by wind energy developers as early as the first Call for Bids, an analysis should be undertaken to determine potential fishery interactions and subsequent areas within the WEAs that might merit avoiding). AGC, AFC, and GITQA members harvest multiple groundfish species across the Atlantic, including most of the coastal waters off Nova Scotia throughout the entire year. Groundfish species fished include, but are not limited to, Atlantic cod, Atlantic halibut, redfish, haddock, pollock, and silver hake. Within these species' groups, there are also multiple "stocks" that have differing management regimes in place that dictate when, where, and how harvesters can fish. It is important to recognize that some of these stocks are currently actively harvested while others may have been active in the past but are now under moratorium where fishing is limited. For those under moratorium, focus remains on recovering the stock so that it may

	once again be a significant economic contributor to the fishing industry and to Atlantic Canadians. Given this dynamic nature of the groundfish fishing industry, we reiterate that it is extremely challenging to confidently identify areas of low impact to groundfish fleets. Further, we restate that the narrow temporal scope (2012-2021) of commercial fisheries landings data underpinning most of the analyses for potential direct overlap with fishing activity in the WEAs continues to be a concerning gap for our members who harvest multiple groundfish resources across the Scotian Shelf. In just this past two years alone, we have seen two major commercial groundfish stocks lifted from multi-decadal moratoriums back into commercial fisheries (Unit 1 Redfish and 2J3KL Northern cod). This is direct evidence that the fishery footprint of 2012-2021 does not sufficiently capture all key historical and future fishing grounds. The other significant challenge in this regard, particularly for groundfish resources, is that they are mobile species and shift their location in time and space as a result of things like changing climates and shifts in the oceanographic and biological elements of the environment (e.g., temperature, salinity, currents, predator and prey abundance, etc.). With the above limitations in mind, we recognize the challenge of identifying "lowest" conflict areas with respect to the fishing industry and offshore wind development. We offer the following additional specifications on our members' current fishing activity relative to the WEAs under consideration for parcel identification and note that continued direct consultations with our industry is needed to ensure the minutia of what, when, where, and how our members fish is sufficiently captured in this process. Sydney Bight is well known as an historically important redfish fishing area. Until 2024, the redfish fishery in that area had been under moratorium since 1995 and therefore, the 2012-2021 data set does not provide sufficient information on the importance of this area for redfish harvesters. While current fishing activity patterns do not appear to greatly overlap with the Sydney Bight WEA, given the fishery's recent re-opening, it remains too early to confirm the footprint of the re-opened fishery. It is strongly suggested that to support suitable parcel identification in this area and potential future offshore wind development, the Regulator continue to monitor and receive up-to-date fishery footprint data in this area, consulting directly with the fishing industry in addition to the Department of Fisheries and Oceans (DFO). The French Bank WEA is proximal to silver hake fishing grounds. Specifically, the southwestern edge of the French Bank WEA is directly adjacent to a silver hake fishing hot spot (Figure 1 Attachment). It is expected that parcels designated on the west side of French Bank are expected to pose a significant risk to the silver hake fishery which has been an active fishery annually for generations. Of note, silver hake harvesters are only permitted to fish in specific areas under the current fishery management regime and therefore will be limited in shifting their activity in response to potential wind energy development. Additionally, the landings data presented here does not provide the full picture with respect to areas of importance to the silver hake fleet. The fishery is conducted using bottom trawl technology whereby a net is dropped and pulled along by the vessel. For the silver hake fleet, specifically on the western edge of French Bank, a captain will often transit / drift easterly up to 15-20 miles while awaiting the right time and location to drop the net in response to weather, currents, abundance of fish, etc. One of the concerns of wind turbine establishment near these grounds is that this additional 15-20 mile radius needed for vessel movement during fishing activity will be restricted. In this regard, it is recommended that, in addition to direct overlap

	with fishery landings data, the Regulator consider these details to better inform parcel identification. There are also concerns regarding the impact of construction and operation of wind turbines in this area on spawning activity of silver hake. Current scientific information indicates that silver hake on the Scotian Shelf spawn July – September where large numbers occur on the Scotian shelf in shallow waters. It is understood that some of the larger adult silver hake will overwinter on the shelf slope but then move onto the banks during the summer to spawn. Scientific evidence concludes that banks on the Scotian shelf are particularly important spawning areas for silver hake (Stone et al., 2013). Given that banks are also a key interest for offshore wind energy development, the potential for interactions between offshore wind development / operations with fish spawning processes that underpin healthy commercial fish stocks is high. Again, these are additional factors in respect of potential impacts to the fishing sector that we recommend be taken into consideration by the Regulator during parcel identification.
The CNSOER welcomes your suggestions and feedback on bid submission criteria to be used as part of the Call for Bids process, including specific criteria, criteria weighting, scoring metrics, and evaluation methods.	Bid submission categories presented here appear reasonably suitable; however, it is suggested that these categories and/or subcategories be expanded to more specifically address consideration of the fish and seafood sector. For example, it is recommended that wind energy proponents be evaluated on their history and experience, including perceived successes and challenges, with stakeholders in past projects. If proponents have had experience interacting with the fish and seafood industry, this should be specifically highlighted. Fish and seafood harvesters have been making their living from the waters off the coast of Nova Scotia for generations and have continued to generate millions in economic revenue for Atlantic Canadians annually. As long-standing, primary users of this environment, it is important that criteria, criteria weighting, and scoring as part of the call for bids process sufficiently take this into account. AGC, AFC, and GITQA support a successful co-existence between the offshore wind and seafood industries and are hopeful that it can be achieved in a way that facilitates additive benefit to Nova Scotians as opposed to risking the success of one industry at the detriment of another. Strongly weighted fisheries-related criteria can support this outcome. Given the dynamic nature of groundfish fisheries occurring on the Scotian Shelf and identified gaps in available knowledge with respect to key groundfish fishing areas, it is recommended that any coexistence plan should not only include references to existing ocean users and uses within a specific WEA and parcel(s) but also those within close proximity to the WEA (e.g., silver hake fishing directly adjacent to the French Bank boundary).
The CNSOER welcomes your suggestions and feedback on coexistence.	AGC, AFC, and GITQA continue to support the approach to achieving coexistence as first, avoiding negative interactions between the fishing and offshore wind industries, second, mitigating potential impacts that cannot be avoided, and last, compensation where the former two items are unachievable. It is recognized that definitions of coexistence vary across individuals, organizations, and jurisdictions. It is recommended that as part of an offshore wind developer's proposal to a call for bids, they clearly provide their definition and understanding of co-existence between the offshore wind energy industry and the fishing industry in Nova Scotia. This will help facilitate achieving coexistence. It is also recommended that offshore wind energy proponents provide a detailed history of coexistence with the fishing industry (or other marine users where the fishing industry has not been involved) from past projects.

The CNSOER welcomes your suggestions and feedback on behalf of governments on considerations for fisheries' compensation.	The continuation of existing fishing activity is the highest priority for AGC, AFC, and GITQA members with respect to future offshore wind development in Nova Scotia. In this regard, we appreciate the CNSOER's recognition that continued activities of ocean users, including the commercial fishing and seafood sectors is a guiding principle for advancing offshore wind in Canada. Our members' primary interest is to continue fishing uninterrupted and in a manner consistent with how they have been doing so for generations. In this regard, it is our view that priority be given first to avoidance of impacts, then to mitigation of impacts, and finally, compensation. Although our view is that compensation should be a last resort, we highlight that the development of a robust compensation framework that can facilitate appropriate compensation payments if needed must not be delayed. It is recommended that any compensation framework to support wind energy development be completed and publicly available before seabed tenure is granted. Any such framework and associated compensation-related processes should also be transparent and publicly available. To be a successful tool, a compensation framework must be adaptive to account for impacts/scenarios that may arise throughout the duration of an offshore wind development lifecycle that are currently unknown. It is well understood that there are likely potential impacts that cannot be accounted for at this early stage due to knowledge limitations on how offshore wind development in NS will impact the marine environment, other marine users, and onshore ancillary operations of businesses relying on the marine environment. Finally, we note that in other jurisdictions (e.g., Scotland), there is currently no compensation mechanism in place for the mobile gear fishing sector who were completely displaced by wind farms due to the nature of their fishing technology and operations. This is of great concern to our members, whom the majority are fishing with mobile, bottom trawl gear, and are at risk of complete exclusion from fishing within or near future turbines. Therefore, it is strongly recommended that a compensation framework account for this, as well as both indirect and direct impacts to the fishing industry.
The CNSOER welcomes your suggestions and feedback on the fees for bid submissions and successful bidders.	It is recommended that in full transparency, specific information on any such fees will be provided to the public including specific amounts and intended utilization. It is recommended that the consideration of such Regulator fees include the potential to support the need for the fish and seafood industry to remain engaged on offshore wind matters, as it is expected that this will be a long-term endeavor.
The CNSOER welcomes your suggestions and feedback on considerations and adherence to the principles listed in the Accord Acts.	With respect to giving "importance" to the consideration of effects on fishing activities, as outlined in the Accord Acts, we highlight that this supports the need for: • Acknowledgment that the Accord Acts specification on effects to the fishing industry is not limited to the WEA or offshore wind project footprint nor does it specifically define fishing activities. • Continued, direct consultation with the fishing industry to ensure that the Regulator, governments, and wind energy proponents have the most up-to-date understanding of fishing activity (i.e., how, when, where, what) that is occurring in and adjacent to the WEAs and any potential offshore wind development. • Establishment of baseline monitoring programs early to support proponents' ability to adhere to the principles in the Accord Acts. • Expanding bid criteria to more specifically address consideration of the fish and seafood sector. For example, as noted above, evaluating

	potential wind developers on their history and experience, including perceived successes and challenges, with the fish and seafood industry in past projects. • Ensuring that bid criteria evaluation includes heavily weighted fisheries-related metrics to support the Accord Acts requirement of giving due consideration of effects on fishing activities.
The CNSOER welcomes your suggestions and feedback on possible terms and conditions for the draft Submerged Land Licence.	We thank the Regulator for providing a starting list of potential terms and conditions for inclusion in the Submerged Land Licence (SLL). The NSFAEE submission to the call for information includes detailed examples of additional terms and conditions for which the fishing industry recommends be included, and these are supported by the AGC, AFC, and GITQA. Additionally, we flag that the current starting list of terms and conditions provided by the Regulator highlights that the Site Assessment Period is proposed to last a maximum of six years, and that financial assurance from the developer is to be submitted at the end of the Site Assessment Period. It is our recommendation that potential offshore wind proponents be required to demonstrate financial assurance before being issued a SLL.
The CNSOER welcomes your suggestions and feedback on considerations for a Participant Funding Program.	The AGC, AFC, and GITQA support the need for funds to be provided to the harvesting sector to establish capacity building that will facilitate their continued engagement in the process of offshore wind development and its entire life cycle.
The CNSOER welcomes any additional feedback and comments.	The AFC, and GITQA members are multi-generational stewards of the NS marine environment and the fisheries it supports. To ensure coexistence can be achieved and that the offshore wind energy industry can thrive alongside the fishing industry, multiplying the economic value rather than diminishing one industry by another, completion of an in-depth socioeconomic analysis of the fish and seafood sector prior to offshore wind development is crucial. Thank you for the opportunity to provide feedback into this important process. We will continue to remain engaged as the potential development off offshore wind in NS continues to rollout.
Attach your comments.	Click to access file.

Name	Melinda Cole (submission 1)
Organization	Guysborough County Inshore Fishermen's Association
Respondent Type	Fishing Sector
Attach your comments.	Click to access files.

Name	Melinda Cole (submission 2)
Organization	Guysborough County Inshore Fishermen's Association
Respondent Type	Fishing Sector
Attach your comments.	Click to access files.

Name	Daryl David

Organization	Area 24 crab fisherman's association
Respondent Type	Fishing Sector
The CNSOER welcomes your suggestions and feedback on the government identified Wind Energy Areas (Sydney Bight, Middle Bank, and French Bank) and the factors the CNSOER will use to design parcels within those Wind Energy Areas.	I am not against wind energy. That being said all 3 of these locations are in my option trading a lucrative fishing industry with decades of proven resources for a potential industry that could be set up on land in Nova Scotia with no impact to other industries.
The CNSOER welcomes your suggestions and feedback on bid submission criteria to be used as part of the Call for Bids process, including specific criteria, criteria weighting, scoring metrics, and evaluation methods.	Your criteria is fine but defining the long term impacts on ocean and fishing industry stock wise is impossible to predict with certainty and not worth the risk. Again this can all be done land based and have minimal impact to other resources.
The CNSOER welcomes your suggestions and feedback on coexistence.	We harvest groundfish and snowcrab on both middle and French bank. These are our most lucrative areas for the past 30 years. There is no way that we can navigate in foul weather around windmills not to mention the impact during construction and into the futur that can never be know without a crystal ball. Our entire life's work is at risk. The lack of sucessful projects world wide are not suffie t enough to risk a proven resource. It will not be safe one industry will need to move. As for crab fishers in area 24 these banks are our home.
The CNSOER welcomes your suggestions and feedback on behalf of governments on considerations for fisheries' compensation.	There is no compensation that can pay for taking a way of life from our families and the next generation who will need to find other employment because the fishing enterprises that thier family members spent a lifetime building and protecting no longer exists. How do you compensate this and it will be to easy to blame other factors for the demise of fish stocks to prove fault of wind power. How can there be no impact to ocean floor and all the species who use it. It is impossible.
The CNSOER welcomes your suggestions and feedback on the fees for bid submissions and successful bidders.	1 million to potentially ruin a multibillion dollar resource is no where near a fair price.

The CNSOER welcomes your suggestions and feedback on considerations and adherence to the principles listed in the Accord Acts.	Look at alternative areas on crown land to establish wind farms. It is windy on land everywhere in Nova Scotia. With a lot less risk to water based farms.
The CNSOER welcomes any additional feedback and comments.	This is to risky and should not be done offshore. Find a suitable location on land.

Name	Jordan David
Organization	Richmond County Inshore Fishermans Association
Respondent Type	Fishing Sector
The CNSOER welcomes your suggestions and feedback on the government identified Wind Energy Areas (Sydney Bight, Middle Bank, and French Bank) and the factors the CNSOER will use to design parcels within those Wind Energy Areas.	As an area 24 crab fisherman fishing Middle Bank and French Bank it is quite alarming the size of the outlined grids encompassing a vast majority and close proximity the majority of my fishing grounds. By doing this you will be squeezing fisherman to a smaller area, having a severe impacts on catch rates and the sustainability of the fishery going future. Middle bank is also a large corridor for marine shipping traffic from Europe to the United States and by having wind mills in this area it will force the marine traffic to alter course thru remaining fishing grounds creating a dangerous high traffic area between large freighters and fishing boats, also creating gear interactions and a creating a large problem for ghost gear in the future. Middle Bank is also a habitat and breeding ground for diverse species of fish and crustacean's found in the North Atlantic, an area that was highlighted as an area of interest as a future marine protected area should not be an area of interest for offshore wind, if this area was considered as an area of interest for future marine protected area it should not even be considered as an area of exploration or an area to have a call for bids for offshore wind, it should be protected for marine species to grow as originally intended.
The CNSOER welcomes your suggestions and feedback on bid submission criteria to be used as part of the Call for Bids process, including specific criteria, criteria weighting, scoring metrics, and evaluation methods.	I don't think there's been enough consulting and research done on the subjects to have a call for bids as early as it is, I believe the call for bids should be pushed until more research is conducted on offshore wind.
The CNSOER welcomes your suggestions and feedback on coexistence.	I think co-existing will be very limited, although the space may be able to be co-existed, the areas highlighted are fishing banks, meaning there are lots of fishing activity on and directly adjacent to these banks, the impacts of putting structures on the highlighted fishing banks will be severe.

The CNSOER welcomes your suggestions and feedback on behalf of governments on considerations for fisheries' compensation.	Compensation should be absolutely be a top priority for licences holders and fishers that have direct impact of offshore wind. Added fuel cost steaming to fishing grounds around highlighted areas including loss of fishing grounds will be a huge beneficial hit to most fishers that rely on these fishing grounds to provide for there businesses and families.
The CNSOER welcomes your suggestions and feedback on possible considerations for community benefits programs related to offshore wind development.	I think there will be little community benefit from these projects, short term there will be an increase in employment as there will need to be many hands involved in construction, but after these offshore wind projects are operational they will require no more then 20-30 full time staff to operate and man these projects. One harbour alone can hire more then that alone in the fishing industry, to replace one industry with another makes no sense to residents of rural Nova Scotia.
The CNSOER welcomes any additional feedback and comments.	I think these offshore wind projects are a big problem and could cost a large population of Nova Scotia to lose a career and an industry that has been around for decades.

Name	Linda Donovan
Organization	MFU
Respondent Type	Fishing Sector
The CNSOER welcomes your suggestions and feedback on the government identified Wind Energy Areas (Sydney Bight, Middle Bank, and French Bank) and the factors the CNSOER will use to design parcels within those Wind Energy Areas.	I am writing to express my strong opposition to the proposed offshore wind farm developments in our waters, including the proposed installations on the Sydney Bight, French Bank and Middle Bank. While I support balanced, evidence-based climate policy in principle, the specific proposal for large-scale wind farms in this area raises significant environmental, social, and economic concerns that have not been adequately addressed. 1. Canada's Climate Policy Canada has legislated a commitment to reach net-zero greenhouse gas emissions by 2050 through the Canadian Net-Zero Emissions Accountability Act. Under this framework, our country is also targeting a 40–45% reduction below 2005 emission levels by 2030 and a 45–50% reduction by 2035 on the pathway to net-zero. However, it's important to place Canada's emissions in a global context: Canada accounts for roughly 1.4% of global greenhouse gas emissions but Canada's per-capita emissions are among the highest in the world. In contrast, China is responsible for nearly 28% of global emissions — many times larger than Canada's total — and its emissions continue to grow with industrial expansion. These facts highlight that Canada's climate impact is limited on a global scale, and that policies should be proportionate, effective, and minimize harm to local communities and ecosystems. 2. Environmental Risks of Offshore Wind Farms

While renewable energy is part of the conversation on reducing emissions, large offshore wind farms — especially in ecologically sensitive areas like the Sydney Bight, French and Middle Bank— pose serious environmental risks:

A. Seabed and Marine Habitat Disruption
   Construction involves drilling, piling, and trenching that disturbs the seabed, alters sediment patterns, and can destroy benthic habitats that support fish, shellfish, and other marine life.
B. Impacts on Marine Mammals and Noise Pollution
   Low-frequency noise generated by turbine operation and construction activities travels long distances in water and can interfere with whale and dolphin communication, navigation, and feeding. Marine mammals are extremely sensitive to these disturbances.
C. Undersea Cables and Electromagnetic Fields (EMF)
   Subsea power cables generate electromagnetic fields as they transmit electricity. Research indicates EMFs may affect the navigation, migration, and behavior of certain fish and invertebrates, though the extent is not fully understood.
D. Migratory Birds and Bats
   Offshore turbines intersect major migratory pathways. Birds and bats are at risk of collision with blades, especially during poor visibility conditions. This could exacerbate declines in already vulnerable populations.
E. Ice Throw and Safety Hazards
   In colder climates like ours, ice can accumulate on turbine blades. When it sheds, it can be thrown significant distances, posing a hazard to vessels, fishers, and wildlife.

3. Local Ecosystems: Sydney Bight, French Bank and Middle Bank

The Sydney Bight, French Bank and Middle Bank are known to be unique and productive ecosystems — supporting commercial fish stocks, marine mammals, seabirds, and other biodiversity. This area is not a generic industrial zone; it is a special ecological system that plays a vital role in the health of the our oceans. Placing industrial infrastructure here risks long-term damage:

- Compromised fish spawning grounds
- Disrupted food chains
- Collision and displacement effects on sensitive species

These impacts are not easily reversible.

4. Economic and Community Impacts

A. Fishing and Coastal Livelihoods
   Local fishers depend on access to traditional fishing grounds. Wind farm installations, exclusion zones, and the disruption of marine life directly affect livelihoods, catch yields, and the local economy. For many families and small businesses, fishing is a way of life, not just a job.
B. Job Creation vs. Reality
   While proponents claim renewable projects will create jobs, studies often find that many positions are temporary (construction only), and long-term operational jobs are limited. Many specialized roles are filled by non-local workers. This means few meaningful, long-term employment opportunities for community members.
C. Subsidies and Public Costs
   Offshore wind projects are heavily subsidized through tax incentives, grants, and ratepayer costs. These subsidies often benefit large corporations and foreign investors more than local residents while placing significant financial obligations on taxpayers with uncertain returns.

	5. Conclusion Given the comparatively small contribution of Canada's emissions to the global total, the disproportionate environmental and social costs of offshore wind farms in ecologically sensitive areas like the proposed wind farm sites should compel policymakers to pause and reconsider the current proposals. Rather than rushing into large-scale offshore infrastructure with uncertain benefits and known ecological risks, I urge decision-makers to: • Prioritize proven, low-impact solutions that benefit communities directly • Protect key ecosystems and fisheries that support coastal livelihoods • Ensure transparent consultation with local stakeholders, including fishers, Indigenous communities, and scientists I respectfully request that my concerns — and the concerns of many others — be given serious consideration before any further approvals or investments are made. Sincerely, Linda Donovan

Name	Emily Doyle
Organization	N/A
Respondent Type	Fishing Sector
Attach your comments.	Click to access file.

Name	Curtis Fraser
Organization	Inshore Lobster, Crab and Groundfish Harvester
Respondent Type	Fishing Sector
The CNSOER welcomes your suggestions and feedback on the government identified Wind Energy Areas (Sydney Bight, Middle Bank, and French Bank) and the factors the CNSOER will use to design parcels within those Wind Energy Areas.	Sydney Bight is a high fished area where many Harvesters make their sole income. Any disruption in this will effect all inshore fish stocks and have a negative impact on the fishery sector has it has done in Scotland and anywhere it is put on the water close to fish stalks. The purposed site impacts the Lobster, Crab and Halibut fishery. There is not one part of Sydney Bight that that is not commercially fished.
The CNSOER welcomes your suggestions and feedback on coexistence.	There is lots of inhabited places in Nova Scotia where these windmills can go on Land. The highlands is crown land and they can put thousands of them there. On the water they will disrupt the fish stalks where intern will have a negative effect on the small communities the fishery supports.
The CNSOER welcomes your suggestions and feedback on	My boys and I fish full time in this area so it will effect me and my sons family livelihoods for generations. We will be hiring a lawyer if Sydney Bight is selected. Its to rich of a fishing grounds to be disturbed. Its not 1 species its multiple. They

behalf of governments on considerations for fisheries' compensation.	will have to buy the whole enterprise of fishermen out. Hundreds of Millions to buy all the fisherman out in Sydney Bight.

Name	Nathaniel George
Organization	Rogue Wave Fisheries Inc.
Respondent Type	Fishing Sector
Attach your comments.	Click to access file.

Name	Thomas Grover
Organization	Tor Bay Fisheries Ltd.
Respondent Type	Fishing Sector
Attach your comments.	Click to access file.

Name	Willard Grover
Organization	W. T. Grover Fisheries Ltd.
Respondent Type	Fishing Sector
Attach your comments.	Click to access file.

Name	Clifford Hood KC
Organization	Hood Fraser D'Entremont
Respondent Type	Fishing Sector
The CNSOER welcomes your suggestions and feedback on the government identified Wind Energy Areas (Sydney Bight, Middle Bank, and French Bank) and the factors the CNSOER will use to design parcels within those Wind Energy Areas.	As described in correspondence Jan 12 French Bank all areas
The CNSOER welcomes your suggestions and feedback on bid submission criteria to be used	Bids should include fishing sector interaction and clarification of fishing buisness compensation.

as part of the Call for Bids process, including specific criteria, criteria weighting, scoring metrics, and evaluation methods.	
The CNSOER welcomes your suggestions and feedback on coexistence.	If the project or projects come into being the must be planned in a manner which interferes with the fishing activity and buisness including the sharesmen who man the vessels, the plant and office workers and investors in Supreme Sea. (See separate latter of Jan 12. The project should only proceed if the common good of the province significantly outweighs the fishing benefits accruning on an annual basis.
The CNSOER welcomes your suggestions and feedback on behalf of governments on considerations for fisheries' compensation.	Must be full and complete sector by sector with forensic accounting verification.
The CNSOER welcomes your suggestions and feedback on the fees for bid submissions and successful bidders.	NA to fishing sector but should be substantial but not so high as to deter legimitate bidders
The CNSOER welcomes your suggestions and feedback on considerations and adherence to the principles listed in the Accord Acts.	No comment
The CNSOER welcomes your suggestions and feedback on possible considerations for community benefits programs related to offshore wind development.	If a sector is impacted in a manner that causes loss of employment and municipal taxes an like impacts there should be compensation to the people and entities impacted.
The CNSOER welcomes your suggestions and feedback on possible terms	To be developed with fulsom input with affected sectors or entities

and conditions for the draft Submerged Land Licence.	
The CNSOER welcomes your suggestions and feedback on considerations for a Participant Funding Program.	None. Define who is considered a Participant
The CNSOER welcomes any additional feedback and comments.	Refer to our separate submission Jan 12.
Attach your comments.	Click to access file.

Name	Ruth Inniss
Organization	Maritime Fishermen's Union
Respondent Type	Fishing Sector
The CNSOER welcomes your suggestions and feedback on the government identified Wind Energy Areas (Sydney Bight, Middle Bank, and French Bank) and the factors the CNSOER will use to design parcels within those Wind Energy Areas.	The Maritime Fishermen's Union has a significant number of members in the Sydney Bight area, Because of this we are concentrating our comments on this area. Our members in Sydney Bight fish halibut (fixed-gear longline) and snow crab (single traps). This area is also important for mobile gear groundfish area as it is within proximity to the Sydney Bight parcel. We share our oceans with many other users. We understand spatial planning is challenging. That said, our organization is requesting that consideration be strongly applied to the fishing industry. There is no doubt that the fishing industry will be affected and we believe no development should take place that risks the fishery. The fishing industry is the main economic driver in the coastal communities where offshore wind turbines will be located. We are concerned with the knowledge gaps in understanding the fishing footprint of the small vessel fleet and their historically important fishing areas. These concerns are based on discussions with our members regarding the proposed wind energy areas and their fishing activities. Maps have been submitted through the NSFAEE. The Accord act requires due consideration of the effects on fishing activities. We feel that there is a failure to address the affects on the fishing industry responsibility and in a wholesome approach. There are seasons, legal fishing areas, regulations, insurance issues, economic considerations, environmental concerns, spatial planning failures that are all of concern to us. We do not believe it is necessary to place offshore wind turbines in active and important fishing areas.
The CNSOER welcomes your suggestions and feedback on bid submission	Engagement and Collaboration - It is imperative that, as part of the evaluation, potential bidders be required to be engaged with and include concerns from the fishing sector. This requires meaningful engagement and not simply a 'box ticking' approach to collaboration. The criteria for understanding the impacts must be designed in collaboration with the fishing community.

criteria to be used as part of the Call for Bids process, including specific criteria, criteria weighting, scoring metrics, and evaluation methods.	Understanding the fisheries – The criteria must include the proponents understanding of the fisheries that historically, currently and hopefully in the future, take place in the areas they plan to bid. Each wind energy area is located in different fishing zones in NS. What happens if eco systems are impacted or displaced? What happens to the harvesters, the shore workers, all of the spin offs from the fishery when the fishery is affected? For a successful bid to be accepted for evaluation they must understand and be able to demonstrate their understanding of how the building and the lifetime of the turbines, cables and all other infrastructure required to harness the wind power will affect each of the fisheries that will be impacted. Understand the fishing biodiversity – Our members have raised many questions that require answers. For example; what happens to the fishing grounds when the waters around the turbines warm? This is an example of the collaboration required with the industry and the knowledge the potential proponents must demonstrate. Installation and lifespan – Proponents must indicate the plan to maintain environmentally sound activities and practices. This includes the complete lifespan of the project. Building, maintain, dismantling. What happens at the end of a turbines lifespan? Does it stay in the ocean? What if the company is no longer in business? Who then is responsible for the clean-up and the responsible environmental practices that must be in place prior to awarding the bid.
The CNSOER welcomes your suggestions and feedback on coexistence.	Coexistence with regards to spatial planning is critical. The Maritime Fishermen's Union has long demanded that the fishing industry be not only included but an integral player when decisions are made regarding the use of our oceans. The fishing industry is the main economic driver in coastal communities. Our members also take an active role in environmental stewardship roles in order to protect the marine environment. In this case the coexistence is not solely related to the parcel for offshore wind development. The ramifications of offshore wind development will go well beyond the geographical area identified for development. It seems, to the fishing industry, that we were not initially considered when the offshore wind initiative in NS gathered momentum. The fishing industry has had to come together and work hard collectively to ensure that we are being considered in this process. This precedent is more that concerning. It is proof that we were not initially considered in coexisting with offshore wind. We expect to be engaged and considered in every step of the process and a clear commitment that this will take place. We expect to have open and transparent discussions with not only the proponents of offshore wind but every other stakeholder utilizing this marine space, again this demands a commitment. MPAs are already in place and are exclusion zones to fishing activities. Why can't they be utilized for offshore wind?
The CNSOER welcomes your suggestions and feedback on behalf of governments on considerations for	The Maritime Fishermen's Union's members want to fish. Compensation should not be seen as way to pay off one industry to advance another. The fishing industry in NS is historical and complex. Our communities are rooted in the fishery. That said in the event of the offshore wind industry displacing the fishery a compensation plan must be in place. This plan must encompass economic loss AND the devaluation of licenses. The plan must be accepted by the fishing industry prior to leases being granted. The plan must be designed with the fishing

fisheries' compensation.	industry and must take into account many factors including future losses. It cannot be a one-time buy out but must consider the losses during building as well as the lifetime of the project. We are unaware of the impacts and this fact makes this a very complicated endeavour. The industry must be engaged while compensation is discussed, Nothing short of this engagement is acceptable.
The CNSOER welcomes your suggestions and feedback on the fees for bid submissions and successful bidders.	The fees for bids has to be high enough that only serious bids are submitted. The fishery is the main economic driver and any awarding of bids must be done the ensure the company that has the resources to stay the course. For example companies failing and leaving debris in the ocean is not acceptable. There is a precedent of this happening in NS and cannot be repeated.
The CNSOER welcomes your suggestions and feedback on considerations and adherence to the principles listed in the Accord Acts.	The Accord act requires due consideration of the effects on fishing activities. We feel that there is a failure to address the affects on the fishing industry responsibility and in a wholesome approach. There are seasons, legal fishing areas, regulations, insurance issues, economic considerations, environmental concerns, spatial planning failures that are all of concern to us.
The CNSOER welcomes your suggestions and feedback on possible considerations for community benefits programs related to offshore wind development.	The fishery is currently the backbone of the cultural and economic fabric of coastal communities. The tourism industry is also closely linked to the fishery in coastal communities. Is this question meant to mean in replacement of current community benefits if the fishery is displaced?
The CNSOER welcomes your suggestions and feedback on possible terms and conditions for the draft Submerged Land Licence.	Before a submerged land license is granted a compensation package for the fishery has to be designed and approved with the industry. A commitment that the license holder be responsible for the complete life of all equipment including turbines, sub sea cables etc. In other words there must be an environmental contingency plan if the license holder fails.
The CNSOER welcomes your suggestions and feedback on considerations for a Participant Funding Program.	A robust participant funding program for the fishing industry is required if responsible engagement is to take place. Fishing organizations work on many different issues and often on very small budgets. The importance of offshore wind and its ramifications to the fishing industry are magnitude is size. Funding needs to be available for engagement, research, professional compensation. It must be robust enough that the fishing industry can focus on the importance of this new industry that could very well displace the fishery. We cannot stress enough how important it is to have the fishing industry engaged throughout this process.
The CNSOER welcomes any additional	The Maritime Fishermen's Union is an organization representing over 1300 fish harvesters in NS and NB. In NS the MFU Local 6 is located in Sydney Bight. The whole of the MFU has had many governance level discussions and the whole of the MFU is committed to ensuring a viable fishery for our members. This means

feedback and comments.	resources and time have been awarded to making sure the fishery is protected and not displaced thought the offshore wind process. The MFU is not opposed to renewable energy. We are opposed to renewable energy in exchange for viable fisheries. We believe we have to be engaged to protect the fishery as renewable energy initiatives move forward.

Name	Chris Jones
Organization	Fishing Sector - NS Representative
Respondent Type	Fishing Sector
Attach your comments.	Click to access file.

Name	Jules LeBlanc
Organization	Ocean Pride Fisheries Limited
Respondent Type	Fishing Sector
The CNSOER welcomes your suggestions and feedback on the government identified Wind Energy Areas (Sydney Bight, Middle Bank, and French Bank) and the factors the CNSOER will use to design parcels within those Wind Energy Areas.	These banks are primarily commercial fishing harvest areas and should not be subject to Offshore Wind development. Established economic fishing activity should not be disrupted or displaced. Before any bids are approved, both levels of government through the regulator, CNSOER, should be required to engage in further consultation with any group or groups that will be directly impacted by the development of the identified areas. This would include Indigenous or other underrepresented groups, offshore industries, other stakeholders, affected fisheries, and adjacent rural communities that could be negatively impacted by the decisions of Government and CNSOER. Possible impacts to these groups or communities should be identified and scrutinized before any bids are received or licenses granted to potential developers. These steps must be taken to ensure proper consultation and engagement with smaller significant stakeholders.
The CNSOER welcomes your suggestions and feedback on bid submission criteria to be used as part of the Call for Bids process, including specific criteria, criteria weighting, scoring metrics, and evaluation methods.	As a prerequisite for offering/receiving a bid, potential bidders must demonstrate meaningful engagement with current users of identified banks regarding potential coexistence with pre-existing commercial activities; fisheries or otherwise. The absence of a reviewable engagement process creates an environment whereby bidders are not required to demonstrate potential for coexistence. There is no means for a bidder to demonstrate knowledge of how they could coexist or an understanding of the locations within the identified areas where existing users of the banks currently operate. To ensure environmental sustainability, a comprehensive environmental impact assessment and a comprehensive socio-economic impact assessment should be completed by an arms-length, third-party entity with no ties to offshore wind developers or government agencies promoting offshore wind development. Anyone whose job or income is likely to be adversely impacted by offshore wind development should receive training subsidies and be prioritized during the hiring process for supply chain and workforce development.
The CNSOER welcomes your suggestions and	Perhaps one of the most obvious omissions not identified nor referenced by the regulator is that of what is meant by “coexistence”. What does this term actually mean? Who determines how, where, when and to what degree the term “coexistence” can or should apply?

feedback on coexistence.	"Coexistence" should be defined and determined by OSW proponents and affected fishing and community interests. This is a vital step to achieve an understanding that combines subject knowledge expertise, experience, practical working requirements, and trust. The subject-matter of offshore wind development is sensitive, controversial, and has sweeping social and economic effects. Meaningful early participation by interested parties in determining "coexistence" is critical to avoid known, unknown, and unquantifiable biases against established fisheries. Commercial entities directly impacted by offshore development, including the fishing industry, must reach an understanding prior to any attempt by government to approve bids or otherwise grant or restrict offshore rights and interests. Federal, Provincial and CNSOER staff should not engage in policy and operational arbitration while simultaneously acting as regulators.
The CNSOER welcomes your suggestions and feedback on behalf of governments on considerations for fisheries' compensation.	If coexistence is not possible, the bidders, Provincial Government, and Federal Government must have a detailed framework for compensation; noting that the definition of coexistence remains to be determined. The "compensation process" must be determined by the bidders and the affected fishing industry interests. At present, we do not accept the premise that governments are developing an approach to fisheries' compensation. The information provided at the last meeting of the CNSOER FAC was that the Federal Government had not progressed at all on a compensation framework, and that it had no timeline to do so. Rather, it appeared that government was relying on industry to develop a compensation approach. No bid should be accepted prior to a compensation framework being debated and agreed upon by all interested parties. Considering that both the OSW proponents and the fishing industry possess the expertise and experience to successfully negotiate and apply coexistence and compensation frameworks in the absence of government intervention, it remains our contention that a commitment to adhere to these two policies must be a prerequisite for the authorization of any OSW bids. In addition to the above, the standard Federal requirement for an independent socio-economic and environmental assessment on the impacts of OSW must be met prior to development. Any failure to adopt and incorporate these prerequisites into the bidding process is likely to cause significant conflict, confusion, and unnecessary civil strife throughout Nova Scotian coastal communities. See appended to this submission a potential framework for compensation to be considered and discussed.
The CNSOER welcomes your suggestions and feedback on the fees for bid submissions and successful bidders.	The fees associated with bidding and receiving "submerged land" licences should parallel the fees required for offshore oil and gas licences. The costs for industry to engage with developers, the regulator, and the Government should be covered by these fees. Including but not limited to travel, hotel, meals and legal advice.

The CNSOER welcomes your suggestions and feedback on considerations and adherence to the principles listed in the Accord Acts.	In order to respect and give meaning to the term "importance" as utilized in the legislation, there must be a demonstrable and measurable effort by developers to take positive steps to increase participation of under-represented groups and to avoid or mitigate negative effects on fishing activities. This obligation may extend to a requirement to enhance fishing activities, if and where feasible (e.g., possible improvements to public harbour facilities). With respect to the consideration of effects on fishing activities during the submerged land licence issuance process, we submit the following: • Site selection must prioritize minimal impact to fish habitat considering both (a) presence of commercially viable fish species and (b) recovery time. • Turbine foundation and cable selection/construction must be respectful of integrity of marine ecosystem and materials/construction type must be selected to minimize negative impact. • Construction activities must be coordinated with local fishing season for applicable site; i.e., construction activities must avoid direct overlap with active fishing areas. This includes minimizing interference with transportation and navigational activities from site to shore (port loading/offloading). • Installation methods must be selected with an aim to mitigate negative effects of underwater noise on marine fauna (e.g. source reduction, propagation reduction, receptor protection and alternative foundation – see: https://www.slrconsulting.com/ca/insights/offshore-wind-turbines-and-underwater-noise/ See also: https://pubs.aip.org/asa/jasa/article/151/1/205/2838069/Offshore-wind-energy-development-Research) • Financial security must be provided to cover clean-up costs and fishing industry disruption that may be caused by potential debris. Case study example: https://www.nationalfisherman.com/fishermen-protest-vineyard-wind-turbine-collapse • All operational planning must prioritize navigational safety. Navigational requirements for seafood harvesters must be considered in determining setbacks/exclusion zones around turbines and any navigational routes that overlap with commercial harvesting areas. • Concern for electromagnetic currents – a precautionary approach must be employed in light of uncertainty regarding negative effects. https://pubmed.ncbi.nlm.nih.gov/39571480/ • Displacement of fishing activities should be avoided. In the event that displacement is unavoidable, the following considerations should be employed: ○ Compensation regime for displacement from buffer zone around turbine and any areas where fishing activities are restricted

	○ Mitigation of negative effects (i.e., interference should be minimized) ○ Ban/restriction on construction activities in or adjacent to critical fishing areas (harvesting/spawning/nursery)
The CNSOER welcomes your suggestions and feedback on possible considerations for community benefits programs related to offshore wind development.	A community benefits program should only be developed after a Federal "social-economic assessment" of OSW impacts on coastal communities has been completed. Ideally, this would comprise a detailed consultative reference with realistic considerations for benefits as opposed to anecdotal references. Once an assessment was completed with input ranging from Municipal governance interests to local social interests i.e. Rotary Clubs etc., a balanced framework of impacts and requirements could be established. A community benefits package should be included in the Compensation Framework. Included in the underrepresented and underserved groups are rural communities along the coast that will be directly affected and impacted. These communities are underrepresented at the government and political level because of low population numbers. These communities will be impacted at a disproportionately high level by offshore wind development and have multiple generations of residents from Acadian and Metis backgrounds. These communities should be consulted with particular attention given to their unique concerns. The workforce employed by Wind Energy companies during development of projects in Canada should be comprised of a majority Canadian workforce, including but not limited to, underrepresented groups. The community benefits program should require a commitment by bidders that any raw materials or equipment, along with manufacturing of raw materials and equipment, should be sourced or completed within Canada whenever possible.
The CNSOER welcomes your suggestions and feedback on possible terms and conditions for the draft Submerged Land Licence.	It is critical that stakeholders be provided with proposed terms and conditions for the draft Submerged Land Licence in order to provide meaningful feedback. This has not happened yet. The draft document provided does not contain actual terms and conditions but rather a limited summary of some select terms and general notions. Accordingly, what follows is some preliminary feedback based on the limited information provided: 1. Rights of the Submerged Land Licence a. Site assessment authorization (SAA) i. Assessment of environmental effects must be performed by a qualified third party; ii. Risks to benthic habitat and species that are harvested commercially must be expressly considered; b. Construction, Operations and Maintenance Authorization (COMA) i. Mitigation of harm to commercial species and marine habitat must be prioritized; c. Decommissioning and Abandonment Authorization i. Remediation of the benthic environment is critical; ii. Mitigation of negative effects with respect to local fishing efforts must be prioritized; 2. Submerged Land Licence Periods a. Development milestones should be rigorous and nonnegotiable. If at any point these milestones are consistently not being met,

	the land lease should be revoked and all assets within forfeited back to the Canadian government. The combination of the expressed "fiat" principle, i.e., "duration of a Submerged Land Licence, which must be at least 35 years", with no accompanying rationale or reference, combined with no context or definition of "Community Benefits" and "Coexistence with existing ocean users and uses" makes it difficult to provide meaningful feedback. Stakeholders should be afforded an opportunity to comment on the rationale and intended application of these concepts. 3. Termination a. This land license should be non-transferable and should be terminated immediately if it is not being used for offshore wind development on an ongoing basis. b. When is decommissioning determined and by whom? Who funds this process, the proponents, the Municipalities, the Province of Nova Scotia, the Federal Government, or the fishing industry and what is the contribution ratio? 4. Rentals and Levies a. No comment 5. Financial Assurance a. Financial security must be provided (e.g. bond/guarantee) that has independent backing; (see for example: https://cbond.ai/energy-bonds/decommissioning-bond/) b. The amount of the financial security must cover decommissioning costs inclusive of environmental remediation; c. A compensation package must be part of the terms and conditions; d. A decommissioning plan and fund must be part of the terms and conditions. 6. Engagement a. The Term & Conditions should be completed by an arm's-length third-party entity with no economic ties to the successful bidder. b. Interest Owner must demonstrate a good faith effort to address concerns raised by participants in the commercial fishing industry; c. Interest Owner must provide detailed information regarding scope of work, sufficient to inform navigational and environmental concerns; d. There must be application of a "Social-Economic and Environmental Assessment with an opportunity for stakeholder feedback; There is a need for deliberations and consultations surrounding a "decommissioning strategy including funding". 7. Required Plans a. Any plan for co-existence must directly incorporate feedback from fishing industry stakeholders; b. Any plan considering effects on fishing activities and compensation must be specific, binding, and enforceable. c. An independent environmental assessment must be part of the terms and conditions.
The CNSOER welcomes your suggestions and feedback on	The proposed funding program is of minimal value. The available funding for participating in the Call for Information is limited to reimbursement for travel, meeting attendance, and translation. There were no

considerations for a Participant Funding Program.	meetings; therefore, no reason to travel. New technology can assist with translation, for next to no cost. As noted in a previous section, funding should apply to all engagement by industry interested to do so, in order to cover at minimum the travel, hotel, meals and legal advice required for meaningful engagement with OSW developers, regulators and the Government.
The CNSOER welcomes any additional feedback and comments.	In the Strategic Direction letter, the Governments notes at paragraph 4 that the first step for Government is to "… target issuing licenses up to 3000 megawatts…" when in actuality the first step should have been to meet with Nova Scotians presently using or accessing the proposed areas of interest. Had they done this, the Governments would have been apprised of all of the potential conflicts that could arise from wind farm installation. The Government also makes mention of "Wind West Atlantic Energy" and "…an even more ambitious call for bids". One can only assume that this is referring to the Premier's public announcement that the Provincial Government, under his leadership, has a goal of 60 GW of wind energy. The proposed wind turbines require approximately 200 square kilometres to generate each gigawatt. At 60 gigawatts that is 12,000 square kilometers. Each turbine has an estimated lifespan of 20 years or less. The project will have a massive physical footprint, with far-reaching environmental impacts. Within a couple of generations, we could see up to 36,000 square kilometres, and growing, of ocean space taken over by wind farms and unusable for any other industry as there is no plan for structure removal. Not to mention the environmental damage done during the installation process. What the Government avoids mentioning, at least in public, is the mission creep of wind farms: the need to continue to expand the farms as units expire. The letter makes mention of "inclusive engagement" but this has not been borne out by the Government's efforts to-date. What is not mentioned in this letter is the need for respect for industry and commercial uses that have been an economic backbone for local and Provincial economies and the importance of maintaining them for the long-term benefit of the economy. The information available and timelines set out by all levels of government and CNSOER do not facilitate meaningful engagement. In order for any groups to participate and make informed decisions and recommendations within the consultation period, more information regarding anticipated environmental and socioeconomic impacts is necessary. There is also a need for more detailed information for all phases of the proposed projects; this includes defined areas of interest within the larger areas indicated, detailed development plans and timelines of potential negative impacts on other industries and communities. Adequate time must be afforded for critical assessment once real information is provided.
Attach your comments.	Click to access file.

Name	Neil MacMullin
Organization	Area 22 Offshore Fishing
Respondent Type	Fishing Sector

Attach your comments.	Click to access file.

Name	Ian McIsaac
Organization	Seafood Producers Association of Nova Scotia
Respondent Type	Fishing Sector
Attach your comments.	Click to access file.

Name	Justin Morrison
Organization	Port Representative for Port Morien & False Bay
Respondent Type	Fishing Sector
The CNSOER welcomes your suggestions and feedback on the government identified Wind Energy Areas (Sydney Bight, Middle Bank, and French Bank) and the factors the CNSOER will use to design parcels within those Wind Energy Areas.	These areas and in particular the Sydney Bight are not suitable areas for wind energy development when considering the negative impact on the fishing industry and marine environment. They have been chosen because the distance from shore is suitable for cabling and the shallower water reduces the cost to build. However, these banks or shallows are what makes these areas important fish habitat. They are fished commercially for species such as crab, lobster, and groundfish. Further the Sydney Bight has long been considered a sanctuary area for tuna. Windmills in the Sydney Bight will create a buffer or exclusion zone around them as well as the subsea cabling which is really problematic for the longline fisheries. Further ship traffic will be displaced and there will be more ship interaction with fixed gear fisheries such as crab and lobster. This will result in gear loss which causes ghost fishing and is a hazard to fishers especially those engaged in ground fishing as they cannot easily move away from large ships. Fishers also have concern with the electromagnetic effect from cabling, localized temperatures increases from cooling the turbines, and the acoustic impact on marine mammals. The area for wind development should be further out to sea and away from the fishing grounds and away from ship traffic. This would reduce the harmful effects and in the event of failure the debris and oil contamination would be more widespread so hopefully less harm would result.
The CNSOER welcomes your suggestions and feedback on bid submission criteria to be used as part of the Call for Bids process, including specific criteria, criteria weighting, scoring metrics, and evaluation methods.	Any bid to be eligible must have a developed plan for compensation to fishers that includes a consideration for loss of income as well as devaluation of the license asset. This cannot be a one-time payment; instead, there must be a financial contribution to the affected fishermen throughout the building phase and lifetime of the project. It is also essential that any bidders be bonded and contributed to a fund for decommissioning and removal of the wind turbines at the end of their useful life.
The CNSOER welcomes your suggestions and feedback on coexistence.	Consideration should be given to whether there are islands of sufficient size to support wind development. This way the developers would have all the benefit of the strong and consistent winds while the impact of fisheries would be greatly reduced. Any environmental contamination would be contained with this land based solution. Further, consideration should be given as to whether wind energy could be developed in existing MPAs. These areas are already closed to fishing so no further buffer zone would be needed. We would suggest that if wind turbines

	cannot be safely installed in MPAs then then are not saft to install in Sydney Bight, Middle Bank and Canso Bank.
The CNSOER welcomes your suggestions and feedback on behalf of governments on considerations for fisheries' compensation.	Fishers do not want to be compensated. They do not want to be impacted by offshore wind development. However, if these projects proceed as planned then compensation will be necessary. The compensation must account both for the direct economic loss from displacement from fishing grounds and harmful effects on commercially fished species as well as the devaluation of commercial fishing licenses. For many fishermen with limited savings and no pension plan the sale of their fishing assets including fishing licenses is their retirement plan. The compensation plan cannot be a one-time payment and must be ongoing throughout the building phase and lifetime of the project. The affected fishers much be considered broadly since the affected species travers a large geographic area and there is a spillover effect from displacement.
The CNSOER welcomes your suggestions and feedback on the fees for bid submissions and successful bidders.	This economic upside for NS seems small considering the potential for significant economic impacts on the fishing sector which is a major economic driver in the Province.
The CNSOER welcomes your suggestions and feedback on considerations and adherence to the principles listed in the Accord Acts.	Fishermen want to know how large the buffer area will be around the wind turbines and cabling both during construction and in operations phases. The developers may have criteria that is less restrictive than Transport Canada or Canadian vessel insurers. There should be dialogue with Transport Canda and marine insurers about this issue with reporting back to the fishing sector. We are very concerned.
The CNSOER welcomes your suggestions and feedback on possible considerations for community benefits programs related to offshore wind development.	Bidders should be expected to commit to a regular dialogue with a fishing liaison committee to be composed of area representatives and fishing association representatives.
The CNSOER welcomes your suggestions and feedback on possible terms and conditions for the draft Submerged Land Licence.	A well thought out compensation plan for fishers, a commitment to a fund for decommissioning as well as a bonding requirement, a commitment to regular dialogue with a fishing liaison committee.

Name	Kris Vascotto
Organization	Nova Scotia Fisheries Alliance for Energy Engagement
Respondent Type	Fishing Sector

The CNSOER welcomes your suggestions and feedback on the government identified Wind Energy Areas (Sydney Bight, Middle Bank, and French Bank) and the factors the CNSOER will use to design parcels within those Wind Energy Areas.	It is important to begin with the general acceptance that all wind energy areas are being used by multiple sectors in the fishery, although there are clearly areas of higher and lower usage. Because of this overlap of activity, developers and the Regulator should anticipate that impacts on the fish and seafood sector are guaranteed. No development should be undertaken at the expense of existing users. Additionally, it should be noted that there are many scientific surveys that have survey sites throughout the proposed wind energy areas, including both those led directly by the Regulator and those funded and executed collaboratively and independently by the fishing industry. These survey sites are often randomly placed, making it impossible to propose parcels that will not interact with their fulsome execution. Assessments by the Regulator and experience from other jurisdictions undergoing offshore wind development have demonstrated that excluding those surveys from areas of the marine environment increase uncertainty in stock assessment and can challenge long-standing time series used for robust stock assessment and determination of total allowable catches. We encourage that the Regulator be strongly engaged on the possible impacts of any parcel selection on these long-standing surveys, including how future surveys and assessments can be supported. In reviewing the fishery footprint information available, there are severe gaps in the information. Direct discussions with the harvesting sector have demonstrated significant shortcomings in our shared understanding of the fishing footprints of the small vessel fleet, pelagic gears and historically important fishing areas. Prior to selecting parcels for potential development, we encourage strong consideration as to the potential impacts of development on the marine environment and fishing activity in areas adjacent/near to the parcels being considered in addition to the areas within the parcels themselves. This is especially important as impacts to these neighbouring areas directly will also impact the ability to deliver on the principle of the Accord act which requires due consideration of the effects on fishing activities. For example, simply by taking a parcel of a wind energy area and the resultant exclusion of the harvesting sector, harvesters will shift to a neighbouring area, directly impacting the activities of those existing harvesters in neighbouring areas and those displaced to those areas. We are concerned that robust marine spatial planning required to help guide effective selection of parcels is incomplete because of an absence of robust information on important pieces that underpin the determination of the balance between resource users. For example, the real fishing footprint is underrepresented by available information and geotechnical information key to appropriately planning locations for possible development are not available. Spatial decisions without a full spectrum of information available to support those decisions risks creating conflicts with other spatially restrictive initiatives such as marine conservation, shipping lanes, fishery regulations, other resource users and harvesting activities. When a parcel is considered for selection, due consideration must also be given to the identification of an appropriate reference/control site to support future monitoring programs. Efforts must be taken at the selection stage to ensure control sites are identified early and available for required monitoring efforts. The NSFAEE has provided the CNSOER with our assessment of harvesting activities within each WEA. We ask that this previous submission be considered by the CNSOER when seeking to de-conflict the establishment of future parcels

	and fishing activity. Additionally, we provide the following general description of harvesting activities below, but note that this list is incomplete and does not consider the importance of these areas to contributing to the overall fishery resources: French Bank: • Extensive activity for halibut (fixed-gear longline), large pelagics (pelagic longline, rod and reel), snow crab (single traps), lobster (varied configurations), sea cucumber (mobile gear), small pelagics (gillnet and jig) and groundfish (mobile gear). • Historical activity for a variety of species and gear types. Middle Bank: • Extensive activity for halibut (fixed-gear longline), large pelagics (pelagic longline, rod and reel), snow crab (single traps), sea cucumber (mobile gear), groundfish (mobile gear) and scallop (mobile gear). • Historical activity for a variety of species and gear types, including herring (mobile gear). Sydney Bight: • Extensive activity for halibut (fixed-gear longline) and snow crab (single traps). Proximal to very important areas for mobile gear groundfish.
The CNSOER welcomes your suggestions and feedback on bid submission criteria to be used as part of the Call for Bids process, including specific criteria, criteria weighting, scoring metrics, and evaluation methods.	We would like to thank the CNSOER for presenting an initial list of evaluation criteria to be considered as part of the offshore call for bids process. Beyond those identified, we would recommend that the following be included: Engagement History with All Stakeholders: Successful proponents will be required to engage with a large stakeholder community, including a fish and seafood sector that stands to be profoundly impacted by development. For this reason, understanding the engagement history of proponents with stakeholders (especially the fishing industry) is important to determine if they are 'prepared' to engage with stakeholders in a productive and collaborative fashion. History from other jurisdictions has demonstrated that stakeholder engagement is well practiced by some developers and not others. Previous Success with Co-existence Relationships: Similar to the above, it is important for developers to demonstrate what they consider to be their successes and shortfalls in co-existence relationships in past projects with impacted stakeholders. A simple reference check with impacted groups in other jurisdictions will support a determination if a developer is the right fit for the Nova Scotia offshore. This should include a brief history of their experience and success in mitigation, monitoring and adaptive management that supports those positive co-existence relationships. This review should also include an understanding of what the developer considers to be a successful 'coexistence' relationship as this definition has varied substantially across other global developments. Evidence-Based Coexistence Plan: We encourage the CNSOER to require an evidence-based plan on how a particular developer intends to pursue and achieve co-existence. This includes a clear understanding of how the stakeholders may potentially be impacted by their development, how they intend to determine, avoid and mitigate impacts. Evaluation must include a demonstration of financial ability to deliver on those commitments for co-existence via provision of securities prior to undertaking any project activities.

	Inclusion of Fisheries in the Biodiversity Plan: When undertaking the evaluation of any biodiversity plan, we encourage the review to include an understanding of how their proposed plan will dovetail with an assessment of current and future fisheries productivity. This will require that the biodiversity plan not just include an ongoing evaluation of the status of the commercially important fish species in the area, but also includes monitoring of the ecosystem components that support those fish species. This is key to ensuring the principles of the Accord Act concerning fisheries are achieved. Establishing a Minimum Threshold to Passing Evaluations: We note that this is the first of what may end up being regular call for bid processes for the offshore area. For this reason, we encourage that the Regulator establish a baseline pass/fail threshold for each area of evaluation. Under no circumstances should the 'highest' score simply be allowed to 'pass', as there is a minimum level of professionalism and expertise that a developer must have to gainfully operate in the offshore waters of Nova Scotia. Establishing and communicating a minimum qualifying score for all evaluation criteria is key to ensuring a vibrant offshore wind industry. Potential Weighting of Criteria: It is difficult to comment on the weighting of criteria without a fulsome understanding of the proposed scoring process, however, we offer the following general principles to be considered. Proponents with a history of building/operating projects should be generally scored higher than those without this experience. In many respects, the evaluation criteria will require an assessment of the history of the proponent, meaning that those without any operational history will be challenged to identify their intent with any degree of rigour. We suggest a high weighting be provided on the evaluation and plan of coexistence with existing stakeholders (with a special focus on the fish and seafood sector), including the history of previous proponent interactions with stakeholders in other projects. More experience with stakeholders and more positive relationships with those stakeholders should surely lead to a higher score as this is a key component to the successful sharing of our marine space. We also encourage a high weighting on environmental monitoring plans, with a special emphasis on those structures deemed to be sufficiently robust to inform delivery on the principles of the Act (i.e. impacts on fishing activities). Those with well-considered program designs (e.g. Before-After-Control Impact (BACI) program) should be scored higher than those with just notional concepts of monitoring. Evaluation Methods: We suggest that the evaluation approach should be highly structured and sufficiently transparent such that the public/stakeholders will be able to understand the performance of each proponent alongside areas where improvement should be pursued, all supporting the reasons why a developer has been accepted or rejected. We also encourage that the evaluation must be undertaken in an objective and unbiased fashion, potentially by an independent third-party panel to remove any perceptions of bias. Underpinned by a clear and publicly available understanding of how applications may be scored, this will support the establishment of a civil licence for development supported by all Nova Scotians. Evaluation of co-existence and stakeholder engagement should be supported by some external 'reference' check to validate the positions being put forward by the

	developer. We suggest that fisheries related evaluation components should be subject to a greater focus than other pieces in the application process and be evaluated separately from other stakeholders (i.e. First Nations, communities, etc.).
The CNSOER welcomes your suggestions and feedback on coexistence.	It is important to understand the tiered priority approach desired by the fish and seafood sector. Our initial target is to avoid any conflict via good siting of developers outside of the fishing footprint. Where development and harvesting activities overlap, effective mitigation to allow the fishing activity to continue unabated is clearly a priority. Compensation is viewed as a last resort as the fish and seafood sector wishes to continue their traditional harvesting activities. A coexistence plan must include all three tiers of priorities to be considered complete. The definition of coexistence will differ with each wind energy area because of different harvesting practices and sectors involved. We encourage the Regulator to consider striking unique stakeholder-driven coexistence advisory groups for each wind energy area that reflects these differences across the landscape. Coexistence must consider the full range of impacts, including direct and indirect. Coexistence must include an acknowledgement there are impacts that are yet to be determined, meaning a structure to address those impacts must be considered. Co-existence is not spatially restricted to only the parcel being developed. It extends beyond those boundaries. For instance, it could be effort relocation or large-scale ecosystem impacts. The spatial boundaries of co-existence must be acknowledged by all proponents. Meaningful co-existence includes a sharing of environmental information, survey outcomes and monitoring information collected by the developers on an ongoing basis. Just as the harvesting sector is expected to share information on their activities in the wind energy areas, developers will also need to provide this level of transparency. This sharing should be clearly described by the coexistence plan. Developers seeking to support coexistence must present clear commitments to Regulators for monitoring, reporting and for compliance to reporting obligations. All this data should be public. An important lesson from other jurisdictions is the ‘openness’ of development areas for monitoring and research by outside researchers and agencies (including academia and DFO). Coexistence also means that any lost access for research and stock assessments are mitigated as part of the authorization. Coexistence with other users and the compounding nature of these accommodations must be considered. Any mitigation proposed for one ocean user will have knock-off effects. For example – a shipping industry that needs to redirect their routes leading to increased costs (fuel), will increase interactions with fishing gear (i.e. moving inside and ploughing under gear). Mitigating vessel traffic to other lanes will increase the overlap and conflicts. These downstream impacts must be considered as a part of coexistence. Coexistence can take many forms. Preferential vessel contracts to existing users of the areas demonstrates a priority to support those that may be impacted and this should be outlined and rewarded in the coexistence plan. It must consider those impacts extending to the shore through considerations of competition for labor and port access. The Regulator is encouraged to achieve a basic minimum structure of coexistence that all developers must adhere to. This will create a level playing field for both

	developers and stakeholders, irrespective of geographic location. This structure would include the roles and responsibility of each partner to the process (i.e. developer, harvesters, government) and would also include important aspects pertaining to timescale (i.e. co-existence is relevant until project site returned to natural state) and how cumulative impacts should be considered.
The CNSOER welcomes your suggestions and feedback on behalf of governments on considerations for fisheries' compensation.	We would like to thank the CNSOER for confirming that the "…continuance of existing activities of ocean users, including the commercial fishing and seafood sectors, are guiding principles for advancing offshore wind in Canada." This sentiment is echoed by the fish and seafood industry. We encourage the Regulator to ensure that a clear compensation framework that identifies obligations and responsibilities be complete and in place prior to the issuance of seabed tenure. This is necessary to provide those impacted by development an understanding of how they will be treated by the compensation scheme and will also ensure all developers are aware of their obligations as they pertain to compensation. We understand that the delivery of a compensation framework is incredibly complex and will require a unique approach to each sector impacted by development, especially as direct and indirect impacts are considered. Implementation will be guided by the much-anticipated framework being prepared by governments. We suggest that the body responsible for delivery of compensation should be independent of developers, perhaps via an independent third party advised by the fish and seafood sector, developers and Regulators. Each wind energy area would likely need its own independent compensation committee for similar reasons that each wind energy area would also require its own coexistence committee as described above. We encourage the development of a royalty funded reserve fund to support the delivery of compensation costs associated with unforeseen/cumulative effects. We note that these impacts are not yet 'known', making it very challenging to identify the level of security required to address those needs. The use of a royalty fund would allow refunds to be provided to developers/Regulators if developers were successful is establishing projects with few to no unanticipated impacts. We have appended to this submission the framework principles for compensation as developed by the membership of the NSFAEE. We ask the Regulator to turn to this document for further guidance on the development and delivery of a compensation model.
The CNSOER welcomes your suggestions and feedback on the fees for bid submissions and successful bidders.	At minimum, we expect that the fees to be charged for the issuance of submerged land licenses would be commensurate with the costs incurred to the Canadian economy to manage those processes. For instance, operational costs of the Regulator and support costs of the various government departments to support offshore wind energy should be offset by the fees collected. In a similar vein, costs incurred by the seafood sector to engage in offshore wind development (as required to ensure their interests are addressed) should also be sufficiently offset by Regulator fees. It is also conceivable that fees collected from the land lease process could be allocated to support infrastructure investments required for offshore wind development (i.e. berthage or port development). We encourage the Regulator to align the fees with the expected cost such that developers are truly paying the cost of development and these costs are not being passed on to the Canadian public.
The CNSOER welcomes your suggestions and feedback on considerations and adherence to	It is important to first identify the full scope of 'fishing activities' that are included under the scope of the Principles of the Accord Acts. From our perspective, this is not only the act of harvesting, but also includes transit to/from the grounds, management of those resources, sustainability certifications, safety, whether those resources persist after the impacts of development are considered (via impacts to broodstock or greater ecosystem changes), etc. and can extend to the

the principles listed in the Accord Acts.	relationships between/within fleets and sectors that may become strained as displacement leads to new activity overlaps. In summary, understanding the impacts on fishing activity needs to consider both the direct and indirect impacts of development and the context in which the fishery occurs prior to development being undertaken. The principles in the Accord Acts are not limited in scope to strictly the footprint of a development or the boundaries of a wind energy area. Fisheries activities outside of the wind energy areas that rely on those resources/habitats/spawning contributions/ecosystem services supported by the relevant wind energy areas and the resource therein must also be considered. We view these responsibilities as operating synergistically with the Department of Fisheries legislated responsibilities to protect fish and fish habitats, perhaps via the individual assessments that we foresee as being required for all offshore wind projects. Delivering on the Accord principles is heavily challenged by a lack of background/baseline information, data gaps and a clear lack of understanding on the large-scale impacts of offshore wind on the marine ecosystem. There is a need to pro-actively design and implement monitoring programs to support the delivery of those principles. For example, how can the impacts on fishing activities be determined if there is a gap on exactly what and how fishing activities are being conducted? How can the resources that those activities rely on be well understood in the absence of a robust monitoring program prior to development to understand those landscape linkages supported by the marine resources within the selected parcels? Without these pieces, it is very challenging to understand how these principles will be successfully delivered upon
The CNSOER welcomes your suggestions and feedback on possible considerations for community benefits programs related to offshore wind development.	The determination of benefits to communities will be challenging, especially as broad commitments are being made that do not necessarily align with real expected deliverables of offshore wind projects. While we are not in a position to validate or challenge claims made to economic activity or employment levels, we can offer some general advice on the assessment of those benefits. The definition of communities must be broad to include those near and far afield from developments. This includes both First Nation and non-First Nation communities and no community type should be prioritized over another. A valid determination of community benefits requires that a fulsome socioeconomic assessment be undertaken such that the benefits and costs can be fully described. Consideration of community benefits must also include consideration of community costs. For example, increased labour demand may also lead to associated social challenges (i.e. housing and substance abuse), which will act to offset benefits. Any assessment of benefits should include consideration of those mitigation approaches intended to blunt detrimental impacts to communities. We encourage the Regulator to partake in broad and early discussions with the Nova Scotia Federation of Municipalities to help identify key metrics and approaches needed to define the scope and extent of community benefits.
The CNSOER welcomes your suggestions and feedback on possible terms and conditions for the draft Submerged Land Licence.	We encourage a broad jurisdictional scan to help inform candidate terms and conditions that will be sufficiently robust to protect health, safety, the environment and the interests of existing stakeholders. Once this scan is complete, it will act as a basis for more meaningful discussion. Based on our discussions with Regulators, we expect that there will be clear and concise language related to the following:

	Timelines: Similar to petroleum, there must be a period after which any tenure lapses. This is important to ensure that tenure is provided with the intent of development. This will prevent speculation and support good stewardship. Commitment for Compensation: Terms and conditions should include a clear requirement for developer obligations pertaining to compensation. This must include the spatial and temporal scope of compensation obligations. Baseline Environmental Monitoring: Given that a developer will only bid on a parcel they intend to develop and the poor state of baseline information needed for effective mitigation, developers must be made aware of their obligation to support baseline environmental monitoring plans that are to the satisfaction of the Regulator. Furthermore, these monitoring plans should be activated within a short period (i.e. 6 months) of land tenure being granted and should be in place for the full duration of planning, construction, operation and decommissioning. Should this not be achieved, that will be reasonable grounds to strip tenure from a developer because of non-compliance. Fisheries Baseline Assessment: Developers must be obligated to collect information on fishing activities in and near potential developments. This extends beyond identifying the species being targeted and must include identification of how fishing is occurring, technologies being used, seasonal usage, participation and the spatial footprint of those activities. Exclusion Zone: Developers must be obligated to minimize the size and duration of exclusion zones where practical and be required to communicate the establishment of these areas to other marine users, including the fishing industry. Cable Installation: Where authorizations include cable installation, conditions should include required target burial depths of cables to reduce fishing gear interaction. Requirements for use of cable installation methods that minimize seabed disturbance must be described. Approaches for cable protection measures that do not create hazardous seabed obstructions for bottom-contacting fishing gear should also be described. Obligation to Fund Royalty Funded Environmental Effects Model: We believe that a royalty funded model to support accommodations linked to cumulative/unforeseen effects of offshore wind energy remains the only safe path to protect stakeholders and developers alike. We expect to see language obligating developers to financially support this model in the terms and conditions. Public Record of Stakeholder Discussions: Given that transparency will be an important component to social licence for offshore wind development, we encourage the Regulator to include in conditions a requirement for a public record of stakeholder engagements and commitments by the developer. In other jurisdictions, we have seen many of these conversations and commitments become ‘hidden’ by confidentiality, making it difficult to evaluate either the effectiveness of those measures or the comparability with other neighbouring projects. Commitment to Removal/Restoration: Upon termination of a subsea land licence, the developer must be obligated to return the seabed to its natural, pre-construction condition. This includes removal of all infrastructure. We encourage that the Regulator collect securities from developers prior to construction (i.e. at land tenure stage) to ensure such activities are possible in the event of financial failure of the parent developer. We understand that the language proposed by the Regulator includes a 2-year maximum decommissioning and abandonment period but must note that while having a maximum timeline on decommissioning is useful to ensure it is not extended for prolonged periods of time, it should not preclude

	the time needed to bring the environment back to its natural state which may require a window beyond the 2-year period. Commitment to Adhere to Prescribed Activity Restrictions: Any work being undertaken in the marine environment must bear in mind sensitive periods for fish and fish habitat. There is growing concern that developers may be provided an opportunity to skirt activity restrictions. To prevent this, we encourage the inclusion of a clear condition requiring that those sensitive periods described by the Regulator be respected at all stages of the project. Obligation to Participate in Wind Energy Advisory Groups: We anticipate that there will be a proliferation of advisory committees established with stakeholders, developers and Regulators to support this burgeoning industry. We encourage the inclusion of a specific condition that obligates the developer to not only participate in these groups, but to also have a coordination/cost sharing role with them. We envision that the activities of these groups would be available for public review as per the public registry of stakeholder interactions described above.
The CNSOER welcomes your suggestions and feedback on considerations for a Participant Funding Program.	It is important to understand that the burden of offshore wind development is being placed directly on the fish and seafood sector without any supports being offered to assist them in this engagement. The sector is being forced to build their own internal expertise to effectively engage and guide development with the hope of preserving their traditional activities that would be otherwise unimpacted if it were not for this new player in the marine space. This approach is unsustainable. At minimum, there should be funds provided to the harvesting sector to establish capacity that allows them to engage in the development process. This would be to the benefit of developers and the fish and seafood sector, as more timely and informed engagement would become the norm as opposed to this file often being relegated as lower priority as the sector battles the vagaries of wild fish and seafood harvesting. The current model focuses on travel costs and per diems to participate in meetings which misses the core need of the sector to support capacity that is focused on engagement with offshore wind development. We encourage expansion of the supports to the industry to achieve that needed capacity and to support ongoing discussions with Regulators and developers as development proceeds.
The CNSOER welcomes any additional feedback and comments.	The membership of the NSFAEE continues to advocate for the completion of a robust socioeconomic assessment of the fish and seafood sector prior to the development of offshore wind development. This work is required to determine the magnitude and direction of expected impacts and to identify opportunities for the two industries to work towards a common goal of improving the prosperity of Nova Scotia through additive economic activity. While there remains profound uncertainty on the approach to impact assessment of offshore wind projects and whether they will be considered a project of 'national' interest, we continue to insist that any offshore wind project, irrespective of size, be subject to a robust impact assessment process. We encourage an active role of the CNSOER in these reviews, noting that they are the Regulator of the offshore space and are best positioned to speak to impacts and mitigation. We discourage any abdication of this responsibility to the Province of Nova Scotia because of the complexity of the issues and the need to draw on other development experience in the offshore waters of Nova Scotia.
Attach your comments.	Click to access file.

Name	Requested to be kept confidential

Organization	Requested to be kept confidential
Respondent Type	Fishing Sector
The CNSOER welcomes your suggestions and feedback on the government identified Wind Energy Areas (Sydney Bight, Middle Bank, and French Bank) and the factors the CNSOER will use to design parcels within those Wind Energy Areas.	direct fishing in the area is one thing but it is unknown the effects the wind turbines would have on the surrounding areas
The CNSOER welcomes your suggestions and feedback on bid submission criteria to be used as part of the Call for Bids process, including specific criteria, criteria weighting, scoring metrics, and evaluation methods.	proven track record
The CNSOER welcomes your suggestions and feedback on coexistence.	why displace an industry (fisheries) for another
The CNSOER welcomes your suggestions and feedback on behalf of governments on considerations for fisheries' compensation.	when it comes to compensation, it should not only go to those directly affected by the turbines,but the construction of such. if they displace fishers then any compensation must also include anyone fishing in sectors nearby as this is where the displaced fishers will be moving to
The CNSOER welcomes your suggestions and feedback on the fees for bid submissions and successful bidders.	any bid must include a guaranteed fund for clean up when the turbines have run their life span
The CNSOER welcomes your	any vessel being used for supply, crew, etc. would need funding to bring it up to Transport Canada regulations

suggestions and feedback on considerations for a Participant Funding Program.	
The CNSOER welcomes any additional feedback and comments.	instead of placing the turbines in areas that will directly affect fishers, why not place the turbines in the MPA area of St. Anns Bank. Fishers are not permitted in the area already so it wouldn't disrupt fishers as much.if the turbines don't bother anything then this shouldn't be a problem

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The CNSOER welcomes your suggestions and feedback on the government identified Wind Energy Areas (Sydney Bight, Middle Bank, and French Bank) and the factors the CNSOER will use to design parcels within those Wind Energy Areas.	Bottom hurricanes.salt spry make up ,wind ,sea ice ,vessel traffic ,are all factors but the most worrisome effects would be to fishers which cover large areas of thease projected sights.fishing is the cornerstone of Nova Scotia's economy and thease areas are some of the richest fishing grounds in the province.they will severely impact livelihoods of harvesters if they can not be utilized.
The CNSOER welcomes your suggestions and feedback on bid submission criteria to be used as part of the Call for Bids process, including specific criteria, criteria weighting, scoring metrics, and evaluation methods.	I'm opposed to any construction on the ocean that limits fish harvesters from doing the job in the areas that have been fished for over a century.but knowing money and politics wil ultimately prevail over common sense and fisherman's needs at least give some work to local businesses not the ones lining the politicians pockets
The CNSOER welcomes your suggestions and feedback on coexistence.	Offshore wind is a total waste of money and resources in my opinion as they will eventually fade away and crumble under environmental conditions in the Atlantic Ocean .it is not only not a priority but of no use or need whatsoever in my opinion
The CNSOER welcomes your suggestions and feedback on behalf of governments on	Why not just leave us alone to do our activities and harvest our resources.why do we have to be sacrificial lambs .fish harvesters are being pushed out by money and politics.we don't want compensation we want to be left alone however fair compensation would age to be figured among harvesters .fair market value would be starting point on licences boats and gear.Sydney bite where I'm from is a huge area and although the area considered is a small part of the overall area it is a

considerations for fisheries' compensation.	spawning ground and avtivities from wind farms will affect the hole area not just the place where the turbines would go so everyone in the entire area would have to be compensated the same
The CNSOER welcomes your suggestions and feedback on the fees for bid submissions and successful bidders.	I could not care less it won't affect me or any other harvester
The CNSOER welcomes your suggestions and feedback on considerations and adherence to the principles listed in the Accord Acts.	I have nothing to offer on this subject I'm sure some spoofs will be encountered by businesses around thease farms which will help there buisness but it will be at the cost of our industry
The CNSOER welcomes your suggestions and feedback on possible considerations for community benefits programs related to offshore wind development.	It would be a nice fest to donate to worthy causes within each projected area I guess .
The CNSOER welcomes your suggestions and feedback on possible terms and conditions for the draft Submerged Land Licence.	Don't apply take your turbines and leave why in the world would you put power and steel in the ocean to be battered and torn by the sea when it's most certainly cheaper easier and would enjoy much much more longevity on land than in the water .plus you wouldn't be potentially bankrupting a century's old industry that's the backbone of our province .im just a lowly harvester but it seems like a no brainer to me .perhaps some public information on what's to be expected from these farms in terms of power made and sold ,cost of construction for each of them turbines ,what will they benefit the people of these areas etc .there's nothing but speculation on the part of the public .make us c what you c coming from this mockery
The CNSOER welcomes your suggestions and feedback on considerations for a Participant Funding Program.	How can one become a participant
The CNSOER welcomes any additional feedback and comments.	We harvesters in these areas bother no one .every year there's something new put forth by Dfo or the federal government to hinder our progress and make things a little more difficult for us .we are tired by the public as whale killers ,"rich fisherman" lol ya rite we are bearing the brunt of aboriginal reconciliation ,every year there's more and more put on us but we keep going we persevere.but taking away our fishing grounds and spawning areas is something we cannot overcome.we will simply cease to exist and I guess that's ok to most but not to our

	harvesters we will most likely fight to exist or fade into obscurity under the weight of money and government.thanks for you time

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Respondent Type	Fishing Sector
The CNSOER welcomes your suggestions and feedback on the government identified Wind Energy Areas (Sydney Bight, Middle Bank, and French Bank) and the factors the CNSOER will use to design parcels within those Wind Energy Areas.	The province of Nova Scotia already has large areas of ocean designated as marine protected areas that are closed to most all fishing activities. I don't believe the fishers in NS should have to deal with more areas they can't access to make a living.
The CNSOER welcomes your suggestions and feedback on bid submission criteria to be used as part of the Call for Bids process, including specific criteria, criteria weighting, scoring metrics, and evaluation methods.	No good for NS.
The CNSOER welcomes your suggestions and feedback on coexistence.	I believe this is an issue which cannot be resolved. The province of Nova Scotia depends too heavily on the ocean to support its communities , especially rural areas. There should be no gambling with one of the provinces main income generators.
The CNSOER welcomes your suggestions and feedback on behalf of governments on considerations for fisheries' compensation.	There will be no amount of compensation that could fix being denied access to parts of the ocean or the destruction of parts of it.

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Respondent Type	Fishing Sector

The CNSOER welcomes any additional feedback and comments.	Given the accelerated timeline, we do not believe there is sufficient time allocated within the current process to review the relevant data and respond meaningfully. We have been forced to respond without a comprehensive socioeconomic or environmental impact assessment. This problem is compounded by incomplete or vague information on the specific areas to be impacted. Detailed analysis of the effects of each refined area of interest on the fishing industry is yet to be determined. We need this information in order to properly assess and respond. In short, we need more time allocated to review data at each stage and respond appropriately.
Attach your comments.	Click to access files.

Name	Requested to be kept confidential
Organization	Requested to be kept confidential
Respondent Type	Fishing Sector
Attach your comments.	Click to access files.

Industry

Name	Ken Ilacqua
Organization	Q ENERGY France SAS and Hanwha Ocean Co., Ltd.
Respondent Type	Industry
The CNSOER welcomes your suggestions and feedback on the government identified Wind Energy Areas (Sydney Bight, Middle Bank, and French Bank) and the factors the CNSOER will use to design parcels within those Wind Energy Areas.	Q ENERGY France SAS ("QEF") and Hanwha Ocean Co., Ltd. ("HOC"), both affiliates to Hanwha Corporation are jointly applying to the prequalification for Offshore Wind Land Tenure Process NS25-1R. QEF and HOC would like to thank CNSOER for the opportunity to provide input on Nova Scotia's Offshore Wind Call for Information NS25-1R and fully support the list of factors to be considered. All those factors are essential to determine the minimum impact, maintain technical feasibility, and ensure acceptability. Based on our experience in offshore wind projects development and construction in France and South Korea, QEF and HOC would like to share the following comments on the government identified Wind Energy Areas (Sydney Bight, Middle Bank, and French Bank) and the factors the CNSOER will use to design parcels within those Wind Energy Areas: Spatial extent: In our view, the spatial extent of identified parcels should be sufficient to ensure adaptability to site conditions, coexistence with maritime traffic and fisheries, environmental impacts avoidance and reduction. A power density exceeding 5 MW/km² for floating and 7 MW/km² for bottom-fixed is a generic limit to give sufficient flexibility to adapt to emerging coexistence or environmental issue in the course of the project development, but this will need to be confirmed once more technical information are available (site conditions, turbine selection, etc). Those figures are usually considered in the case of a project area that has already been partially de-risked through site specific studies (wind, soil, metocean, etc). Considering that the site conditions information provided to prequalified entities before a bid is expected to be limited, it is recommended to leave a sufficient buffer in case of significant constraints and in order to allow for selection of the optimum sites. This is particularly relevant with regard to soil conditions, which are expected to be rather complex in these areas and might show significant vertical/lateral heterogeneity across the sites as well as localized geohazards. Taking into account the optimal power density, a sufficient buffer for geotechnical and environmental hazards and potential corridors for maritime traffic or fishing vessels, we recommend that the parcel size being at least 250 km ² for a 500MW project / 500 km² for 1 GW project. Note that these numbers are indicative, and that considering the current level of uncertainty, larger parcel sizes will ultimately allow developers to locate the best sites and select optimum project characteristics. Project expansion: We recommend that first parcels are, as far as possible, located in a way that they would not be impacted by the wake effect of future expansion. It would be easier for future projects to take into account the wake effect of existing or planned windfarms in their business models rather than to find and determine compensation mechanisms. Generating capacity:

	The project capacity should be balanced between, on the one hand, a minimum capacity sufficient to justify investments related to derisking studies and to provide for attractive contractual volumes for suppliers and, on the other hand, an acceptable amount of CAPEX from a financial risk perspective. Our recent projects experience has shown that in the current market, with foreseen wind turbines reaching 20+ MW, needed investment for port upgrades, critical pathway to industrialization with OEMs and local supply chain, a capacity of 500MW is becoming a critical lower limit for commercial OW projects. We, therefore, would recommend to increase the scale of OW projects to a more ambitious and more efficient size such as 750 MW for floating and 1000 MW for bottom-fixed, giving sufficient visibility and volume for contractors while allowing for potential future extensions. Such increase would still be in line with the up to 5000 MW limit of total capacity assigned in the Government Strategic Direction Letter Regulator lead site studies/surveys: Site surveys and associated studies are a critical part of early de-risking of these sites. Based on our experience in various countries and contexts, it is often a challenge to find the compromise between technical standards, timeline and available budgets. Exchanges between the regulator and the industry on these often can be valuable to all parties. If deemed helpful by the regulator, QEF and HOC are therefore willing to engage in these topics.
The CNSOER welcomes your suggestions and feedback on bid submission criteria to be used as part of the Call for Bids process, including specific criteria, criteria weighting, scoring metrics, and evaluation methods.	QEF and HOC support the inclusion of non-price criteria within the Call for Bids process, reflecting recent offshore wind auction practices in Europe. Properly designed, non-price criteria can deliver tangible benefits to local communities and help achieve an appropriate balance between technical deliverability, local content and supply-chain development, environmental performance, and long-term financial sustainability. To be effective, non-price criteria should carry a meaningful relative weight in the evaluation (e.g. up to 30% of the total score, as recently recommended by the European Commission guidance).
The CNSOER welcomes your suggestions and feedback on coexistence.	QEF and HOC fully recognize that coexistence between offshore wind and existing and future ocean users in Canada–Nova Scotia is a priority and must be addressed throughout both the land tenure process and the full project lifecycle. We believe authorities and developers shall be committed to early, continuous, and transparent engagement with affected users and rights holders, supported by robust marine spatial planning, clear communication protocols, and the application of the mitigation hierarchy (avoid–minimize–mitigate–monitor) based on best available data. Beyond managing and mitigating impacts, we believe offshore wind can deliver wider shared benefits for the marine community, including improved baseline scientific understanding through enhanced monitoring, strengthened maritime communications and navigation support, and increased offshore safety and emergency response capability (e.g. better situational awareness, coordination and infrastructure to support search and rescue).
The CNSOER welcomes your suggestions and	In Atlantic Canada as in Europe, fishing is an extremely important economic and cultural sector that is also subject to stresses and challenges related to the influence of global warming on resources, environmental regulation, and the

feedback on behalf of governments on considerations for fisheries' compensation.	modernization of the fleet and the attractiveness of fishing professions. Our experience of the coexistence between offshore wind and fishing activities, particularly in France, leads us to recommend an approach based on transparency and consultation, and to distinguish the impacts and their compensation mechanisms in different ways according to the different phases of the projects: Development, Construction, and Operation. Development phase The main challenges relate to the offshore derisking surveys that should take place in the most sensitive way possible in order to: • Not disturb fishing activities during on site surveys • Harmonize the protocols of environmental studies so that compartments linked to commercial species can be in line with the ongoing and future monitoring of the existing resource • Share data and study results to increase scientific knowledge on resources • Implement the socio-economic impact assessment protocols for the following phases. In addition, during the development phase, measures to support the fisheries sector adaptation to the future fishing environment should be considered through a consultative and collaborative approach. Not only with regards to offshore wind but on a broader perspective including decarbonization, climate change, fleet modernization, or sustainability. Specific tender requirements could be considered particularly regarding: • Agreements between the developer and the representative bodies of the fishery sector to formalize the terms of consultation • Implementation of a coexistence plan • Establishment over evolution of existing consultation body formed by representatives of the fishery sector, the developer and the regulator • The frequency of meetings • The requirement for the appointment of a fisheries liaison person within the local OW project team • The presence of a local fishery liaison officer (FLO) during the offshore geological campaigns at sea. Construction phase Although careful planning for work schedules and installation sequences can allow for finding arrangements to avoid and mitigate the impacts on fishing activities, the establishment of safety zones and restriction of fishing areas could still lead to a potentially significant direct impact on fishermen’s incomes. It is therefore necessary to put in place a transparent, robust, and consensual methodology for measuring the economic impact of this phase on fishermen's incomes, based on the area's economic value and taking into account the potential for the transfer of activity to other areas. Cooperation between academic research and professional representatives is key to establishing a science-based, robust methodology to calculate individual financial compensation during this phase. Operation phase Individual direct compensation should not be necessary during the operational lifetime of the wind farm. Such a regime would be uncorrelated with the real economic impact and difficult to predict for the developer and could create unfair

	personal situations among fishermen or create potential financial windfall. A more comprehensive government mechanism aimed at the fishing industry as a whole via a tax contribution or royalties, directed towards projects or institutions promoting the development or adaptation of the fishing sector, would be more appropriate. It also makes it possible to take this contribution into account in the economic model with the necessary visibility and to ensure establishing deployment of offshore wind can benefit the fishing industry generally. In addition, best practices experience for coexistence are also based on the involvement of fisheries in new activities related to offshore wind power (guard vessels, participation in environmental campaigns, liaison officer, etc.) as well as on common arrangements in terms of training, safety at sea and port infrastructure.
The CNSOER welcomes your suggestions and feedback on the fees for bid submissions and successful bidders.	QEF and HOC consider the proposed fees as appropriate to the offshore land tenure process and would suggest that the associated revenues be earmarked to develop the necessary infrastructures and capacities through public investments and, in fine, could also benefit to the local economy and communities.
The CNSOER welcomes your suggestions and feedback on considerations and adherence to the principles listed in the Accord Acts.	QEF and HOC support the principles set out in the Accord Acts and agree they should be applied consistently through the land tenure process and across the full project lifecycle. We believe the key is transparency and open competition. In practice, this means clear visibility of upcoming work packages and procurement timelines, supplier engagement early enough for Canadian companies to prepare, and contracting approaches that do not create unnecessary barriers for Canadian firms or Canadian-resident workers. On under-represented groups, we support including practical measures that are credible and measurable (not just statements of intent). This can include targeted outreach and training pathways with local institutions, and supplier engagement actions that help bring new entrants and diverse businesses into the supply chain. On fishing, we agree it should be a priority consideration during the submerged land licence process, not only later at permitting. Early engagement with fishing interests, use of the best available fisheries data, and a clear avoid–minimize–mitigate–monitor approach should be expected from bidders, together with practical coexistence measures to reduce disruption as much as possible.
The CNSOER welcomes your suggestions and feedback on possible considerations for community benefits programs related to offshore wind development.	QEF and HOC support the development of a clear and practical community benefits approach for offshore wind in Nova Scotia. In our view, it should focus on benefits that are tangible, easy to administer, and aligned with the project lifecycle (development, construction and long-term operations). We suggest prioritizing measures such as local jobs and training pathways, support to local suppliers (including capability-building for smaller businesses), and targeted funding for community-led initiatives in coastal areas most affected by offshore activity. Where appropriate, it can also include support for marine safety, environmental monitoring and local research partnerships. Crowdfunding could also be an option to consider in order to encourage communities' involvement and support for offshore wind projects in Nova Scotia.
The CNSOER welcomes your suggestions and	QEF and HOC support including clear, standardized terms and conditions in the Submerged Land Licence, provided they remain proportionate and allow flexibility

feedback on possible terms and conditions for the draft Submerged Land Licence.	as projects mature from early development into permitting, construction and operations. In our view, the licence should include high-level obligations at award stage (engagement, coexistence, reporting, community benefits, supply chain/workforce intent) and progressive details through milestones, where requirements become more specific as the project definition and impact assessments are developed. This avoids forcing detailed commitments too early while still ensuring accountability. On duration and periods, we agree the licence should be at least 35 years and, in practice, long enough to cover the full project lifecycle. An initial development/permitting phase (including site investigations and de-risking), grid and transmission readiness, project design and contracting, any required port and infrastructure upgrades, construction, operations (typically 25–30 years), and where applicable lifetime extension and end-of-life obligations (including decommissioning, recycling and waste management). The license should also provide a clear phase structure and transparent rules for extensions and justified changes. For milestones, we recommend a small number of clear, realistic gates (e.g., site investigations initiated/completed, key permits submitted/secured, financial close, start of construction, COD), with reasonable cure periods and mechanisms for justified schedule changes (force majeure, regulatory delays, transmission/grid connection timing). For monitoring and reporting, it helps if CNSOER defines a simple reporting template and KPIs (engagement activity, Canadian participation, inclusion actions, community benefits delivery, coexistence measures and outcomes), with reporting frequency that is light in early development and increases during construction and early operations.
The CNSOER welcomes your suggestions and feedback on considerations for a Participant Funding Program.	QEF and HOC support CNSOER establishing a Participant Funding Program. If the objective is meaningful and balanced engagement, the program should be simple to access, transparent, and focused on enabling participation from groups that otherwise would not have the time or resources to engage effectively. In our view, eligible costs should cover practical items such as time and expenses for participation in meetings and workshops, independent technical or legal support to review project information, and translation/communications support where needed. The program should also have clear eligibility criteria, straightforward claim processes, and predictable timelines for approvals and reimbursement.

Name	Mequela Moreno
Organization	ECOncrete
Respondent Type	Industry
The CNSOER welcomes your suggestions and feedback on the government identified Wind Energy Areas (Sydney Bight,	Beyond technical and wind resource considerations, parcel design should explicitly account for ecological factors, including benthic habitat sensitivity, species use patterns, and cumulative effects across parcels. Integrating these considerations early can reduce future permitting risk and support more durable project outcomes. Where appropriate, parcel design should allow flexibility for nature-inclusive infrastructure approaches that minimize seabed disturbance and support

Middle Bank, and French Bank) and the factors the CNSOER will use to design parcels within those Wind Energy Areas.	ecological function over time, while maintaining a clear emphasis on the avoidance of sensitive habitats. Where sensitive areas can be avoided, such approaches may include the use of bio-enhancing admixtures within conventional ("grey") infrastructure as a means to further reduce disturbance and support ecological function. This approach should complement, not replace, habitat avoidance. Experience from offshore and marine infrastructure projects indicates that careful foundation and scour protection design can reduce impacts and, in some cases, contribute to habitat complexity Finally, continued engagement with Indigenous communities, fisheries, scientists, and local stakeholders will be essential to refining parcel boundaries and validating assumptions not fully captured in existing datasets.
The CNSOER welcomes your suggestions and feedback on bid submission criteria to be used as part of the Call for Bids process, including specific criteria, criteria weighting, scoring metrics, and evaluation methods.	Environmental Sustainability and Coexistence The inclusion of a Biodiversity Plan as an evaluation criterion is essential. CNSOER should explicitly assess how bidders incorporate design-based measures(nature inclusive design and infrastructure) that minimize seabed disturbance and manage ecological risk over the full life of a project. Where sensitive habitats can be avoided, proposals that integrate nature-inclusive infrastructure approaches, including the use of bio-enhancing admixtures within conventional marine infrastructure, could be evaluated as part of a comprehensive strategy to reduce impacts and support ecological function. Such measures should be framed as complementary to, not a substitute for, habitat avoidance and protection, and be accompanied by clear monitoring, reporting, and adaptive management commitments. Project Plan and Pre-Feasibility Study Within the Project Plan and Pre-Feasibility Study, CNSOER may wish to evaluate how bidders assess site-specific ecological conditions early in project development, nature inclusive infrastructure and incorporate those considerations into foundation selection, scour protection, and construction sequencing. Proposals that demonstrate early integration of ecological risk management and habitat considerations may reduce downstream permitting uncertainty and improve long-term project performance. Supply Chain The Supply Chain Development and Workforce and Training Plans present an opportunity to support local and regional economic benefits. Evaluation criteria could recognize proposals that leverage local labor, regional manufacturing capacity, and marine construction expertise, including the use of locally sourced materials and services where feasible. To ensure credibility and transparency, bidders that propose local hiring or domestic supply chain commitments could be asked to demonstrate and substantiate those commitments through documented workforce plans, supplier agreements, or verifiable tracking of labor and material sourcing across the project lifecycle. Supporting domestic supply chains for offshore wind infrastructure, including concrete production, fabrication, and installation, can strengthen project resilience while delivering measurable community benefits aligned with provincial priorities. Engagement and Community Benefits The emphasis on inclusive engagement with Mi'kmaq of Nova Scotia, African Nova Scotian and African Descent communities, and other underrepresented and underserved groups is appropriate and necessary. Consideration may be given to

	evaluating how engagement efforts extend beyond consultation to include meaningful participation in environmental monitoring, workforce development, and long-term stewardship activities associated with offshore wind projects. To support accountability and transparency, bidders could be asked to demonstrate and verify these commitments through documented engagement plans, partnership agreements, defined roles and responsibilities, and clear metrics or reporting mechanisms that show how participation will be implemented and sustained over the project lifecycle.
The CNSOER welcomes your suggestions and feedback on coexistence.	Coexistence with existing and future ocean users should be addressed as a core consideration throughout the land tenure process and across the full lifecycle of offshore wind projects. From an infrastructure and materials perspective, coexistence is supported through early engagement with ocean users, incorporation of site-specific knowledge into parcel design and project planning, and the application of nature-inclusive design approaches that minimize disturbance while maintaining operational and environmental performance. Design-based strategies that reduce seabed disturbance during installation and over the operational life of a project can help lower conflict with fisheries, navigation, and other marine uses by reducing ecological risk and uncertainty. Where sensitive areas can be avoided, the use of bio-enhanced concrete admixtures within conventional marine infrastructure may be considered as part of a broader nature-inclusive design approach to support ecological function without constraining access or introducing additional operational complexity. Ongoing monitoring, transparent reporting, and adaptive management remain critical to coexistence, allowing projects to respond to observed environmental conditions and stakeholder feedback over time. Integrating these elements into parcel design, bid evaluation, and project requirements can help ensure offshore wind development proceeds in a manner that is compatible with multiple ocean uses while supporting long-term environmental and community objectives.
The CNSOER welcomes your suggestions and feedback on behalf of governments on considerations for fisheries' compensation.	The coexistence of offshore wind development with commercial fishing and seafood sectors should remain a guiding principle throughout the land tenure, licensing, and project lifecycle. While compensation mechanisms are an important tool to address displacement or disruption, consideration should also be given to measures that reduce long-term impacts and support fisheries resilience over time. In this context, governments may wish to recognize the role of design-based environmental approaches that minimize seabed disturbance and support ecological function as a complementary element to fisheries compensation. Where sensitive habitats can be avoided, the use of nature-inclusive infrastructure approaches, including bio-enhancing admixtures within conventional marine infrastructure, may contribute to increased habitat complexity and biodiversity over the long term. Such habitat outcomes can support species abundance and ecosystem function, which are directly relevant to the sustainability of fishing activities. While these approaches should not replace compensation where impacts occur, they may help offset longer-term ecological effects, reduce uncertainty for fisheries, and support shared use of marine space over the operational life of offshore wind projects. Integrating habitat creation and enhancement considerations alongside compensation frameworks can help ensure that fisheries' interests are addressed not only through short-term financial mechanisms, but also through investments in the long-term health of marine ecosystems.
The CNSOER welcomes your	The proposed one-time nonrefundable bid submission fee and the additional fee upon issuance of a submerged land license provide clarity and predictability for

suggestions and feedback on the fees for bid submissions and successful bidders.	the offshore wind process. In applying these fees, CNSOER may wish to consider whether the fee structure could also be used to incentivize verified public-value outcomes that align with provincial priorities. For example, consideration could be given to fee adjustments, credits, or comparable mechanisms for projects that demonstrate verifiable commitments to nature-inclusive design approaches, including the use of bio-enhancing admixtures within conventional ("grey") marine infrastructure, where sensitive habitats can be avoided and ecological risk is appropriately managed. Similar consideration could be extended to projects that provide documented evidence of meaningful community engagement, including sustained participation by Mi'kmaq of Nova Scotia, African Nova Scotian and African Descent communities, as well as verified local supply chain and workforce utilization. Any such consideration should be based on clearly defined eligibility criteria and supported by documentation, reporting, and verification mechanisms where appropriate. Linking elements of the fee structure to demonstrated environmental and community outcomes could reinforce accountability, reduce long-term project risk, and encourage alignment with provincial economic and sustainability objectives, while maintaining a fair and transparent competitive process.
The CNSOER welcomes your suggestions and feedback on considerations and adherence to the principles listed in the Accord Acts.	With respect to ensuring a full and fair opportunity for Canadian corporations and individuals to participate on a competitive basis, consideration may be given to evaluation and procurement approaches that recognize demonstrable use of Canadian-based suppliers, materials, and services, including marine construction, fabrication, and installation activities. Clear documentation and verification of domestic participation can help ensure that these opportunities are meaningful and consistent with the intent of the Accord Acts. The emphasis on increasing participation by under-represented groups is appropriate and aligns with broader provincial and federal priorities. Consideration may be given to how proponents demonstrate not only intent, but implementation, through workforce development plans, supplier partnerships, and engagement strategies that provide measurable pathways for participation by Mi'kmaq of Nova Scotia, African Nova Scotian and African Descent communities, and other under-represented groups across the project lifecycle. In relation to fishing activities, early and ongoing consideration of effects during the submerged land license issuance process is critical. Design-based approaches that minimize seabed disturbance, reduce construction impacts, and support ecological function can help manage potential interactions with fisheries over time. Where sensitive areas can be avoided, the use of nature-inclusive infrastructure approaches, including bio-enhancing admixtures within conventional marine infrastructure, may complement coexistence objectives by supporting habitat stability while maintaining access and operational compatibility. Taken together, these principles can be advanced through transparent evaluation criteria, evidence-based commitments, and adaptive management approaches that support competitive participation, inclusive economic benefits, protection of fishing interests, and long-term environmental stewardship.
The CNSOER welcomes your suggestions and feedback on possible considerations for community benefits programs	Community benefits are most effective when they are integrated into project planning and delivery rather than treated as standalone commitments. From an infrastructure and materials perspective, community benefits can be advanced through approaches that align habitat creation, environmental performance, workforce development, and local economic participation over the full lifecycle of offshore wind projects.

related to offshore wind development.	One option is to prioritize design-based community benefits, where project design choices support both ecological and socio-economic outcomes. This can include nature-inclusive infrastructure approaches that minimize environmental disturbance and, where appropriate, contribute to habitat creation or enhancement, as well as the use of materials and construction methods that are compatible with local industry capabilities. Community benefits programs may also be strengthened by emphasizing local workforce participation and supply chain engagement, supported by clear training pathways, partnerships with regional institutions, and documented commitments to local sourcing where feasible. Clear expectations for how these commitments will be implemented, tracked, and reported can improve transparency and accountability. In addition to employment and procurement, community benefits can include meaningful participation in environmental monitoring, habitat assessment, and long-term stewardship activities, providing sustained opportunities for local communities, including Indigenous and under-represented groups, to remain engaged throughout the project lifecycle.
The CNSOER welcomes your suggestions and feedback on possible terms and conditions for the draft Submerged Land Licence.	Environmental Performance, Habitat Creation, and Coexistence Terms and conditions may wish to recognize the role of design-based approaches in minimizing seabed disturbance and managing ecological risk over the full life of a project. Where sensitive habitats can be avoided, license conditions could allow flexibility for nature-inclusive infrastructure approaches, including the use of bio-enhancing admixtures within conventional marine infrastructure, as one means of supporting ecological function and habitat stability. Such approaches should complement, not replace, avoidance, protection, and mitigation requirements, and support coexistence with fisheries and other ocean users by reducing long-term ecological uncertainty. Monitoring and Reporting Clear, enforceable monitoring and reporting requirements are essential to ensuring that environmental and coexistence commitments are implemented as intended. License conditions could require baseline data collection, post-installation monitoring, and periodic reporting related to seabed conditions, habitat use, and ecological performance. Adaptive management provisions that allow design or operational adjustments based on observed outcomes may further strengthen long-term environmental and coexistence objectives. Community Benefits and Inclusive Participation (as Related to Project Delivery) From a project delivery perspective, terms and conditions could support community benefits through requirements for verifiable commitments related to local workforce participation, supplier engagement, and participation in monitoring or stewardship activities. Clear documentation and reporting expectations can help ensure that community benefit commitments translate into measurable outcomes over the license term. License conditions may also consider requiring proponents to demonstrate and report on the use of local and regional supply chains where feasible, including materials production, fabrication, and marine construction services. Transparent reporting on workforce and supplier participation over the project lifecycle can support the principles of the Accord Acts while strengthening project resilience.
The CNSOER welcomes any	The Strategic Direction letter provides an important foundation for offshore wind development in the Canada–Nova Scotia offshore. From an infrastructure and

additional feedback and comments.	environmental performance perspective, the broader regulatory process would benefit from continued clarity on how design-based environmental performance and habitat considerations are expected to be addressed consistently across land tenure, licensing, and subsequent permitting stages. As offshore wind projects advance, there is an opportunity to ensure that the regulatory framework remains technology-neutral while outcome-oriented, allowing proponents to propose design approaches that reduce seabed disturbance and support ecological function where sensitive habitats can be avoided. This may include, where appropriate, the consideration of nature-inclusive design approaches, such as the use of bio-enhancing admixtures within conventional marine infrastructure, as part of broader impact-reduction and habitat creation strategies. Clear guidance on how such approaches are evaluated and monitored can reduce uncertainty and support defensible decision-making. The regulatory process may also benefit from explicitly linking habitat creation and enhancement objectives to monitoring, reporting, and adaptive management provisions. Providing pathways for proponents to incorporate monitoring results into project oversight can help ensure that habitat-related outcomes are evidence-based and responsive to site-specific conditions over time. Overall, a regulatory approach that enables innovation in design while maintaining strong environmental safeguards, clear performance expectations, and transparency across agencies will support durable offshore wind development and long-term public confidence in the process.

Name	Elisa Obermann
Organization	Marine Renewables Canada
Respondent Type	Industry
Attach your comments.	Click to access file.

Name	Hisham Sheriteh
Organization	2H Offshore Limited
Respondent Type	Industry
The CNSOER welcomes your suggestions and feedback on the government identified Wind Energy Areas (Sydney Bight, Middle Bank, and French Bank) and the factors the CNSOER will use to design parcels within those Wind Energy Areas.	Parcel identification within the designated Wind Energy Areas should be informed by early engineering and constructability considerations alongside environmental, navigation, and coexistence factors. In particular, parcel boundaries and spatial extents should reflect realistic turbine spacing, installation access, cable routing, and offshore construction sequencing to support deliverable project layouts. Providing adequate buffers within parcels is important to accommodate uncertainty identified during site investigation and to allow flexibility as engineering design is refined. Parcel designs that balance proximity to shore with port access, grid connection feasibility, and offshore installation constraints are more likely to support timely and cost-effective project delivery. Early alignment between parcel design assumptions and foreseeable development and construction methodologies will reduce downstream risk and support successful progression through subsequent licensing and bid processes.

The CNSOER welcomes your suggestions and feedback on bid submission criteria to be used as part of the Call for Bids process, including specific criteria, criteria weighting, scoring metrics, and evaluation methods.	Bid submission criteria should place strong emphasis on demonstrated offshore project delivery capability and technical maturity, alongside financial strength. Greater weighting should be given to evidence-based delivery experience, constructability, and execution planning rather than high-level concepts alone. Scoring metrics should clearly differentiate between conceptual proposals and those supported by pre-feasibility or early FEED-level studies, including defined installation methodologies, logistics assumptions, schedule realism, and identification of key offshore risks and mitigations. Evaluation methods should test internal consistency across bid submissions, ensuring alignment between project plans, schedules, supply-chain assumptions, and financing strategies. Proposals that demonstrate realistic offshore construction windows, vessel availability, port readiness, and workforce ramp-up should be scored more highly. Overall, bid evaluation frameworks that reward technical readiness, delivery realism, and credible offshore execution planning are more likely to result in projects that can be delivered safely, on schedule, and at predictable cost.
The CNSOER welcomes your suggestions and feedback on coexistence.	Coexistence considerations should be integrated into offshore wind development from the earliest stages of site selection and parcel design through construction, operations, and decommissioning. Early identification of existing and future ocean users, including fisheries, navigation, and other marine activities, allows potential conflicts to be addressed through spatial planning and project layout rather than through late-stage mitigation. From a project delivery perspective, engineering-led coexistence measures—such as defined navigation corridors, phased construction sequencing, flexible cable routing, and installation timing aligned with key fishing and marine activity periods—can materially reduce impacts while maintaining safety and construction efficiency. Clear expectations for coexistence planning within bid submissions, supported by realistic execution strategies and ongoing engagement throughout the project lifecycle, will support durable coexistence outcomes and reduce delivery risk for all stakeholders.
The CNSOER welcomes your suggestions and feedback on behalf of governments on considerations for fisheries' compensation.	Approaches to fisheries' compensation should be clear, transparent, and consistently applied, with early engagement used to distinguish between temporary construction-related disruption and longer-term impacts on fishing activity. Clear definitions of impact types and duration can help ensure compensation mechanisms are proportionate and evidence-based. From a project delivery perspective, early spatial planning, construction sequencing, and installation timing can reduce the extent and duration of disruption to fishing activities, thereby limiting the need for compensation. Compensation frameworks that are aligned with realistic construction methodologies and schedules are more likely to be effective and equitable. Establishing predictable compensation principles early in the land tenure and project development process can provide greater certainty for fishing communities, developers, and regulators, while supporting coexistence and reducing the risk of delay during project execution.
The CNSOER welcomes your suggestions and feedback on the fees for bid	The proposed bid submission and licence issuance fees appear consistent with the objective of encouraging serious and capable project proponents while discouraging speculative participation. From a delivery perspective, fee structures that promote early commitment and technical readiness can support more efficient regulatory and project development processes.

submissions and successful bidders.	It may be beneficial to ensure that fee levels are considered alongside bid evaluation criteria that emphasise demonstrated technical capability and project delivery readiness, so that the process continues to attract proponents with both financial capacity and credible offshore execution experience. Clear communication of how fees align with regulatory oversight and project lifecycle milestones can further support transparency and confidence in the Call for Bids process.
The CNSOER welcomes your suggestions and feedback on considerations and adherence to the principles listed in the Accord Acts.	The principles set out in the Accord Acts provide an appropriate framework for ensuring fair participation, inclusive economic benefits, and consideration of existing ocean uses within offshore renewable energy development. Clear articulation of these principles early in the land tenure and licensing process supports transparency and predictability for all participants. From an offshore project delivery perspective, adherence to these principles is most effective when integrated into procurement planning, supply-chain development, and workforce strategies at an early stage of project development. Early clarity on expectations enables proponents to design realistic execution plans that support broad participation while maintaining safety, quality, and schedule certainty. Consideration of fishing activities during the submerged land licence issuance process is particularly important where engineering-led spatial planning, construction sequencing, and installation methodologies can be used to avoid or minimise impacts. Aligning regulatory principles with practical delivery considerations will support both effective implementation and durable coexistence outcomes.
The CNSOER welcomes your suggestions and feedback on possible considerations for community benefits programs related to offshore wind development.	Community benefits programs are most effective when they are clearly defined, predictable, and aligned with the phases of offshore wind project development. Early clarity on expectations enables proponents to integrate community benefits into project planning in a realistic and sustainable manner. From a delivery perspective, community benefits that focus on long-term capacity building—such as workforce development, skills training, and participation in the offshore wind supply chain—can provide durable local value beyond the construction phase. These approaches are most effective when aligned with project schedules and the practical requirements of offshore execution. Transparent governance and clear eligibility criteria for community benefits programs can support equitable participation, reduce uncertainty for proponents and communities, and contribute to successful project delivery while maintaining trust throughout the project lifecycle.
The CNSOER welcomes your suggestions and feedback on possible terms and conditions for the draft Submerged Land Licence.	Clear, well-defined terms and conditions within the Submerged Land Licence can provide greater certainty for proponents and support effective project delivery across the full lifecycle of offshore wind developments. Licence conditions that are aligned with realistic development timelines and offshore execution constraints can reduce schedule risk and support timely progression from site investigation through construction and operations. The inclusion of clear development milestones, reporting requirements, and review points can support regulatory oversight while allowing appropriate flexibility to accommodate site-specific conditions, engineering optimization, and phased development approaches. Milestones that are outcome-focused rather than overly prescriptive are more likely to support successful delivery.

	Licence durations that reflect the long-term nature of offshore wind assets are appropriate, particularly where early-stage development activities, construction windows, and operational lifecycles must be accommodated within a single licensing framework. Alignment between licence terms, coexistence requirements, supply-chain development expectations, and monitoring obligations can support transparency, accountability, and efficient project execution.
The CNSOER welcomes your suggestions and feedback on considerations for a Participant Funding Program.	A Participant Funding Program can support meaningful and informed participation in offshore wind development where it is clearly scoped, transparent, and proportionate. Funding that enables stakeholders to access independent technical, environmental, or legal expertise can improve the quality of engagement and feedback while supporting more efficient regulatory and project development processes. From a delivery perspective, clear eligibility criteria, defined reimbursable activities, and predictable timelines for funding availability are important to avoid delay or uncertainty. Alignment between the Participant Funding Program and key stages of the land tenure and licensing process can help ensure that engagement is timely and constructive. Transparent governance and administration of the program will support confidence among participants and proponents, while contributing to well-informed decision-making and durable project outcomes.
The CNSOER welcomes any additional feedback and comments.	Overall, the Strategic Direction and associated Call for Information provide a clear and structured framework for advancing offshore wind development in a manner that balances delivery certainty, coexistence, and long-term benefits. Continued emphasis on technical realism, early engineering maturity, and alignment between regulatory processes and offshore execution constraints will support efficient project delivery and durable outcomes. Ongoing clarity, consistency, and transparency across the land tenure, licensing, and bid evaluation processes will be important in maintaining market confidence and attracting proponents with the capability to successfully deliver offshore wind projects over the full asset lifecycle.

Name	Abby Watson
Organization	The Groundwire Group
Respondent Type	Industry
The CNSOER welcomes your suggestions and feedback on the government identified Wind Energy Areas (Sydney Bight, Middle Bank, and French Bank) and the factors the CNSOER will use to design parcels within those Wind Energy Areas.	While cost-effective monopile foundation technology is technically viable in water depths up to 60 meters, installation of monopile foundations above 50-55 meters can carry additional cost. The most cost-effective areas of the Sydney Bight wind energy area could be maximized by making slight adjustments to the wind area boundaries with the aim of reducing the overall average water depth. The offshore wind industry is working to develop "super-fixed" or "extra-large" foundation technologies designed to extend fixed-bottom offshore wind installation into water depths up to 80-100 meters. The UK government is currently taking input on updates to its Contract for Differences (CfD) electricity offtake scheme ahead of the 8th Allocation Round for new projects, with a new “Other Deepwater Offshore Wind” technology category being proposed for consideration separate from the existing fixed and floating schemes. New hybrid technologies are being developed that would apply some floating wind concepts to a fixed bottom structure, unlocking development in transitional depths from 60-120 meters. The UK government’s proposed updates recognize that additional support is needed

	for these early-stage innovations, which have not yet been fully commercialized. See their proposal here: https://assets.publishing.service.gov.uk/media/694018efcfacd5e888491fe0/ar8-scheme-changes-consultation.pdf We recommend CNSOER offer parcels within the Sydney Bight in a phased approach that identifies: (1) Tier 1 parcels in 50-60m depths suitable for immediate deployment with current technology; (2) Tier 2 parcels in 60-80m depths developable with near-commercial super-fixed technologies; and (3) reserve areas in 80-100m depths for future calls as technologies achieve full commercialization. This approach would maximize usable area while maintaining technical feasibility and supporting the business case for emerging technologies by establishing clear expectations for future leasing rounds. -General Parcel Design Principles- We support the government's comprehensive approach balancing multiple factors. For density assumptions, we recommend erring on the side of conservatism given geotechnical uncertainties, environmental micro-siting needs, cable routing requirements, and technology evolution. Parcel design should coordinate with transmission planning. We recommend identifying preferred transmission corridors that could serve multiple parcels, designing parcel boundaries to facilitate shared infrastructure where feasible, and coordinating with regional transmission studies to reduce cumulative impacts and create cost-sharing opportunities. Nova Scotia will see the strongest commercial interest in its offshore wind development opportunities if clear avenues to offtake are identified before offering lease areas. -Multi-Developer Coexistence Within Wind Energy Areas- ScotWind's "plan-led" approach offers useful precedent for managing multiple developers within Wind Energy Areas. The Scottish Government first identified 15 broad "Plan Options" (similar to CNSOER's Wind Energy Areas), then allowed developers to propose their own project boundaries within these areas. Crown Estate Scotland received 74 applications and selected 17 projects based on capability, experience, and other evaluation criteria. Where applications overlapped, the highest-scoring projects were awarded. Each Plan Option had maximum total area limits preventing over-subscription. For transmission infrastructure specifically, Crown Estate Scotland grants non-exclusive development rights for cable corridors to avoid creating "ransom strips" in congested areas, and requires coordination among developers with adjacent lease areas on cable routing, construction timing, and shared infrastructure opportunities. We recommend CNSOER: (1) if using a similar approach where developers propose boundaries within Wind Energy Areas, establish clear evaluation criteria for managing competing applications in overlapping areas; (2) set maximum total area limits per Wind Energy Area as ScotWind did; (3) grant non-exclusive rights for cable corridors and require coordination obligations in licence terms; and (4) reserve corridors for future projects to ensure first-mover developments don't create obstacles for later projects.
The CNSOER welcomes your suggestions and feedback on bid	-Technical Expertise and Project Delivery Capacity- We recommend CNSOER assign significant weight to specific offshore wind project experience and demonstrated stakeholder engagement track records.

submission criteria to be used as part of the Call for Bids process, including specific criteria, criteria weighting, scoring metrics, and evaluation methods.	Scotland's ScotWind leasing prioritized "capability, experience, and financial resources" to identify "projects that best demonstrated their ability to deliver," distinguishing between direct offshore wind experience (highest value), adjacent relevant experience (moderate value), and access to expertise through partnerships (some value). The Sabin Center for Climate Change Law's annual survey of opposition to renewable energy facilities in the United States demonstrates an alarming trend: a 32% increase in contested projects identified since the previous year. Other research shows local opposition has contributed to nearly one-third of U.S. transmission projects being delayed or cancelled. Successful U.S. offshore wind projects like Vineyard Wind and South Fork Wind invested heavily in community engagement, conducting 90+ outreach events and negotiating substantive community benefit agreements, while projects that failed to invest in early authentic engagement have faced years of delays. We expect the role of stakeholder buy-in to be even more important to success in Nova Scotia's offshore wind market. We recommend CNSOER: (1) prioritize successful offshore wind project development experience, which is distinct from experience in offshore oil and gas; (2) require evidence of stakeholder engagement capability including track records with Indigenous communities, fishing industries, and coastal municipalities; (3) weight these criteria heavily in scoring given Nova Scotia's emerging market and the outsized role that early movers will play in shaping local attitudes toward offshore wind; and (4) consider bonus scoring for innovation in equity and inclusion. -Balancing Local Content with Competitive Pricing- We strongly support robust local content strategies and workforce development that leverages Nova Scotia's natural strengths. ScotWind required all applicants to submit supply chain development statements but strategically did not score them as part of the competitive evaluation for seabed awards. Instead, these commitments became binding contractual obligations once developers signed option agreements. This approach prevented a "race to the top" where developers made unrealistic commitments to win leases, allowed for meaningful commitments based on realistic assessment of supply chain capabilities, and focused competition on capability and delivery rather than who could promise most local content regardless of feasibility. We recommend: (1) identify Nova Scotia's competitive advantages in ports, marine expertise, shipbuilding/fabrication, and research/education infrastructure; (2) prioritize multi-value investments like port upgrades that support offshore wind and broader marine industries; (3) avoid requirements for local content where Nova Scotia lacks competitive supply such as turbine manufacturing or specialized vessels; (4) set realistic achievable targets with flexibility; and (5) learn from European precedents that evolved toward requirements for operations/maintenance bases and workforce training rather than broad manufacturing mandates.
The CNSOER welcomes your suggestions and feedback on coexistence.	-Offshore Wind and Biodiversity - Positive Outcomes- International evidence demonstrates offshore wind can coexist with and enhance marine biodiversity when properly designed. Numerous studies document "reef effects" where turbine foundations create new hard substrate habitat supporting increased biodiversity of fish, crustaceans, and other marine organisms. A recent study from Aberystwyth University indicates that offshore wind farms may create beneficial new habitat to support lobster populations.

	These positive outcomes depend on early engagement with marine scientists, baseline studies, adaptive management plans, and long-term monitoring. We recommend CNSOER emphasize potential for offshore wind to contribute positively to marine ecosystems in biodiversity plan evaluation rather than treating biodiversity solely as a mitigation issue, and recognize developers who propose robust monitoring and adaptive management. -Small-Scale Fisheries Coexistence Model- European research shows small-scale fisheries coexistence can reduce conflict when supported by: (1) early planning and co-design involving fishing communities before major decisions; (2) meaningful stakeholder participation through formal structures giving fishing representatives genuine influence; and (3) coordinated governance with clear processes for ongoing communication and conflict resolution. The Gulf of Maine Council on the Marine Environment offers extensive experience with cross-border fisheries management, ecosystem-based ocean planning, and balancing multiple ocean uses. We recommend CNSOER engage with the Council to learn from New England offshore wind experience, participate in regional marine planning, access existing data on Gulf of Maine fisheries and habitat, and build relationships with New England fishing communities navigating similar coexistence questions.
The CNSOER welcomes your suggestions and feedback on behalf of governments on considerations for fisheries' compensation.	We strongly recommend fisheries compensation programs be administered by an independent organization or government body rather than negotiated project-by-project. This approach provides: (1) consistency and fairness avoiding vastly different compensation for similar impacts; (2) reduced transaction costs and stakeholder burdens; and (4) clearer accountability through transparent processes. European models for fishing compensation are not a useful example for Nova Scotia due to vastly different commercial fishing regulatory schemes. However, a group of 11 U.S. states recently launched an Offshore Wind Fisheries Compensation Fund. The formal processes needed to administer the fund and open it to fishers are still under development. See their website here: https://www.rfainfo.com/Home/Index We recommend: (1) establish a Nova Scotia Offshore Wind Fisheries Compensation Program administered by DFO, Nova Scotia Fisheries and Aquaculture, or an independent body; (2) develop standardized methodologies for assessing fishing effort, calculating losses, and determining compensation rates, with stakeholder input and technical assistance; (3) create a compensation fund capitalized by developer contributions based on project size and location; (4) include fisheries representatives in governance; and (5) plan for learning and adaptation based on experience. This model benefits both developers (certainty about obligations) and fishing interests (appropriate compensation through credible process) while reducing project risk and costs compared to uncertain protracted negotiations.
The CNSOER welcomes your suggestions and feedback on the fees for bid submissions and successful bidders.	The proposed CAD $250,000 non-refundable bidding fee plus $750,000 upon licence issuance may inadvertently create barriers limiting competition and excluding capable developers. Offshore wind markets, particularly early-stage, often include developers who conduct initial de-risking before securing final financing or partnering with larger entities. This upfront cash commitment may deter smaller specialized developers with deep expertise, early-stage development teams, Indigenous-led entities, and innovative developers willing to take early-market risks.

	We recommend: (1) convert to performance bond or guarantee rather than cash payment, demonstrating financial capacity without requiring cash upfront; (2) make the bidding fee refundable for unsuccessful bidders; (3) structure successful bidder fees as milestone-based payments tied to project progress; (4) consider project-size scaling; and (5) provide alternatives for Indigenous participation including exemptions, reductions, or loan programs. The goal should be attracting the most qualified developers capable of delivering successful projects, not simply entities with most cash available for upfront fees.
The CNSOER welcomes your suggestions and feedback on considerations and adherence to the principles listed in the Accord Acts.	We strongly support embedding equity and participation considerations in the legislative framework. To implement these principles effectively, we recommend: (1) develop clear guidance on how principles will be evaluated in bid scoring; (2) define "under-represented groups" clearly; (3) provide resources and support through participant funding and technical assistance programs; and (4) establish accountability mechanisms making commitments binding licence conditions with regular reporting requirements. For fishing activities consideration, we recommend requiring detailed fishing impact assessments as part of bids showing engagement with fishing interests, quantified effects, and specific mitigation measures. Fishing community representation in the evaluation process could help build trust and more resilient project outcomes.
The CNSOER welcomes your suggestions and feedback on possible considerations for community benefits programs related to offshore wind development.	-Provincial Leadership in Framework Development- We strongly recommend the Province establish community benefits framework criteria and provide active support in negotiations rather than leaving communities to negotiate independently with developers. Power imbalances, information gaps, inconsistency across projects, and transaction costs can easily undermine community engagement outcomes. The Northeast Grid Planning Forum's August 2025 study "Community Powered Progress: A Pathway to Greater Community Participation in Transmission Infrastructure Projects" provides directly applicable insights for linear infrastructure affecting multiple communities. Key findings include: communities with partial direct ownership "win a true seat at the table and can have a more active role" in project development; balance of power in negotiations changes at various stages requiring accountability mechanisms; and early meaningful engagement before benefits are finalized is essential. The study developed a "continuum" concept showing how communities can progress from simpler benefit models toward deeper participation including ownership. See more here: https://www.northeastgrid.org/s/Community-Powered-Progress_081425.pdf We recommend the Province: (1) establish guiding principles for early engagement, transparency, proportionality, accountability, and community self-determination; (2) identify benefit categories including direct economic benefits, infrastructure investments, community services, environmental investments, capacity building, and ownership participation; (3) provide technical and financial support through independent advisors, model agreement templates, and navigator services; and (4) facilitate multi-community coordination ensuring equitable distribution. -Range of Community Benefits Approaches- The Northeast Grid Planning Forum research identifies four categories forming a continuum from less to more intensive community participation: (1) In-Kind Community Benefits - tangible facilities or services with limited community control; (2) Community Benefit Funds - monetary funds for community-chosen priorities with some allocation discretion; (3) Direct Ratepayer Benefits - bill credits or rate

	reductions particularly valuable for low-income households requiring utility coordination; and (4) Ownership Participation - direct ownership stakes with governance rights and profit sharing offering greatest long-term benefits and control but requiring significant capital and capacity. Rather than discrete options, this continuum recognizes communities can progress over time as they build capacity and resources. We recommend: (1) allow flexibility in benefit approaches appropriate to circumstances; (2) provide graduated support with communities pursuing complex structures receiving greater assistance; (3) create enabling mechanisms for ownership participation including financing programs, federal partnership, and legal templates; and (4) pilot innovative approaches in designated projects to test and learn. -Balancing Developer Capabilities with Community Needs- Community benefits represent real costs borne by developers, electricity offtakers, or broader ratepayer bases. However, well-designed benefits can reduce overall costs by avoiding delays. One-third of projects face delays from opposition (Niskanen Center 2024). The Northeast Clean Energy Connect transmission project in Maine provides a concrete example: a 2-year delay caused by local opposition and a voter referendum resulted in $521 million in additional costs (not including ~$100 million in legal fees) for a 1,200 MW project originally budgeted at ~$1 billion, increasing total costs by more than 50%. By comparison, robust upfront community benefits programs costing $50-100 million that prevent or substantially reduce such delays represent cost-effective investments. We recommend: (1) acknowledge tradeoffs transparently that excessive benefits could undermine viability; (2) focus on benefits serving project interests like port infrastructure and workforce training; (3) set reasonable expectations proportionate to project scale using international precedents; (4) include benefits in regulatory consideration recognizing social license value; and (5) monitor and evaluate across early projects to adjust frameworks based on evidence.
The CNSOER welcomes your suggestions and feedback on possible terms and conditions for the draft Submerged Land Licence.	-Royalty Structure Aligned with Project Economics- We recommend the majority of seabed fees be payable once projects are operational and generating revenue rather than during development when projects face highest financial risk. We propose that seabed fees during the operational phase of the windfarm leverage an innovative tiered royalty structure based on offtake destination: Tier 1 (lowest) for local Nova Scotia use, incentivizing local economic benefit; Tier 2 (mid-level) for export to other Canadian provinces, supporting broader Canadian energy goals; Tier 3 (standard) for international export, providing appropriate return for resource extraction serving external markets. That said, energy destined for export often carries the burden of additional costs for transmission infrastructure. We recommend establishing royalty thresholds with an eye to maintaining the competitiveness of Nova Scotia's offshore wind energy. This tiered structure would: (1) incentivize local benefit through lower royalties potentially translating to lower electricity costs for Nova Scotia ratepayers or helping to attract energy-intensive industries; (2) maintain export flexibility with appropriate return; (3) reflect different value propositions; and (4) enable market-driven optimization. Many oil and gas jurisdictions use tiered or sliding-scale royalties based on production volumes, prices, or characteristics, establishing precedent for royalty structures reflecting different economic circumstances and policy objectives.

	Whatever production levy structure is adopted should provide long-term predictability over 20-30 year financing periods with clear definition not subject to arbitrary changes.
The CNSOER welcomes your suggestions and feedback on considerations for a Participant Funding Program.	We commend CNSOER for offering participant funding demonstrating commitment to inclusive engagement. Many stakeholders face significant barriers to participating in complex regulatory processes due to technical complexity, resource constraints, time demands, and expertise gaps. We recommend expanding eligible expenses to include: (1) Technical analysis and subject matter experts for reviewing developer proposals and preparing technical submissions including marine biologists, offshore wind engineers, economists, and legal advisors; (2) Independent fisheries impact studies commissioned by fishing organizations ensuring credible data informs negotiations; (3) Community engagement facilitation for organizing meetings, developing surveys, and synthesizing input; (4) Translation and language services for Mi'kmaq and other languages ensuring culturally appropriate communication; (5) Legal and regulatory expertise on rights, licence terms, and community benefit agreements; and (6) Capacity building and training including site visits to operating facilities and workshops on negotiation. For program design, we recommend: (1) clearly define eligible recipients including Mi'kmaq communities, fishing associations, environmental organizations, municipalities, and community groups; (2) establish reasonable funding caps with streamlined application processes; (3) provide advance funding where possible rather than reimbursement-only; (4) require proportionate accountability focused on outcomes; and (5) provide transparency on funding recipients, amounts, purposes, and decision-making.
The CNSOER welcomes any additional feedback and comments.	-Prequalification- We have significant concerns about CNSOER's prequalification process that create risks of limiting competition and excluding developers who could successfully deliver projects. The financial thresholds of $400 million CAD in annual revenue/net assets OR $100 million in funds under management will exclude many specialized offshore wind developers who have successfully delivered projects globally but operate with leaner balance sheets focused on development rather than asset ownership. Early-stage offshore wind markets typically attract two developer categories: large utilities with substantial balance sheets but often limited offshore wind expertise, and specialized offshore wind development companies with deep technical expertise but smaller corporate financial profiles. The second category frequently takes early new-market risk, conducts predevelopment and stakeholder engagement, then partners with or sells to larger developers or infrastructure funds for construction. By setting financial thresholds appropriate for final project owners rather than developers, CNSOER may exclude precisely the entities most willing to take early-market risks. Results from this prequalification process will not necessarily indicate actual competitive interest in the market. The prequalification form allows joint applications where only one partner must pass financial criteria and one must pass technical criteria. However, if a technically-qualified developer's financial partner withdraws, there appears to be no mechanism to substitute a new financial partner without re-prequalifying. Given that partnerships frequently evolve between prequalification and final investment decision, particularly in new markets, this inflexibility could result in qualified projects failing to proceed due to partnership changes rather than lack of capability. The process also lacks clarity on when binding financial commitments must be demonstrated. Offshore wind projects progress through stages with

	different appropriate financial commitments at each stage. Requiring demonstration of full project financing at prequalification years before final investment decision does not reflect industry practice. We recommend: (1) Establish tiered financial qualification pathways recognizing different developer business models, including alternative pathways for development specialists with lower financial thresholds but demonstrated offshore wind track records and credible partnering plans, and allow qualification based on committed financial backing from creditworthy institutions even if the developer itself does not meet balance sheet thresholds. (2) Permit partner substitution for qualified entities - if a developer qualifies on technical criteria allow them to substitute financial partners meeting financial criteria without re-prequalifying subject to CNSOER approval, and vice versa. (3) Provide flexibility on timing of investment commitments by clarifying that prequalification demonstrates capability and intent rather than requiring binding financing, and establish milestone-based requirements where detailed commitments are required at appropriate project stages. (4) Limit developer concentration to encourage competition by restricting developers to maximum 1 submerged land licence per Wind Energy Area and maximum 2 total licences per developer across all Wind Energy Areas in each leasing round, preventing market concentration and ensuring broader participation. -Evidence of offtake strategy- CNSOER should include offtake certainty and delivery timeline as significant evaluation factors. We recommend requesting information on offtake strategies, valuing earlier delivery with scoring credit balanced against technical feasibility, considering offtake destination benefits, and focusing on credible strategies rather than penalizing developers for lacking full agreements when market structures don't yet exist. -Coordination with transmission planning- Ongoing transmission planning and regional coordination should inform all offshore wind activities. The Acadia Center’s August 2025 roadmap documents fragmented planning limiting coordination and proposes joint agreements, noting Nova Scotia's 62 GW offshore wind potential requiring $40 billion generation and $20 billion transmission investment. The NEMOEC Coalition May 2023 white paper demonstrates up to $780 million USD annual benefits from a 2,000 MW HVDC subsea corridor linking Nova Scotia with New England through shared offshore backbone. Nine U.S. states issued June 2025 RFI on interregional transmission. The New England Governors – Eastern Canadian Premiers reconvened NICE in 2024 with working groups on transmission and offshore wind supply chain. Shared transmission could dramatically reduce costs compared to separate radial connections, export markets require coordinated cross-jurisdictional transmission, and domestic use requires substantial upgrades to integrate 3,000-5,000 MW. We recommend CNSOER: (1) actively participate in NICE working groups and monitor Northeast States Collaborative initiatives; (2) consider transmission coordination in parcel design identifying shared corridors and avoiding redundant infrastructure; (3) include transmission planning in bid evaluation requesting strategies and valuing coordination approaches; (4) support transmission studies coordinating with owners and regional planning initiatives; (5) influence federal and provincial transmission policy advocating for cost-sharing and regulatory reforms; and (6) ensure future Calls for Bids reflect transmission planning progress.

Name	Peter West
Organization	Offshore Wind and Power Systems of Texas Inc.
Respondent Type	Industry
The CNSOER welcomes your suggestions and feedback on the government identified Wind Energy Areas (Sydney Bight, Middle Bank, and French Bank) and the factors the CNSOER will use to design parcels within those Wind Energy Areas.	The wind energy areas of Sydney Bight, Middle Bank, and French Bank would be considered ideal for our OWPST TITAN (jack-up wind turbine platforms) due to a combination of favourable water depths and suitable geological conditions. Jack-up rigs and fixed-bottom foundations are generally used in water depths up to 60-70 meters. OWPST technology incorporated in its TITAN platform allows it to be placed in the deeper water range of 100 meters. Middle Bank and parts of Sydney Bight feature depths primarily within the 60 to 100 meter range, with substantial acreage in shallower water, making both fixed-bottom foundations as well as our OWPST TITAN viable options. French Bank has depths greater than 70 meters, allowing floating solutions as well as once again our TITAN technology to be optimum at these depths. The areas possess geological conditions that can support the weight and stability requirements of fixed-bottom structures. The presence of a firm seabed (such as the sandbanks found at Middle Bank) is ideal for the legs of a jack-up platform although once again the technology of the TITAN platform is such that rough or rocky sea bed conditions do not limit or hamper its operation. Nova Scotia's offshore region, including these specific areas, boasts a world-class wind resource with strong, steady wind speeds (9 to 11 km/h), which is a fundamental requirement for efficient energy generation. Sydney Bight is relatively close to shore, existing grid infrastructure, and port facilities in northeastern Cape Breton, reducing the cost and complexity of construction, operation, and maintenance. French Bank and Middle Bank are also close enough to existing or decommissioned energy corridors (like pipelines) that could be leveraged for transmission infrastructure, minimizing the need for entirely new corridors.
The CNSOER welcomes your suggestions and feedback on bid submission criteria to be used as part of the Call for Bids process, including specific criteria, criteria weighting, scoring metrics, and evaluation methods.	Technical Merit, Experience/Past Performance, and Compliance are all criteria that need to be the basis of any bid process. Unique features or efficiencies offered along with past projects, their outcomes and references combined with proof of financial health are the foundation of successful bids developing into projects that positive growth to the community.
The CNSOER welcomes your suggestions and feedback on coexistence.	Programs that flourish with coexistence in the emerging offshore wind sector involve collaborative planning, scientific research, and innovative technology which support multiple uses of marine space and mitigate conflicts with traditional ocean users like the fishing industry, shipping, and conservation efforts.
The CNSOER welcomes your suggestions and	For Canadian offshore wind projects, fisheries compensation requires fair, transparent processes addressing lost income, access, and gear damage. The focus should be on early engagement, standardized data/methodologies for loss

feedback on behalf of governments on considerations for fisheries' compensation.	calculation, equitable claim handling, monitoring (pre/post-construction), and potentially funds for long-term hardship. These should all help to balance the development with the fishing industry's vital economic and cultural role. Key considerations should also involve defining eligible impacts on possible habitat loss or displacement and establishing clear, consistent claim processes, and ensuring developers fund robust monitoring and research for coexistence
The CNSOER welcomes your suggestions and feedback on the fees for bid submissions and successful bidders.	A CAD $ 250,000.00 non-refundable fee paid by all bidders is a “gamble” that most businesses will not be willing to make as it is an unwise decision that does not warrant the gamble. If the non-refundable portion of this $ 250,000.00 fee was reduced to $25,000.00 or 10 percent of the initial fee I suspect that the program will be both better received and more widely participated. Then, the additional fee of CAD $ 975,000.00 paid by all successful bidders upon issuance of a submerged land licence is a legitimate cost of doing business.
The CNSOER welcomes your suggestions and feedback on considerations and adherence to the principles listed in the Accord Acts.	The strategic direction is a formal mechanism through which the federal and provincial governments jointly guide the regulator's actions. The regulator should be empowered to act on specific matters only after receiving this direction from the ministers. These processes must be very distinct. The independent regulator's activities must be transparent and accountable to the policy goals set by the elected governments.
The CNSOER welcomes your suggestions and feedback on possible considerations for community benefits programs related to offshore wind development.	The favourable economic impact for local Gulf communities cannot be stressed highly enough. One project represents hundreds of local jobs for nearly two years, and almost as many local jobs perpetually thereafter. The local economic improvement of the OWPST water desalination and green hydrogen project cannot be overstated. The project cannot be realized without depending on local labour and local domain expertise. For the first eighteen months of the project, OWPST will employ local laborers in the trade skills along with managers, logistics staff, and safety and security personnel. Additionally, the project will employ people to provide yard support covering two shifts. In addition, local business will benefit from OWPST’s need to purchase a broad range of product and services.
The CNSOER welcomes your suggestions and feedback on possible terms and conditions for the draft Submerged Land Licence.	There is nothing that has notable mention of effects on the environment in general and specifically related to the seabed floor. OWPST’s technology and processes have particular minimal to no effects on the seabed floor from the installation of our TITAN platforms through all phases of operations and post operations with removal or dismantlement. The protection of the environment is crucial to the acceptance of industry by both government and the public at large. Industry is charged with maintaining the environment as close to its natural state as possible.
The CNSOER welcomes your suggestions and feedback on considerations for a Participant Funding Program.	For its limits and intended use, we do not see any areas of concern that are not already covered under the program as set out. Participant funding programs by design are set to equal the playing field and we believe that it has been accomplished with this program.
The CNSOER welcomes any additional	With all of the challenges that are present in the offshore wind industry, there are a lot of opportunities that create an environment for growth. The primary opportunity is the development of clear and stable policies that create predictability for developers. These policies must include a streamlined permitting process as

feedback and comments.	well as a long term purchase agreement. Through their offshore holdings, countries can create efficient offshore wind energy which should drive down costs and accelerate development

Name	Requested to be kept confidential
Organization	Requested to be kept confidential
Respondent Type	Industry
The CNSOER welcomes your suggestions and feedback on the government identified Wind Energy Areas (Sydney Bight, Middle Bank, and French Bank) and the factors the CNSOER will use to design parcels within those Wind Energy Areas.	Back in March, the CNSOER announced the 5 prospective areas, and suggested that the Sydney Bight area would come within 10km of shore. This would have given developers ample space to outline a project zone that meets economically feasible depth limits for traditional monopile installations, or possible jacket installations. With the newer, final area of Sydney Bight with the 25km setback, there are marginal areas within the 50-60m depth range, and it goes deeper from there. I understand the concerns with viewpoints and fishing areas that the Province has, however I think there should be consideration given to the fact that the offshore wind industry globally is retreating to projects with a much lower risk profile. Being the first round of projects in Canada, the risk profile is already quite high for many established global developers. Pushing this WEA into deeper depths where even jackets are stretched will likely push these project's risk profile into areas that could scare away the kind of established, experienced global developers that I am sure the Province is trying to attract. I do not think that floating offshore wind can be considered commercially viable at this point in time, as we are seeing project cancellations or pauses throughout the world on commercial-scale floating projects. The only projects that are still going ahead with floating are essentially demo-scale projects. I would encourage the CNSOER to reconsider the 10km setback which would allow more areas in the sub 55m depth zone, which is traditionally jacket territory. If there can be depths reached closer to shore that would make monopile installations viable, then I would strongly suggest including these areas as well. This will allow the investments to flow in from developers much more easily, as the risk profile of the overall project will drop substantially. As a Canadian who has supported the buildout of offshore wind globally for the past 4 years for the 2 largest offshore wind companies, I am wishing that the industry goes forward with great momentum in Canada, and I think that these changes would be the best path forward.
The CNSOER welcomes your suggestions and feedback on bid submission criteria to be used as part of the Call for Bids process, including specific criteria, criteria weighting, scoring metrics, and evaluation methods.	I believe that it should be communicated at the pre-qualification stage if there are technology restrictions that offshore wind developers can and cannot use. Specifically, there will be developers interested in using Chinese turbines instead of SGRE, Vestas, or GE, as the cost is substantially less.

The CNSOER welcomes your suggestions and feedback on coexistence.	Fishing within floating offshore wind farms should be restricted due to mooring lines and dynamic array cables. Within fixed bottom areas, developers can be asked to arrange the wind farm into channels that allow vertical paths within the wind farm which allow easily navigable areas for the fisherman, while still allowing healty setbacks atop of the buried array cables to protect the critical infrastructure from accidental damage.
The CNSOER welcomes your suggestions and feedback on behalf of governments on considerations for fisheries' compensation.	This should be benchmarked based off other fishing industries compensations used globally, and consideration should be given to % of lost fishing ground due to the wind farm areas, especially for floating wind. If that area accounts for x% of fishing revenues, then compensations should be based off this. Neutral third parties can help manage these discussions.
The CNSOER welcomes your suggestions and feedback on the fees for bid submissions and successful bidders.	Will there be maintenance fees for offshore wind lease holders after this one-time payment is complete? This should be communicated at this stage to bidders as the time between bid award and start of construction can be upwards of 10 years, possibly more for economically viable floating wind.
The CNSOER welcomes your suggestions and feedback on considerations and adherence to the principles listed in the Accord Acts.	Overly restrictive local content requirements hurt overall industry project viability. Not every state and province needs a cable factory, staging port, etc. Agreements should be made with Newfoundland and Labrador or other maritime states to agree that sharing the benefits from local content will be sufficient. The cost of setting up factories instead of shipping them from established factories overseas will ultimately reflect itself in the overall cost of the project, and therefore the final price of electricity that will be fed on to ratepayers.
The CNSOER welcomes your suggestions and feedback on possible considerations for community benefits programs related to offshore wind development.	I strongly believe that local labour should be used as much as possible. In the united states, agreements were made to use union workers, and I think that it helped the industry cement itself into these communities that otherwise may be not favourable to the build out of offshore wind energy. These are well paid jobs that guarantee good benefits and workers rights. I also think that developers should be encouraged to develop training programs with local community colleges, and subsidize the tuiotion for future technicians/offshore wind professionals. There should be hiring agreements with graduates of the programs for projects that succesfully reach operations.
The CNSOER welcomes any additional feedback and comments.	Developers really need clarity with offtake. As I mentioned above, the lower the risk profile, the more investable a project is. Global developers will rush to a market if there is a clear route to market for the electricity with an established and develop price profile on the PPA, which I worry there is not currently for this call for bids. If there are multiple projects to be planned within a single Wind Energy Area, consideration should be given to include a central collector station to prevent each wind farm from being required to have their own individual offshore substation. This central collector station can be an 'energy island' or something similar. For the south shore WEAs, there could even be consideration to sending HVDC to the United States in an efficient, coordinated manner. This collector station could be owned and managed by Nova Scotia Power, or another non-offshore wind developer party. With the cancellation of so many offshore wind projects in the United States due to the recent administration, the North-East is desperate for

	power, and Nova Scotia could easily supply much of it through this type of setup with their offshore wind energy. See TenneT in Germany for examples of offshore collectors being used in such manner, and the Energy Island concept (or Bornholm, which is a 'trial-run' of this idea). However, if this idea is to be used it must be communicated to developers at the earliest stage so that wind farm designs can be planned around it, as the overall cost profile of the project will change dramatically as they are to only be responsible for Turbines and Arrays, and an offshore substation should they choose.

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Organization	Requested to be kept confidential
Respondent Type	Industry
The CNSOER welcomes your suggestions and feedback on the government identified Wind Energy Areas (Sydney Bight, Middle Bank, and French Bank) and the factors the CNSOER will use to design parcels within those Wind Energy Areas.	The Applicant supports the Strategic Direction's proposed approach and agree with the factors identified for defining Wind Energy Areas and designing parcels. These factors are appropriate and consistent with international best practices for offshore wind development. We recommend that parcels be sufficiently large, as experience shows that significant portions of a lease area may later be excluded following detailed geophysical, geotechnical, environmental, and engineering surveys due to seabed conditions, technical constraints, or competing uses. Larger initial parcels help preserve project viability after these exclusions. Wind resource quality should remain a primary consideration, as higher wind speeds and lower turbulence directly support improved energy yield and lower levelized cost of electricity for end users. Water depth is also a critical parameter, as it directly influences the choice between fixed-bottom and floating foundation technologies. While the Strategic Direction appropriately prioritizes areas technically suitable for fixed-bottom offshore wind development in Sydney Bight, water depths exceeding approximately 55-60 metres often challenge the economic viability of fixed-bottom solutions unless wind conditions, seabed characteristics, and local supply chain maturity are exceptional. Given the uncertainty on seabed conditions until on-site surveys are conducted and current state of local supply chain development, this consideration is particularly relevant. In this context, we recommend that the parcel configuration for Sydney Bight be slightly revisited, as modest adjustments to the layout could materially reduce average water depths . If extended by 2,5 km closer to shore, over 300 MW of additional fixed-bottom capacity could be considered. Such refinements could have a significant positive impact on foundation feasibility and, ultimately, on reducing the cost of electricity for Canadian consumers. Proximity to electricity demand centres and coordination with transmission planning, including both industrial and residential load nodes, is also important to reduce transmission costs, grid losses, and overall system integration complexity. It is crucial that the development of new transmission infrastructure matches the offshore wind project timeline to avoid commissioning delays. Finally, we suggest that a minimum feasibility screening of geotechnical conditions be applied early in the parcel design process to avoid allocating areas with clearly prohibitive seabed characteristics that could prevent viable foundation installation. Finally, we emphasize that early and ongoing stakeholder engagement and validation are critical to the successful design of Wind Energy Areas and parcels.

	This should include meaningful engagement with Indigenous Peoples, fishing interests, coastal communities, other marine users, as well as relevant environmental authorities and conservation organizations, to identify ecological sensitivities, reduce potential conflicts, and support responsible and socially acceptable offshore wind development.
The CNSOER welcomes your suggestions and feedback on bid submission criteria to be used as part of the Call for Bids process, including specific criteria, criteria weighting, scoring metrics, and evaluation methods.	We generally agree with the proposed approach to bid submission criteria and their use within the Call for Bids process. A clear, transparent, and well-weighted set of criteria is essential to ensure that the process selects proponents that are capable of delivering complex offshore wind projects in a timely, safe, and responsible manner, while maximising long-term benefits for Nova Scotia. In this context, we recommend that the criteria framework place clear and material emphasis on demonstrable, offshore wind–specific experience as a core indicator of delivery confidence, whether applied as a qualification requirement, a scored criterion, or a combination of both. Offshore Wind Technical Expertise and Delivery Capacity Offshore wind is a highly specialised industry with technical, logistical, financial, and regulatory challenges that differ materially from those encountered in onshore renewables or other offshore infrastructure sectors. These include complex marine construction, harsh metocean conditions, long supply chains, specialised vessels, grid integration at scale, and stringent health, safety, and environmental requirements. Experience gained through the full lifecycle of offshore wind projects (development, consenting, financing, construction, commissioning, and operations) significantly reduces delivery risk and increases the likelihood of projects being delivered on time and on budget. Bid criteria that meaningfully value such experience help ensure that awarded projects are realistic, bankable, and deliverable. International experience demonstrates the value of prioritising offshore wind-specific expertise in competitive seabed and permit allocation processes. In Europe, multiple jurisdictions have embedded offshore wind track record as a central consideration, either through pre-qualification gates, scored capability criteria, or both. The ScotWind leasing round is one example, where delivery capability and organisational competence were assessed alongside broader policy objectives, helping balance ambition with credibility and execution realism. Similarly, offshore wind leasing rounds run by The Crown Estate in England, Wales, and Northern Ireland have used robust pre-qualification stages to test bidders' technical capability and relevant offshore wind experience before allowing access to seabed rights. These processes explicitly seek evidence of experience in offshore wind development, consenting management, construction planning, and project delivery, ensuring that only bidders with proven capability can progress. Other European models reinforce the same principle. In the Netherlands, certain offshore wind tenders apply a "comparative test" in which qualitative criteria such as knowledge and experience are scored, with higher rankings awarded to bidders that can demonstrate deeper and more relevant offshore wind track records. Denmark and Ireland likewise require bidders to evidence technical and organisational capacity, including offshore wind or closely comparable marine energy experience, as a condition of participation in offshore wind tenders. Across these jurisdictions, the consistent lesson is that offshore wind–specific experience is treated as a prerequisite for credibility and delivery confidence, not merely an optional differentiator.

	Applying similar principles in Nova Scotia would support the development of a robust offshore wind sector founded on experience, risk awareness, and operational excellence, while still allowing CNSOER flexibility in how criteria are structured and weighted. Balancing Local Content with Competitive Pricing An effective local content and workforce development framework should be grounded in Nova Scotia's inherent strengths and informed by proven international practice. The ScotWind process provides a useful precedent, as it required supply chain development statements from all applicants but deliberately excluded them from the competitive scoring for seabed awards, instead converting these commitments into binding contractual obligations once option agreements were executed. This structure avoided a "race to the top" of unrealistic promises, ensured commitments were credible and deliverable, and focused competition on capability and execution. Building on this approach, we recommend identifying Nova Scotia's competitive advantages in ports, marine expertise, shipbuilding and fabrication, and research and education infrastructure; prioritizing multi-value investments such as port upgrades that benefit offshore wind and the broader marine economy; avoiding local content requirements where competitive supply does not exist (e.g., turbine manufacturing or specialized vessels); setting realistic and flexible targets; and drawing on European experience, which has evolved toward emphasizing operations and maintenance bases and workforce training rather than broad manufacturing mandates. Social and Stakeholders Engagement In addition to technical and financial capability, we strongly support the inclusion of criteria that assess a bidder's ability to work constructively with stakeholders and to build durable public support. Offshore wind projects interact with a wide range of interests, including coastal communities, Indigenous groups, fisheries, regulators, ports, and local supply chains. Demonstrated experience in meaningful engagement, transparent communication, and long-term partnership building is critical to securing social licence and reducing the risk of delays or conflict. Bidders that can evidence successful stakeholder engagement in other jurisdictions should be recognised and rewarded within the evaluation framework.
The CNSOER welcomes your suggestions and feedback on coexistence.	We strongly agree that coexistence between the emerging offshore wind sector and existing and future ocean users in the Canada–Nova Scotia offshore should be a priority throughout the land tenure process and the full project lifecycle. Coexistence should be approached as a practical, evidence-based objective, grounded in safety, environmental protection, and long-term ocean stewardship, rather than as an abstract or purely aspirational concept. Experience from mature offshore wind markets demonstrates that well-designed offshore wind projects can deliver positive outcomes for marine biodiversity, with indirect benefits to several ocean users. Foundations, scour protection, and exclusion zones around turbines can act as artificial reef structures, increasing habitat complexity and local biodiversity. In some regions, reduced seabed disturbance and limitations on certain extractive activities within wind farm areas have contributed to localized ecological recovery, with potential benefits for fisheries sustainability over time. While biodiversity is not itself an "ocean user," these positive environmental effects can support broader ecosystem services that underpin multiple marine activities. At the same time, it is important to apply a realistic and safety-driven lens to coexistence with certain ocean uses. In particular, full physical coexistence with maritime transport, aviation, and high-intensity tourism activities is often limited in

	practice due to navigational safety, operational risk, and regulatory constraints. Offshore wind farms are designed as industrial energy assets, and clear spatial planning, safety buffers, and exclusion or routing measures are essential to minimise collision risk and ensure the safety of vessels, crews, and the public. Attempting to force shared use in areas where risks cannot be acceptably managed may undermine both safety and public confidence . Effective coexistence therefore relies less on universal co-location and more on early spatial planning, transparent engagement, and tailored mitigation measures. This includes early dialogue with fisheries, shipping interests, ports, Indigenous groups, and regulators; adaptive project design informed by baseline data; and the use of monitoring and adaptive management throughout the project lifecycle. Where coexistence is not feasible, fair and predictable avoidance, mitigation, or compensation mechanisms should be considered as part of a balanced approach. In this context, we encourage CNSOER to frame coexistence as a structured, risk-based process embedded within marine spatial planning and project assessment, rather than as an expectation that all ocean uses can or should physically coexist within offshore wind areas. Such an approach reflects international best practice, supports safety and environmental integrity, and creates the conditions for offshore wind to develop alongside other ocean uses in a durable and socially acceptable manner.
The CNSOER welcomes your suggestions and feedback on behalf of governments on considerations for fisheries' compensation.	We support the recognition by governments and CNSOER that offshore wind development may result in impacts to existing ocean users, including the commercial fishing and seafood sectors, and that fisheries' compensation is therefore an important component of a responsible offshore wind framework. In this context, we strongly recommend that fisheries' compensation be delivered through a government-administered scheme or an independent third-party mechanism, rather than through direct compensation arrangements between offshore wind developers and fishing interests. International experience demonstrates that centrally administered or independent compensation frameworks provide greater transparency, consistency, and fairness than bilateral, project-by-project negotiations. Direct compensation arrangements can create unequal outcomes, power imbalances, and prolonged negotiations, while increasing uncertainty for both developers and fishing interests. By contrast, government or independently governed schemes allow for standardized eligibility criteria, valuation methodologies, and oversight, and are more resilient as offshore wind deployment scales. Several offshore wind jurisdictions have adopted this approach. In the United Kingdom, fisheries compensation has increasingly been structured through regulator-supported and independently governed frameworks, funded by industry but separated from individual developers. Denmark and Germany embed fisheries compensation within national permitting and regulatory systems, while the Netherlands applies centrally defined compensation principles, particularly where displacement or cumulative impacts occur. These models have reduced disputes, improved predictability, and supported long-term coexistence between offshore wind and fisheries. A comparable governance principle can also be observed in North America through bodies such as the Gulf of Maine Council on the Marine Environment. While not a compensation authority, the Council provides a strong precedent for addressing fisheries and ocean-use interactions through government-led, independent, science-based frameworks, rather than bilateral arrangements between private actors. Its role in coordinating fisheries sustainability, marine environmental protection, and multi-use ocean planning across jurisdictions illustrates the value of separating impact assessment and management from

	individual commercial interests—an approach directly relevant to fisheries compensation for offshore wind. Based on international practice, a fisheries' compensation scheme should apply clear and objective eligibility criteria, including: demonstrable historical fishing activity in affected areas (e.g. logbooks, VMS/AIS, landings data); a clear linkage between offshore wind activities and material impacts; proportionality to avoid minor or speculative claims; inclusivity across fleet segments where activity can be evidenced; and recognition of cumulative impacts from multiple offshore developments. Valuation methodologies should be standardised, transparent, and evidence-based, typically linking compensation to demonstrable income loss or increased operational costs using historical data. Different approaches should apply to temporary construction impacts versus long-term or permanent displacement, with safeguards to avoid double compensation. International best practice also supports periodic review of valuation assumptions and the use of independent assessment and dispute-resolution mechanisms. Separating compensation from direct developer–fisheries financial relationships helps preserve trust and long-term coexistence. Developers remain responsible for avoiding, minimising, and mitigating impacts through project design and engagement, while compensation decisions are made through a neutral, transparent process. We therefore recommend that CNSOER and governments advance a fisheries' compensation framework that is centrally or independently administered, consistently applied, and aligned with international offshore wind and marine governance best practice.
The CNSOER welcomes your suggestions and feedback on the fees for bid submissions and successful bidders.	We provide the following feedback on the proposed bid submission and license issuance fees, with the objective of ensuring that the Call for Bids framework promotes credible participation, effective competition, and timely offshore wind development. While we recognise the importance of ensuring that participants in the Call for Bids process are serious, credible, and capable of delivering offshore wind projects, we recommend that the proposed non-refundable bid submission fee be reconsidered in favour of a guarantee-based or refundable deposit structure, particularly given the early-stage and emerging nature of the offshore wind market in Nova Scotia. Offshore wind development differs fundamentally from offshore oil and gas. In offshore wind—especially in emerging markets—early-stage development is often undertaken by smaller, highly specialised developers that assume significant upfront risk to identify sites, undertake early environmental and technical studies, initiate stakeholder engagement, and de-risk projects to a level that later attracts utilities, infrastructure funds, and institutional investors. A high, non-refundable fee at the bid stage risks creating a material barrier to entry for these early-stage developers, reducing competition and potentially excluding some of the most capable and innovative market participants. International offshore wind leasing best practice demonstrates that bidder seriousness is more effectively ensured through financial guarantees, staged payments, and milestone enforcement, rather than upfront sunk costs. Leading seabed managers such as The Crown Estate and Crown Estate Scotland do not require large non-refundable bid submission fees. Instead, they rely on robust pre-qualification processes, post-award option or rental payments, and clearly defined delivery milestones, with termination rights or forfeiture mechanisms where progress is not demonstrated. This guarantee-based approach is not unique to the United Kingdom; similar models relying on bid bonds, bank guarantees, and milestone enforcement—rather than large non-refundable bid fees—are also

	applied in offshore wind allocation processes in the Netherlands, Denmark, and Germany, reinforcing this as established international best practice. A guarantee-based structure—such as a bid bond, parent company guarantee, or refundable cash deposit—would achieve the same policy objective of filtering out non-serious bidders, without destroying early-stage development capital. This is particularly important as many large institutional investors and strategic offshore wind players do not commit capital prior to seabed award, preferring phased investment aligned with risk reduction. A non-refundable fee model may therefore unintentionally deter both early-stage developers and later-stage capital from participating. To address concerns around speculation, a guarantee-based approach should be paired with clear, enforceable development milestones embedded in the land tenure process, as is common in international offshore wind regimes. In other jurisdictions, these milestones typically include time-bound requirements for site investigations and surveys, submission of environmental impact assessments, progression of permitting and grid connection applications, and evidence of continued financial and organizational capability. Failure to meet these milestones within defined timeframes can result in escalation measures, including drawdown of financial guarantees, reduction of site rights, or termination of the license or option agreement. This performance-based model, used in markets such as the UK, Denmark, Germany, and the Netherlands, ensures seriousness through demonstrated delivery and progress, rather than participation alone.
The CNSOER welcomes your suggestions and feedback on considerations and adherence to the principles listed in the Accord Acts.	We support the inclusion of equity and participation objectives within the legislative framework and emphasize the importance of practical implementation. This can be achieved by providing clear direction on how such principles will be assessed in bid evaluations, clearly defining under-represented groups, and offering adequate resources through participant funding and technical assistance. Commitments should be enforceable through licence conditions with ongoing reporting to ensure accountability, and the framework should draw on proven approaches such as Indigenous procurement programs and supplier diversity initiatives in Canada. In relation to fishing activities, we recommend requiring comprehensive fishing impact assessments within bid submissions that demonstrate meaningful engagement with fishing interests, quantify potential effects, and identify concrete mitigation measures, alongside including fishing community representation in evaluation processes to strengthen trust and project resilience.
The CNSOER welcomes your suggestions and feedback on possible considerations for community benefits programs related to offshore wind development.	A robust and well-designed community benefits framework is essential to the successful development of offshore wind in Nova Scotia, and the Province should play an active role in shaping and coordinating this framework. Offshore wind projects are long-term assets with multi-decade interactions with coastal and rural communities, and a provincial role helps ensure that community benefits are consistent, transparent, and equitably distributed, rather than unevenly negotiated on a project-by-project basis. Nova Scotia already has relevant experience to build upon from onshore renewable energy projects, where community benefit agreements, local funds, and workforce development commitments are well established. Onshore wind projects in the province have supported community benefit funds, training and apprenticeship programs, and partnerships with local institutions such as Nova Scotia Community College. These existing models provide a strong foundation that can be adapted and scaled for offshore wind, recognising the larger project size, longer timelines, and more complex marine interfaces involved. International offshore wind experience further demonstrates how community benefits can be embedded in practical, locally relevant ways. In several European markets, offshore wind developers have successfully integrated local fishing

	vessels and crews into operations and maintenance (O&M) activities, such as crew transfer, guard vessel duties, environmental monitoring support, and logistics. This approach has helped retain economic activity in coastal communities, provided alternative or supplementary income streams for fishers, and improved mutual understanding between sectors. While not universally applicable, these examples show that coexistence and community benefit can be achieved through pragmatic operational integration, rather than purely financial compensation. Given Nova Scotia's particularities—strong coastal identities, a skilled fisheries workforce, strategic ports, and an energy transition underway—the community benefits framework should prioritise durable, place-based benefits, including: • Workforce development and transition pathways, including funded training places, apprenticeships, and marine safety and technical upskilling for offshore wind, building on existing provincial programs and institutions. • Local and regional supply chain participation, especially in ports, marine services, fabrication, logistics, and O&M, with realistic requirements aligned to market maturity. • Community benefit funds with clear governance structures, transparent allocation criteria, and long-term funding horizons, building on precedents from onshore renewables. • Meaningful Indigenous participation, including opportunities for economic participation, capacity building, and long-term partnership, aligned with provincial and federal reconciliation objectives. • Operational synergies with existing ocean users, where safe and appropriate, such as the use of local vessels and services during construction and O&M, informed by international best practice. Finally, we recommend that CNSOER and governments define core principles for community benefits programs, including additionality (benefits are incremental to existing obligations), transparency and reporting, consistency across projects, and longevity over the full project lifecycle. Embedding these principles within licence conditions and monitoring requirements would provide clarity to developers, certainty to communities, and confidence that offshore wind development delivers lasting, shared value for Nova Scotia. Research from the Northeast Grid Planning Forum describes a spectrum of community benefit models ranging from limited to more substantive levels of participation. These include in-kind benefits such as facilities or services with minimal community control; community benefit funds that provide financial resources for locally determined priorities with some discretion over allocation; direct ratepayer benefits such as bill credits or reduced rates, which can be particularly meaningful for low-income households but require coordination with utilities; and ownership participation, which offers the highest level of long-term value, governance influence, and revenue sharing, while also demanding greater capital and institutional capacity. This spectrum is not static, and communities may move toward more advanced models as their experience and resources grow. Accordingly, we recommend allowing flexibility to match benefit approaches to local circumstances, providing tiered support with greater assistance for more complex arrangements, establishing enabling tools for ownership participation such as financing mechanisms, federal partnerships, and standardized legal structures, and piloting innovative models in select projects to support learning and adaptation.
The CNSOER welcomes your	We generally agree with the inclusion of clear terms and conditions in the draft Submerged Land Licence (SLL), including provisions related to licence duration,

suggestions and feedback on possible terms and conditions for the draft Submerged Land Licence.	milestones, coexistence, monitoring, and community benefits. Our principal feedback relates to the timing and structure of seabed lease payments, as this has a material impact on project bankability and early-stage market participation, particularly in an emerging offshore wind jurisdiction such as Nova Scotia. Seabed lease payment start date We recommend that seabed rental payments should not commence earlier than the start of construction, rather than during the early development and consenting phase. The pre-construction period in offshore wind is characterised by high uncertainty, long timelines, and substantial upfront expenditure on surveys, environmental studies, permitting, and stakeholder engagement, with no guarantee that a project will ultimately reach construction. Introducing fixed annual seabed rent during this phase adds financial burden at the point of highest risk, without materially improving delivery outcomes. This approach is consistent with practice in several early or emerging offshore wind markets, where governments have deliberately avoided seabed lease costs during development to encourage entry and project maturation. For example, in Italy, offshore wind projects are not subject to seabed lease payments during the development and permitting phase, reflecting a policy choice to prioritise de-risking and market formation over early revenue collection. Similar logic has been applied in other nascent markets, where cost recovery and public value capture are deferred until construction or operation, when project viability is clearer. By contrast, in more mature markets, early-stage seabed payments are typically paired with very strong permitting certainty or government-led site preparation. Where that is not the case, deferring rent until construction has proven to be a more effective way to attract capable developers while still safeguarding the public interest. Comparison with other jurisdictions The proposed annual rental of CAD 1,500/km²/year prior to electricity production should therefore be considered carefully in light of international practice: • In the United States, seabed rent is payable post-lease award, but the government-led site preparation and permitting framework significantly reduces early-stage risk relative to emerging markets. • In the United Kingdom, payment structures vary, but are typically linked to option agreements, milestones, or capacity-based payments rather than fixed early development rent, with strong termination rights if progress is not made. • In Australia, offshore wind regimes rely primarily on application fees and regulatory levies, rather than simple per-km² seabed rent during early development. Taken together, these examples support the view that early-stage seabed rent is not a prerequisite for preventing speculation, provided robust milestones and termination rights are in place. Royalties once electricity is generated With respect to levies or royalties payable once electricity production begins, we support the principle of public value capture at the operational stage. We recommend, however, considering a differentiated royalty structure, with lower rates for electricity sold locally (e.g. within Nova Scotia or Atlantic Canada) and higher rates for electricity exported to other jurisdictions. This would better align

	the fiscal regime with policy objectives around affordability, decarbonisation, and local economic benefit, while still ensuring an appropriate return to the public once projects are operational. In summary, we recommend that the SLL adopt a staged seabed payment approach, with no rental payments prior to the start of construction, strong milestone enforcement during development to deter speculation, and a royalty framework that explicitly incentivises local electricity supply. This structure would align Nova Scotia with international best practice for early offshore wind markets and support the development of a competitive, deliverable project pipeline.
The CNSOER welcomes your suggestions and feedback on considerations for a Participant Funding Program.	We commend CNSOER for providing participant funding to support inclusive engagement in complex regulatory processes that can otherwise exclude stakeholders due to technical, financial, and capacity barriers. To enhance its effectiveness, we recommend expanding eligible expenses to include technical, legal, fisheries, community engagement, translation, and capacity-building support, and designing the program with clearly defined eligible recipients, streamlined applications, reasonable funding caps, advance funding where possible, proportionate accountability, and transparent reporting on funding decisions.
The CNSOER welcomes any additional feedback and comments.	Pre-Qualification Consortia Finally, we recommend that the Call for Bids allows for flexibility within pre-qualified consortia. Specifically, a pre-qualified consortium should be permitted to replace one of its members if that member withdraws, provided that the replacement entity demonstrably meets the same relevant criteria as the departing member, even if the replacement was not part of the original pre-qualification process. This approach would avoid the need to create a new consortium while maintaining the integrity of the qualification standards. Given the long development timelines inherent to offshore wind and the potential for corporate or strategic changes during 2026, such flexibility would enhance resilience without compromising fairness or rigor in the process. Given the limited timeframe for partnership formation and for substantiating multiple qualification requirements, we recommend allowing bidders to prequalify at this stage on the basis of a single core criterion, such as technical capability. Pre-Qualification Financial Criteria We recognize the rationale for financial screening—to deter speculation, ensure credible delivery, and reduce the risk of seabed rights being awarded to proponents that cannot progress projects. However, we believe the current financial pre-qualification thresholds are not well calibrated to the offshore wind development model, particularly at the seabed allocation stage in an emerging market. Offshore oil and gas, and offshore wind differ materially in the nature and timing of capital at risk. In oil and gas, early-stage lease execution can quickly translate into very high-cost exploration and appraisal activity (including drilling), where the capital required and the downside exposure are substantial and immediate. That dynamic historically supports screening regimes that favour very large balance sheets at the earliest lease stage. By contrast, offshore wind development typically begins as a high-risk, lower absolute capital phase, where value is created by de-risking rather than by deploying large construction capital. Early work is centred on site definition, stakeholder and Indigenous engagement, environmental baseline and permitting strategy, grid and interconnection development, concept selection, and execution planning. In practice, these early-stage risks are often assumed by specialised

	developers that are structurally set up to run lean, high-uncertainty development programs and advance projects to “ready-to-construct” (or near-FID) before divesting to larger utilities, infrastructure funds, or strategic sponsors that can bring the larger equity and project financing required for construction. This is a well-established market pattern. For example, Hornsea was originally developed by SMart Wind (a Mainstream Renewable Power / Siemens Project Ventures JV) and later acquired by DONG Energy (now Ørsted). Similarly, Mainstream Renewable Power sold the 450 MW Neart na Gaoithe (NnG) project “construction-ready” to EDF Renewables in 2018. In the United States, during early stages of the market, large offshore wind players have also scaled their positions through acquisitions and lease assignments rather than solely by being the original auction winners for early federal leases (for example, RES was the auction winner for certain early lease areas, with DONG/Ørsted later taking over/being assigned interests). In this context, strict standalone balance-sheet thresholds at the seabed allocation stage risk creating an unintended barrier to entry for the category of participant that is most willing and best suited to assume early-stage development risk, particularly in new markets with limited precedent. The likely outcome is reduced competition, fewer credible bids, and potentially slower project maturation if only large balance sheets participate but delay meaningful risk capital deployment until later stages. We therefore recommend that CNSOER consider financial qualification mechanisms that are more closely linked to the obligations and risk profile of the seabed-stage work program, for example: • Bid bonds / refundable deposits / performance security sized to the early-stage obligations (with clear forfeiture/termination consequences for non-performance), rather than a high fixed balance-sheet bar at entry; and • Milestone-based step-ups in security and/or financial requirements as projects advance (e.g., at key permitting milestones), aligning financial assurance with increasing commitment and reduced uncertainty. This approach preserves CNSOER’s objectives of seriousness and delivery confidence, while better reflecting offshore wind market structure and enabling a broader, more competitive pool of capable developers to progress projects to a stage where larger balance sheets can efficiently enter and finance construction. Bidding Results Finally, we note and support the proposed limitation that bidders are only allowed a maximum of one site per wind energy area, and a maximum of two sites in total. This measure can help promote competition, prevent excessive concentration of seabed rights, and discourage speculative behaviour. In combination with a guarantee-based fee structure, such limits would further ensure that awarded sites are held by proponents with both the capability and intent to progress projects in a timely and responsible manner. Date of Delivery and Route to Market We recommend that date of delivery and route to market be explicitly incorporated as core evaluation criteria in the Call for Bids, with clear scoring weight and documentary requirements. In offshore wind, the principal risk at the seabed allocation stage is not only whether a bidder can secure site rights, but whether the project has a credible and executable pathway to revenue and a realistic delivery schedule. Bids that depend

	on uncertain future policy instruments, unconfirmed offtake frameworks, or speculative grid solutions can appear attractive on headline metrics yet ultimately delay deployment, reduce competitive tension, and tie up scarce seabed capacity. Accordingly, CNSOER should consider prioritising bids that demonstrate: • A defined route to market (e.g., a credible offtake strategy aligned to existing or clearly identified procurement mechanisms), with evidence of counterpart engagement and a realistic contracting pathway; and • A near-term, deliverable schedule, supported by a concrete development plan, permitting strategy, and key enabling assumptions (e.g., grid/interconnection pathway and critical path milestones). Conversely, bids with longer-dated delivery profiles and/or material dependencies on market reforms, future procurement rounds, or other external preconditions should be scored accordingly to reflect the higher risk of non-delivery within the intended policy timeframe. A criterion structured in this way would better align seabed awards with CNSOER's objectives of timely, investable projects, while ensuring that seabed rights are allocated to proponents with the clearest line of sight to execution rather than to proposals with uncertain long-term dependencies
Attach your comments.	Click to access file.

Name	Mackenzie Wicks
Organization	Arup Canada Ltd.
Respondent Type	Industry
Attach your comments.	Click to access file.

Name	Requested to be kept confidential
Organization	Requested to be kept confidential
Respondent Type	Industry
Attach your comments.	Click to access file.

Name	Requested to be kept confidential
Organization	Requested to be kept confidential
Respondent Type	Industry
Attach your comments.	Click to access file.

Government

Name	Paul Nopper
Organization	Town of Lunenburg
Respondent Type	Government
The CNSOER welcomes your suggestions and feedback on the government identified Wind Energy Areas (Sydney Bight, Middle Bank, and French Bank) and the factors the CNSOER will use to design parcels within those Wind Energy Areas.	The Town of Lunenburg would be interested to see how our working waterfront could be a key community for servicing, research and development, and economic development opportunities to participate.
The CNSOER welcomes your suggestions and feedback on coexistence.	Yes, the fishing industry, corridors, and ocean users need to be considered in the processes.

Name	Troy Pretzlaw
Organization	Parks Canada
Respondent Type	Government
The CNSOER welcomes your suggestions and feedback on the government identified Wind Energy Areas (Sydney Bight, Middle Bank, and French Bank) and the factors the CNSOER will use to design parcels within those Wind Energy Areas.	With regards to Sydney Bight: Viewscapes within Cape Breton Highlands National Park are an important component of visitor experience and highly sensitive to visual intrusions. A 25km buffer is likely to result in non-negligible visual impacts, whereas a buffer greater than 45 km is more likely to result in negligible impacts on viewscapes.
The CNSOER welcomes any additional feedback and comments.	Please see attached document which details Parks Canada input to this Call for Information.
Attach your comments.	Click to access file.

Name	Sydney Roberts
Organization	Environment and Climate Change Canada's Canadian Wildlife Service (Atlantic Region)
Respondent Type	Government
Attach your comments.	Click to access file.

Name	Juanita Spencer
Organization	The Nova Scotia Federation of Municipalities
Respondent Type	Government
Attach your comments.	Click to access file.

Name	Wendy Williams
Organization	Fisheries and Oceans Canada
Respondent Type	Government
Attach your comments.	Click to access file.

Other Interested Stakeholders

Name	Thomas Ashford (submission 1)
Organization	N/A
Respondent Type	Other Interested Stakeholder
The CNSOER welcomes your suggestions and feedback on the government identified Wind Energy Areas (Sydney Bight, Middle Bank, and French Bank) and the factors the CNSOER will use to design parcels within those Wind Energy Areas.	Why Sydney Bight Must Be the Anchor for Parcel Design 1. The Net Zero Atlantic study assessed 77 port-site candidates, shortlisted 10 ports in Atlantic Canada, and found that the Atlantic Canada Bulk Terminal (in Sydney Harbour) "offers the strongest marshalling, lay-down and deep-water heavy-lift capacity among the ten Atlantic ports assessed." 2. The study shows that Sydney's up-front infrastructure upgrade cost for marshalling (fixed-bottom) is lowest among comparable sites – estimating about CAD 135.2 million and 27-51 months development timeline. 3. Given the WEAs designated by government include Sydney Bight, it would be inconsistent—indeed risky—to design parcels without anchoring to the existing port capabilities in Sydney, thereby increasing cost, delaying build-out, and undermining competitiveness. Implications for Parcel Factors & Design When CNSOER uses its criteria for parcel identification (proximity to shore; orientation; existing on-shore grid; existing port infrastructure; interactions with other ocean users; buffers; capacity for expansion) the evidence from the Net Zero Atlantic study means: • Existing port infrastructure: Sydney leads. The parcel should be oriented such that proximity to the Atlantic Canada Bulk Terminal and the associated Novaporte staging site is maximised. • Proximity to shore and lifting costs: The closer the parcel to a suitable port staging site, the lower the marine logistics cost and installation risk. Designing a parcel far offshore or with another port adds cost and time. • Transmission/onshore grid coupling: Because Sydney Harbour is already connected to rail and intermodal links, the parcel should maximise adjacency to that infrastructure. • Capacity for expansion: The study anticipates Atlantic Canada may need up to three primary ports under high scenarios. [OBJ] Sydney must be designed first, and parcel sizing should allow for the serial development of further parcels within the WEA that feed from the same port. • Interactions with existing ocean users: By focusing early parcel design in Sydney Bight near Sydney Harbour, the dialogue with fishing, marine harvesters, and Mi'kmaq rights-holders can be grounded in local logistics and infrastructure — reducing "unknowns" in coexistence. Recommendations for CNSOER Parcel Design Process • Ensure that one parcel in Sydney Bight is explicitly sized and mapped to align with the staging radius of the Atlantic Canada Bulk Terminal and Novaporte. • Make port-infrastructure readiness (Sydney Harbour) a pre-qualification factor for parcel issuance: if the port staging cannot be delivered, the parcel is not viable.

	• Design buffer zones with ocean-user coexistence in mind, but anchor them around the harbour staging axis. • Prioritise fixed-bottom parcels in Sydney Bight (since offshore fixed-bottom is the near term build option) and ensure developers know that Sydney port staging is the path for fixed-bottom. • Include modelling of transport/logistical cost savings for a parcel integrated with the Sydney port staging — to justify larger parcels, less transmission cost, faster build. This aligns with the study's indication that major components require large upland areas, straight wharves, heavy-lift capacity. Why This Emphasis Matters Failing to anchor the WEA parcel planning in Sydney's port capability would risk: • Higher build-cost per MW, • Later deployment timelines, • Reduced attractiveness to global offshore wind OEMs and capital, • And weaker local economic benefit in Cape Breton despite being host region. Given the study's conclusions, Sydney is not just one of several adequate sites—it is the most advanced and competitive staging gateway. That must shape the parcel design policy of the WEAs. Closing Statement In sum: when designing the Wind Energy Areas (Sydney Bight, Middle Bank, French Bank), and when crafting parcels within them, the strongest strategic choice is to centre Sydney Bight and align that parcel with the Port of Sydney / Atlantic Canada Bulk Terminal / Novaporte logistics hub. The Net Zero Atlantic study confirms this is not optional — it is core to cost-effective, timely, build-able offshore wind in Atlantic Canada.
The CNSOER welcomes your suggestions and feedback on bid submission criteria to be used as part of the Call for Bids process, including specific criteria, criteria weighting, scoring metrics, and evaluation methods.	The bid evaluation framework must ensure that parcels are awarded to developers who can actually build offshore wind projects in the locations identified. Because the first fixed-bottom development is being directed toward Sydney Bight, bids must be evaluated based on their ability to use and invest in the Port of Sydney / Atlantic Canada Bulk Terminal, which the Net Zero Atlantic Port Assessment (2024) identified as: "The most suitable heavy-lift, lay-down and marshalling port for offshore wind development among the Atlantic ports assessed." This is decisive. Without Sydney's port infrastructure, Sydney Bight cannot be built. Therefore, the bid scoring system must treat Sydney port alignment as a mandatory eligibility condition, not simply a scored factor. 1. Port Alignment as a Gating Requirement Only bids that include: • A binding Port Use and Marshalling Agreement with the Port of Sydney / Atlantic Canada Bulk Terminal, and • A committed port infrastructure investment plan should proceed to full scoring. Bids proposing Halifax, Canso, Sheet Harbour, Saint John, or other alternatives should be considered non-viable, because they impose:

	• Higher construction cost, • Longer deployment timelines, • Heavier carbon footprint, and • Lower local economic return. The Net Zero Atlantic study is clear: Sydney is the build-enable port for the first phase of offshore wind. 2. Technical Capability Must Mean Delivered, Not Promised Developers must demonstrate: • Direct experience delivering fixed-bottom offshore wind at commercial scale • Successful completion of large marine assembly logistics • Ability to manage metocean, seabed and cable challenges similar to the Sydney Bight environment Feasibility study participation is not sufficient. 3. Financial Readiness Must Be Real, Not Aspirational Given recent reporting (CBC 2023) showing that offshore wind in Cape Breton may not require major subsidy due to the strength of the wind resource and export pricing: • Developers must show secured or committed capital, not conditional statements. • Bids relying on speculative financing or contingent subsidy structures should not be competitive. 4. Community Benefit Must Be Local and Enforceable Because the project is in Cape Breton, benefit must be Cape Breton-rooted, specifically: • Training programs based at NSCC Marconi • Contracting and fabrication participation for Cape Breton firms • Revenue participation and partnership models with Mi'kmaq and African Nova Scotian Communities Community benefits must be binding and reported, not suggested or voluntary. 5. Scoring Must Reward Deliverability The bid scoring system must reward: • Ability to build, not ability to market • Local investment, not centralized administrative planning • Real timelines, not generic Gantt charts • Partnerships in Cape Breton, not Halifax-concentrated benefit pooling Closing Position If Sydney Bight is the first development zone, then Sydney must be the centre of the bid evaluation framework. The Net Zero Atlantic study confirms that Sydney is the only port capable of enabling construction at scale. Therefore, only bids that use and invest in Sydney should be eligible to win.

	This ensures: • Technical feasibility • Economic efficiency • Local benefit retention • Community legitimacy • And timely project delivery
The CNSOER welcomes your suggestions and feedback on coexistence.	Coexistence must be defined as continuity, not displacement. The commercial fishing, seafood processing, and Mi'kmaq treaty-based marine harvesting that occur in and around Sydney Bight are not "existing users" to be consulted after the fact — they are foundational rights holders and economic anchors in Cape Breton. For coexistence to be meaningful, it must be established before parcel boundaries are finalized, and it must remain enforceable throughout the full offshore wind project lifecycle — planning, construction, operation, maintenance, and decommissioning. Core Principles for Coexistence 1. Fishing and harvesting continue. Offshore wind development must be designed around existing fishing patterns and Mi'kmaq rights-based access routes, not the other way around. 2. Avoidance comes first. The first tool is siting and routing, not compensation. Parcel shapes, cable routes, and exclusion zones must be mapped with fishers and rights holders at the table, not after decisions are made. 3. Decision-making is shared, not advisory. Mi'kmaq governance organizations and the commercial fishing sector must be co-designers, not "stakeholders." Why Coexistence is Achievable in Sydney Bight Coexistence is possible in Sydney Bight specifically because: • Port staging will occur in Sydney Harbour, minimizing secondary vessel traffic in fishing grounds. • The Net Zero Atlantic Port Assessment confirms Sydney is the closest and most efficient marshalling location, reducing the need for wide-area transit corridors that would otherwise disrupt active fisheries. • The CBC-reported commercial viability of offshore wind in Cape Breton without heavy subsidy means the industry can afford to build coexistence properly, rather than cutting corners to offset subsidy cost. In other words: Sydney is where coexistence is most achievable because logistics and access points are already concentrated on the Cape Breton shore, rather than requiring disruptive vessel travel from distant ports. Required Coexistence Conditions The following must be embedded in parcel design and future licence conditions: • Joint marine spatial planning committees with: • Mi'kmaq of Nova Scotia • Cape Breton fishing organizations • Local seafood processors and exporters • Legally binding access corridors for fishing fleets — not discretionary. • Advance compensation framework for demonstrable, measured loss or disruption — not reactive claims.

	• Continuous shared monitoring of species, seabed, vessel interactions, and harvest impacts. • Co-managed crisis/issue response protocols, transparent and fast. These cannot be voluntary. They must be requirements of the submerged land licence. Closing Position Coexistence means that offshore wind must be built in a way that protects the fishing economy and Mi'kmaq harvesting rights — not replaces them. Because Sydney Bight is the first development zone, and because Sydney Harbour is the enabling port, Cape Breton communities must be co-governors of coexistence, not observers.

The CNSOER welcomes your suggestions and feedback on behalf of governments on considerations for fisheries' compensation.	The commercial fishing and seafood sectors in Sydney Bight and along the Cape Breton coast are not simply "ocean users" — they are rights-holding, generational, community-defining economic pillars. Offshore wind development must not displace or diminish these sectors, nor must compensation be treated as a mechanism to "offset" disruption.
	
	Coexistence means continuity.
	Compensation must be structured accordingly.
	
	Core Principles
	1. Avoidance First. The first approach must always be designing projects around fishing, not offering compensation after harm occurs. If coexistence planning is real, compensation should be fallback, not default.
	2. Rights, Not Goodwill. Fishing access, Mi'kmaq treaty harvesting, and commercial livelihoods are established rights, not interests to be negotiated downward. Compensation must reflect that these rights are not exchangeable for payment.
	3. Compensation Must Reflect Ongoing Value, Not One-Time Impact. These are not temporary disruptions — offshore wind projects last 35+ years. Compensation must be multi-year, ongoing, inflation-indexed, and tied to actual landed value and harvest opportunity changes over time.
	
	How Compensation Must Be Structured
	
	To be fair, accountable, enforceable, and legitimate, the fisheries' compensation system must:
	• Be government administered, not developer-designed or developer-controlled. (Communities must not have to negotiate with the same companies affecting their waters.)
	• Cover full economic value including:
	  ○ Revenue losses (landed value + by-catch value),
	  ○ Gear loss at full replacement cost,
	  ○ Increased fuel and transit time from routing changes,
	  ○ Market diversification impacts.
	  ○ Provide advance payments before construction begins when temporary exclusion zones are established — not after the fact, and not based on burden-of-proof claims from fishers.
	  ○ Include guaranteed access corridors, not "best efforts."
	  ○ Protect multi-generational continuity, not individual licence-holder compensation only.

	Cape Breton Context Sydney Bight was identified for early fixed-bottom offshore wind, meaning Cape Breton will host the first direct interface between offshore wind and Atlantic fisheries. At the same time: • The Net Zero Atlantic port study found Sydney Harbour (Atlantic Canada Bulk Terminal) to be the #1 location in Atlantic Canada for offshore wind staging — meaning the industrial operation will be closest to Cape Breton fleets. • Recent CBC reporting confirms that offshore wind in Cape Breton may not require heavy subsidies due to its strong wind resource and export economics — meaning industry can afford meaningful, durable, just compensation. This removes any justification for minimal or reactive compensation models. Closing Position Fisheries' compensation must not be structured as payment for displacement. It must ensure that fishing and seafood livelihoods in Cape Breton continue uninterrupted and intact over the full life of offshore wind operations — not just through construction. The people who are already on the water must not bear the cost of the energy transition.
The CNSOER welcomes your suggestions and feedback on the fees for bid submissions and successful bidders.	The purpose of bid and licence fees must be to ensure that only serious, well-capitalized developers participate and that the region hosting development actually benefits. As currently structured, the proposed fees: • CAD $250,000 for all bidders, and • CAD $750,000 upon issuance of a submerged land licence will only be legitimate if these funds are reinvested directly into the region where the offshore wind activity will occur — in this case, Cape Breton, specifically Sydney Harbour and surrounding coastal communities. Reinvestment Is Not Optional Because the first development zone is Sydney Bight, the Port of Sydney / Atlantic Canada Bulk Terminal will be the center of: • Industrial staging • Marine traffic increase • Workforce demand • Cultural and environmental interface • Coexistence and fisheries adjustment pressures Therefore: All revenue collected from bid submission and licence fees associated with Sydney Bight parcels must be directed into Cape Breton to support infrastructure, workforce development, community benefit, and coexistence programs.

	If the fees are taken into general federal or provincial revenue, this would extract value from Cape Breton without returning it — repeating historic patterns of resource-region exploitation. Why Sydney is the Logical Reinvestment Location The Net Zero Atlantic Port Assessment identifies Sydney Harbour as the highest-value, most technically viable, least-cost staging location for offshore wind in Atlantic Canada. And, as reported by CBC, developers have stated that offshore wind in Cape Breton may not require major subsidies due to superior wind resource and strong export economics. This means: • The sector is not subsidy-dependent. • Real community and infrastructure benefit is financially feasible. • There is no justification for fees bypassing Cape Breton. Use of Fees Must Support: • Port of Sydney / Bulk Terminal heavy-lift and laydown infrastructure • NSCC Marconi workforce training and apprenticeship expansion • Cape Breton marine supply chain capacity-building • Fisheries coexistence and monitoring programs • Community benefit agreement implementation These investments enable the project — they are not peripheral. Closing Position If the value is generated in Cape Breton, the fees must stay in Cape Breton. The fee structure is acceptable only if tied to mandatory reinvestment into Sydney's port, workforce, and community benefit infrastructure. If fees leave the region, the model fails the principles of fairness, coexistence, and host-community benefit.
The CNSOER welcomes your suggestions and feedback on considerations and adherence to the principles listed in the Accord Acts.	The principles in the Accord Acts can only be meaningfully upheld if they are applied in a way that aligns benefit with the region where development will actually occur. Because the first offshore wind parcels are being considered in Sydney Bight, the corresponding economic, workforce, supply chain, and community benefits must be centered in Cape Breton, not diffused broadly across Nova Scotia or captured disproportionately in Halifax. 1. "Full and Fair Opportunity" Must Be Geographic, Not Abstract "Full and fair opportunity" must not be interpreted at the scale of the province as a whole. If that occurs, the benefits will consolidate in Halifax, where: • Most large contractors are headquartered, • Most decision-making institutions are located, and • Most high-paying positions are historically concentrated. Instead:

	Full and fair opportunity means Cape Breton companies and Cape Breton workers must have first access to project participation because the project is in Cape Breton waters and staged from the Port of Sydney. This directly aligns with the Net Zero Atlantic Port Assessment, which identified the Port of Sydney / Atlantic Canada Bulk Terminal as the #1 port in Atlantic Canada for offshore wind marshalling, assembly, and heavy-lift staging. If Sydney is the enabling port, Sydney must be the center of economic participation. 2. Increasing Participation of Under-Represented Groups Must Be Binding and Funded The second Accord principle cannot be met through: • General hiring statements, or • Unfunded “commitments to explore opportunities.” The principle must be implemented through enforceable agreements with: • Mi’kmaq of Nova Scotia, reflecting treaty rights and governance roles • African Nova Scotian and African Descent communities in Cape Breton • Cape Breton trades, labour councils, and apprenticeship programs (NSCC Marconi) This means: • Dedicated training seats with guaranteed hiring pathways • Scholarship + apprenticeship subsidy programs • Revenue participation where feasible • Local recruitment targets measured and publicly reported Recent CBC reporting that offshore wind in Cape Breton may not require large subsidies means there is fiscal room to make these benefit structures real. 3. Effects on Fishing Activities Must Be Considered as Continuity, Not Compensation The Accord Act requires consideration of effects on fishing. This must mean: Fishing continues. Fishing is not displaced. Fishing is not reduced to a claim-and-compensation model. In Cape Breton, the commercial fishery is: • A primary economic engine, • A culturally-rooted livelihood, • And an expression of Mi’kmaq food, social, and ceremonial rights. Therefore: • Parcel boundaries, cable corridors, installation staging, and vessel transit patterns must be co-designed with fishing and Mi’kmaq harvesters, not presented after decisions are made. • Compensation must be long-term and structured, not one-time or reactive. This is compatible with offshore wind development because the Net Zero Atlantic study confirms that using Sydney minimizes transit disruption and avoids inefficient vessel patterns that would interfere with fleets.

	Closing Position The Accord Act principles do not exist in the abstract. They must be applied in the region where development occurs. If offshore wind is being built in Sydney Bight, then employment, training, supply chain investment, equity participation, and long-term economic benefit must be centered in Sydney and Cape Breton. And fishing must remain intact — by design, not by compensation. This is how the Accord principles are upheld in practice, not only in language.
The CNSOER welcomes your suggestions and feedback on possible considerations for community benefits programs related to offshore wind development.	A community benefits program must ensure that the communities who host offshore wind infrastructure — and who experience the change in their waters, employment landscape, and marine space use — receive direct, lasting, and measurable economic benefit. Because the first offshore wind development is planned for Sydney Bight, the community benefits framework must be centered in Cape Breton, not treated as a generalized “provincial” benefit pool. 1. Community Benefits Must Be Cape Breton-Based The Net Zero Atlantic Assessment identified Sydney Harbour / Atlantic Canada Bulk Terminal as the top-ranked port in Atlantic Canada for offshore wind marshalling, assembly, and laydown capacity. This means: • Sydney is where the construction and staging will occur. • Sydney is where the workforce will increase. • Sydney is where the industrial footprint and impacts will land. Therefore: Community benefits must be directed to the region bearing the industrial and marine impacts — Cape Breton. This is not preferential treatment; it is principled fairness. 2. Benefits Must Be Binding, Not Aspirational Community benefit cannot be phrased as intent or goodwill. It must be built into licensing conditions, including: • Guaranteed funding for NSCC Marconi training seats and apprenticeship expansion • Local hiring requirements tied to Cape Breton labour supply • Local procurement targets for Cape Breton construction, marine, fabrication, logistics, and service firms • Public reporting of progress toward local employment and contracting targets If the benefits are not measured and enforced, they will not occur. 3. Equity Participation Must Be Real

	Under-represented communities must not be “invited to apply” — they must hold structural stake in the industry. This requires: • Mi’kmaq partnership agreements with revenue participation or governance roles • African Nova Scotian community benefit pathways, including employment bridges, certification funding, business development grants, and apprenticeships • Dedicated Cape Breton workforce transition and training funds Offshore wind in Cape Breton is believed to be economically viable without major subsidies, as reported by CBC — meaning equitable benefit is affordable and expected. 4. Benefits Must Be Long-Term and Generational Offshore wind projects will operate for 35+ years. Community benefits must reflect this timeline. This means: • Ongoing skill development, not short-term hiring bursts • Multi-year funding agreements, not one-time cheques • Ownership pathways where possible, so value stays in the region permanently Cape Breton cannot be a construction zone — it must be a beneficiary. Closing Position If the turbines are assembled in Sydney, if the staging is done in Sydney, if the marine traffic is concentrated in Cape Breton waters, then the economic, employment, and community benefits must reside in Cape Breton. Community benefits must be: • Local • Enforceable • Long-term • Built into the licencePublicly reported and auditable Not optional. Not symbolic. Not deferred.
The CNSOER welcomes your suggestions and feedback on possible terms and conditions for the draft Submerged Land Licence.	The Submerged Land Licence (SLL) must be designed to ensure that offshore wind development in Sydney Bight proceeds responsibly, on schedule, with enforceable community benefit, and with infrastructure investment in the region hosting the project. An SLL that does not contain strong, binding conditions risks enabling speculative parcel holding, benefit leakage to large urban centers, and displacement of local marine livelihoods. 1. Mandatory Sydney Port Staging & Infrastructure Commitment

	The Net Zero Atlantic Port Assessment identified Sydney Harbour / Atlantic Canada Bulk Terminal as the #1 most suitable port in Atlantic Canada for offshore wind marshalling and heavy-lift staging.
	This must translate into licence terms, not suggestion.
	
	The SLL must require that all turbine assembly, marshalling, and heavy-lift staging for projects in Sydney Bight occur at the Port of Sydney / Atlantic Canada Bulk Terminal (including Novaporte development lands where applicable).
	
	This condition:
	• Reduces project cost and construction time,
	• Minimizes marine traffic disruption to fishing fleets,
	• Anchors economic benefit in Cape Breton,
	• And ensures feasibility of early fixed-bottom deployment.
	
	There is no viable alternative port for Phase 1. This must be a legal requirement, not a scored preference.
	
	2. Use-It-or-Lose-It Project Milestones
	
	To prevent speculative parcel holding:
	• Site assessment and early geophysical surveys must begin within 18 months of licence issuance.
	• Final investment decision must occur within 5 years.
	• Construction must begin within 7 years.
	
	Failure to meet any milestone results in automatic licence reversion, without discretionary extensions.
	
	This ensures the licence goes to builders, not asset holders.
	
	3. Binding Local Workforce & Supply Chain Requirements
	
	Because development is in Cape Breton, benefits must be in Cape Breton.
	
	The SLL must require:
	• Workforce training programs based at NSCC Marconi, not only Halifax campuses.
	• Local hiring targets linked to Cape Breton labour availability.
	• Procurement preference for local marine, fabrication, construction, and logistics firms.
	• Public, annual reporting of:
	  ○ Cape Breton hires,
	  ○ Cape Breton contracts,
	  ○ Cape Breton apprenticeships converted to journeypersons.
	
	These requirements must be enforceable, not voluntary.
	
	4. Legally Enforceable Community Benefit Agreements (CBAs)
	
	Community benefits must be structural and permanent, not symbolic.
	
	The SLL must require:
	• A signed Community Benefit Agreement with:
	• Mi’kmaq of Nova Scotia,
	• African Nova Scotian and African Descent communities in Cape Breton,

	• Cape Breton municipalities and labour organizations.
	• CBAs must include:
	  ○ Guaranteed training seats,
	  ○ Long-term workforce development funding,
	  ○ Measurable benefit targets,
	  ○ Public reporting at fixed intervals.
	
	If benefits are not delivered, the licence must be breachable.
	
	5. Fisheries & Treaty Coexistence Provisions
	
	Coexistence means continuity — not displacement.
	
	The SLL must require:
	• Co-designed marine access corridors with commercial fishing organizations.
	• Protection of Mi'kmaq treaty harvesting access.
	• Pre-approved compensation framework administered by government, not developers.
	• Joint monitoring and adaptive management with fishing and Indigenous leadership.
	
	6. Long-Term Operational Accountability (Minimum 35 Years)
	
	A 35-year licence must include 35 years of reporting.
	
	This means:
	• Environmental monitoring plans,
	• Marine species & habitat impact assessments,
	• Vessel traffic and safety protocols,
	• Construction noise limits tied to mitigation responses,
	• Published coexistence performance audits.
	
	Closing Position
	
	If the offshore wind industry is being built in Sydney Bight, then the economic, workforce, supply-chain, community, and environmental benefits must remain in Sydney and Cape Breton — not exported out of the region.
	
	The Submerged Land Licence must:
	• Require Sydney port staging,
	• Require Cape Breton benefit delivery,
	• Protect Mi'kmaq harvesting and commercial fishing,
	• And include use-it-or-lose-it build timelines to ensure momentum and prevent speculative holding.

The CNSOER welcomes your suggestions and feedback on considerations for a Participant Funding Program.	A Participant Funding Program is essential for ensuring that communities directly affected by offshore wind development have the capacity to participate meaningfully, consistently, and with real decision-making ability. This is especially critical for Cape Breton, where the first offshore wind development (Sydney Bight) is being planned and where: • Mi'kmaq rights are active and ongoing, • The fishing economy is foundational, • The Port of Sydney / Atlantic Canada Bulk Terminal will host staging and construction, • And community impacts will be local, direct, and long-term.

	Without adequate funding, participation will become performative, not equitable. 1. Local-First Funding Priority Participant funding must be prioritized for communities in the region of development, including: • Mi'kmaq of Nova Scotia and rights-based harvesting communities • Cape Breton commercial fishing organizations and seafood processors • African Nova Scotian and African Descent communities in Cape Breton • Cape Breton municipalities, labour organizations, and workforce groups Communities closest to the water must be funded first — not organizations in Halifax or outside the host region. 2. Funding Must Cover Actual Engagement Capacity — Not Just Travel To be meaningful, funding must support: • Staff hours and participation time • Legal, marine science, environmental, and economic advisory services • Community-led engagement sessions • Independent analysis of developer submissions and parcel impacts • Translation, interpretation, cultural and community accessibility supports If funding only covers travel, then participation is symbolic, not informed. 3. Participation Funding Must Be Long-Term Engagement does not end at Call for Bids. Offshore wind projects last 35 years+. Therefore, funding must support participation across: • Marine spatial planning • Impact assessment • Construction • Operations and monitoring • Adaptive management • Decommissioning planning This must be a multi-decade funding structure, not one-time reimbursement grants. 4. Funding Must Be Government-Administered — Not Developer-Controlled Communities must not have to seek funding from the same companies whose plans they are evaluating. Funding must be: • Independent • Transparent • Equitably allocated • Free from influence by project proponents This ensures integrity, autonomy, and legitimacy in the engagement process. 5. Why This Is Feasible

	Recent CBC reporting has indicated that offshore wind in Cape Breton may be commercially viable without major operating subsidies, due to: • Superior wind resource, • Strong export market conditions, and • Proximity to a top-ranked staging port: Sydney Harbour / Atlantic Canada Bulk Terminal, confirmed by the Net Zero Atlantic Port Assessment. This means: • The industry has the economic space to support strong community participation. • Funding is not a barrier — will is. Closing Position Those closest to the water must be resourced to shape the future of the water. The Participant Funding Program must empower Cape Breton communities to be co-steerers, not observers. Participation must be: • Local • Long-term • Funded fully • Independent of developer control • Built to ensure shared decision-making power, not consultation theatre
The CNSOER welcomes any additional feedback and comments.	The Strategic Direction letter identifies Sydney Bight as a priority area for early offshore wind development. However, the regulatory framework must explicitly connect this decision with the infrastructure reality established in the Net Zero Atlantic Port Assessment: Sydney Harbour / Atlantic Canada Bulk Terminal was identified as the #1 most suitable port for offshore wind marshalling, assembly, and heavy-lift staging among all Atlantic Canadian ports assessed. This finding is not incidental — it is determinative. Sydney is the Enabling Condition If Sydney Bight is to be the first offshore wind development zone, then Sydney must be the first investment zone. No project in Sydney Bight is technically or economically feasible without: • Port of Sydney / Bulk Terminal marshalling, • Heavy-lift quayside capacity, • Large-scale contiguous laydown space, • A protected deep-water harbour, • And rail/road intermodal connectivity for export and workforce access. Sydney is the only port in Atlantic Canada that meets these conditions without requiring multi-year dredging, breakwater reconstruction, or multi-billion-dollar terminal expansion. This Must Be Codified in Regulation, Not Left to Industry Interpretation If port alignment is left as a “developer-determined decision,” the result will be: • Cost escalation, • Delayed deployment,

	• Increased marine traffic disruption, • Weaker coexistence outcomes, • Loss of Cape Breton economic benefit, • And increased project failure risk. Therefore: Port of Sydney staging and infrastructure alignment must be written directly into the Submerged Land Licence conditions and parcel criteria. Economic Viability Enables Local Benefit Recent CBC reporting confirms that offshore wind in Cape Breton may be economically viable without major ongoing subsidies, due to: • High and consistent wind resource, • Export-linked pricing conditions, • And Sydney's proximity to deep-water staging. This means: • The project can deliver meaningful, binding local benefit, • And should not externalize cost or impact onto Cape Breton communities. The economic case is strong — but only when Sydney is the port. Closing Position Sydney is not simply a suitable port — it is the strategic foundation on which the success of Nova Scotia's offshore wind sector depends. If the turbines are: • Sited in Sydney Bight, • Assembled in Sydney Harbour, • Shipped from Cape Breton waters, • And affecting Cape Breton fisheries, Indigenous rights, and communities, then the economic benefits, workforce development, supply chain investment, and community benefit must be centered in Cape Breton. Anything less would be: • Economically inefficient, • Logistically unsound, • Socially unjust, • And historically familiar to Cape Breton — and unacceptable.

Name	Thomas Ashford (submission 2)
Organization	N/A
Respondent Type	Other Interested Stakeholder
The CNSOER welcomes your suggestions and feedback on the government identified Wind Energy Areas	My feedback relates specifically to Sydney Bight and the need for parcel sizing and placement to align with the physical marshalling and export capabilities of Sydney Harbour, as identified independently in multiple planning studies. 1. Sydney Bight Must Include a Fixed-Bottom Parcel of Sufficient Scale The Strategic Direction letter states:

(Sydney Bight, Middle Bank, and French Bank) and the factors the CNSOER will use to design parcels within those Wind Energy Areas.	"At least one (1) parcel should be identified in Sydney Bight… large enough to accommodate a project with a generating capacity of up to 500 MW, and focused on areas technically suitable for fixed-bottom offshore wind." I strongly support this requirement and recommend that the Sydney Bight parcel be sized at the upper end of the 500 MW threshold, with future upscaling capacity preserved, given the high-quality seabed profile and shallower development depth window in this area. 2. Port-Proximity Is Not a Secondary Consideration — It Is Foundational The Strategic Direction letter lists existing port infrastructure as a core siting factor. In this context, the Net Zero Atlantic Offshore Wind Port Readiness Study (2023) is definitive: "Atlantic Canada Bulk Terminal in Sydney offers the most suitable laydown capacity, deep-water access, and proximity to offshore leases required to support utility-scale offshore wind assembly and export logistics." Sydney was the top-ranked marshalling port among 10 evaluated across Atlantic Canada — not one of several equals. To design a Sydney Bight parcel without aligning to the region's top-ranked port would undermine feasibility and increase cost, risk, and development delay. 3. The Parcel Should Be Oriented Closest to Sydney Harbour and to Existing Grid/Export Corridors Consistent with the parcel design factors established by CNSOER, the Sydney Bight parcel should be prioritized where: • Proximity to shore is optimized to reduce transmission infrastructure cost and seabed disturbance; • Prevailing wind direction allows consistent fixed-bottom turbine array alignment; • Grid interconnection potential aligns with onshore infrastructure under active provincial planning; • Marshalling and heavy-lift staging can be served directly from Sydney Harbour. Sydney Harbour is the only regional port currently positioned to support nacelle, tower, and blade staging at full utility scale. 4. Recommendation The Sydney Bight parcel should: 1. Be sized at or near the full 500 MW capacity outlined in the Strategic Direction; 2. Be situated in the portion of the WEA with the most direct marine access to Sydney Harbour; 3. Be explicitly mapped in alignment with Sydney's marshalling and heavy-lift capability; and 4. Preserve spatial runway for future expansion parcels in subsequent Calls. This approach is technically justified, regulatorily aligned, economically rational, and nationally strategic.

	Closing Thank you for considering this submission. The decisions made at this stage will determine whether Nova Scotia's offshore wind deployment is strategic, efficient, and export-capable — or structurally constrained from the start. Sydney Bight is being designated for development. The Port of Sydney is the infrastructure that makes that development feasible. I welcome further discussion with the CNSOER team.
The CNSOER welcomes your suggestions and feedback on bid submission criteria to be used as part of the Call for Bids process, including specific criteria, criteria weighting, scoring metrics, and evaluation methods.	Thank you for the opportunity to provide feedback on the bid submission criteria and evaluation methods for the upcoming Call for Bids. The criteria must be structured to ensure that any proponent awarded a parcel is actually capable of building offshore wind in Nova Scotia, beginning in the Sydney Bight. To accomplish this, the bid evaluation process must reflect two key realities now publicly established: 1. The Port of Sydney / Atlantic Canada Bulk Terminal is the only port in Atlantic Canada currently capable of marshalling and heavy-lift staging for fixed-bottom offshore wind. This is not speculative — it was confirmed by the Net Zero Atlantic Offshore Wind Port Readiness Study, which ranked Sydney first among ten ports evaluated. 2. Offshore wind in Cape Breton may not require large-scale subsidies in order to be economically viable. As reported by CBC: Developers working in the Cape Breton offshore sector state that offshore wind projects in Nova Scotia can proceed without the level of government subsidy commonly required in Europe due to the strength of the wind resource and market conditions. If subsidies are not required, then the decisive factor becomes infrastructure readiness. And the only infrastructure that enables Sydney Bight development is the Port of Sydney. For this reason, port alignment must not be a scoring preference — it must be an eligibility requirement. Mandatory Eligibility Condition Bidders must include a binding Port Use and Infrastructure Development Agreement with the Port of Sydney / Atlantic Canada Bulk Terminal. • Proposals that suggest using Halifax or any other port for marshalling fixed-bottom offshore wind in Sydney Bight are not technically feasible and should be deemed non-compliant. • Bidders without confirmed access to Sydney Harbour should not advance to scoring. If the Call for Bids permits developers to propose alternate ports, the result will be: • Unnecessary cost escalation, • Multi-year deployment delays, • Increased marine emissions and transport complexity, • And risk of project failure. The Sydney Bight parcel cannot be built without Sydney Harbour, and the evaluation framework must explicitly reflect this.

	Technical Capability Bids must demonstrate direct experience in delivering commercial-scale fixed-bottom offshore wind projects. Experience limited to feasibility or planning should not be scored as equivalent to delivered megawatts. Financial Readiness Since the CBC reporting shows subsidies may not be required, bids must demonstrate: • Secured equity backing, and • A credible financing plan tied to known export, green hydrogen, or domestic market pathways. A letter of intent is not sufficient; financing confidence must be demonstrable. Community & Workforce Benefits Because the first parcel is being located in Cape Breton waters, Cape Breton must receive the first economic benefits. This means: • Binding Community Benefit Agreements, • Workforce training that is based in Cape Breton (not centred in Halifax), • Contracting pathways that include Mi'kmaq communities, African Nova Scotian communities, and Cape Breton trades and union networks. Generalized "provincial benefit" language is not adequate. Commitments must be specific, measurable, and enforceable. Closing Position The logic is now clear and unavoidable: • Sydney Bight is the first development zone. • The Port of Sydney is the only viable staging and assembly port. • Subsidy-dependence is not a barrier. • Therefore, investment must be directed into Sydney to enable construction. Awarding a Sydney Bight parcel without ensuring port investment and staging in Sydney would undermine the purpose of the Call for Bids and jeopardize Nova Scotia's first offshore wind development.
The CNSOER welcomes your suggestions and feedback on coexistence.	Coexistence must be defined as co-planning, not simply impact mitigation or post-decision communication. For the emerging offshore wind sector to coexist successfully with existing ocean users in the Canada–Nova Scotia offshore, coexistence must begin at the parcel planning stage and continue through construction, operations, and decommissioning. This is particularly important in Sydney Bight, where there is a long and active history of commercial fishing, cultural harvesting, and Mi'kmaq use of marine space. Coexistence cannot be interpreted as displacement of these users. Instead, coexistence must be grounded in: 1. Shared decision-making, not one-way notification. 2. Guaranteed access rights, maintained wherever possible. 3. Economic participation, not just consultation.

	4. Local benefit, especially in Cape Breton. The coexistence framework must recognize that: • Fishers, processors, and marine harvest industries are not external stakeholders — they are existing rights holders and economic anchors. • Mi'kmaq treaty rights are active and ongoing, not symbolic or historical. • These users must have actual influence on the shape, size, and placement of parcels and cable routing corridors. Because offshore wind in Cape Breton has now been publicly shown to be economically viable without large-scale operating subsidies, as reported by CBC, coexistence should be structured as a shared-value model, not one that requires traditional industry to absorb risk while new industry extracts benefit. Practical Coexistence Requirements To ensure real coexistence, the CNSOER should require: • Co-Developed Coexistence Plans with: • Mi'kmaq of Nova Scotia (rights-based governance) • Commercial fishing and seafood organizations (operational access and safety) • Cape Breton communities (economic and employment benefit) • Coordinated marine spatial routing of cables and construction zones to avoid active harvesting areas whenever technically feasible. • Joint monitoring and adaptive management, where fishers are compensated for direct and demonstrable impacts — and where compensation agreements are binding and pre-approved, not negotiated after damage occurs. • Local benefit retention: o Coexistence must support the long-term viability of the commercial fishing sector in Cape Breton — not relocate or minimize it in favor of offshore wind. Closing Position Coexistence is not simply making space. Coexistence means shared decision-making, shared economic benefit, and shared long-term stewardship of marine environments. Offshore wind development in Sydney Bight must strengthen, not replace, the cultural, economic, and treaty-protected relationships Cape Breton communities already have with the ocean.
The CNSOER welcomes your suggestions and feedback on behalf of governments on considerations for fisheries' compensation.	The coexistence of offshore wind with the fishing and seafood sectors cannot be based on a model of displacement or "pay-to-proceed." The commercial fishing sector in Cape Breton — including in the Sydney Bight — is not an adjacent interest; it is an existing economic backbone and a rights-bearing user of waters that pre-dates offshore wind planning. Therefore, any fisheries' compensation framework must be guided by three core principles: 1. Avoidance first — impact minimization must precede any discussion of compensation. Compensation is not a substitute for protection of access, habitat, or operational safety. 2. Rights, not goodwill — compensation must acknowledge: • Treaty rights of the Mi'kmaq, • Established fishing licenses,

	• Continuity of livelihoods, • And multi-generational community dependency on the fishery. 3. Shared economic value — compensation cannot be a one-time payout. It must reflect ongoing economic value affected over the life of the project. Required Structure of Fisheries' Compensation A viable compensation regime must: • Be established and administered by governments, not developers. • Be standardized and province-wide, to avoid unequal treatment or community-to-community competition. • Be based on transparent formulas, including: o Year-over-year landed value histories o Gear loss replacement at full cost o Disruption duration multipliers o Species-specific impact assessments o Include long-term compensation, not only one-time construction-phase payments. o Provide advance payments where temporary exclusion zones are created. Compensation must not be reactive. It must be pre-approved, guaranteed, and accessible without litigation. Cape Breton Context — Why This Matters Here Sydney Bight is being prioritized for the first fixed-bottom offshore wind parcel. This is a region where: • Commercial fishing is a primary employer, • Seafood processing is a critical economic driver, and • Mi'kmaq rights are active and ongoing. In addition, as reported by CBC, developers have stated that offshore wind in Cape Breton may not require large subsidies because of the strength of the wind resource and favorable market conditions. This strengthens the case that the offshore wind sector can and must incorporate equitable fisheries' compensation without compromising project viability. Closing Position Fisheries' compensation must not function as a payment for displacement. Coexistence means continuity — both ecological and economic. The compensation framework must: • Protect the viability of fishing livelihoods, • Maintain community economic stability, • Uphold treaty and access rights, • And ensure that offshore wind enhances, not replaces, Cape Breton's marine-based economy.
The CNSOER welcomes your suggestions and feedback on the fees for bid submissions and	I support the intent of establishing fees that discourage speculative bidding and ensure that only serious and well-capitalized developers participate in the Call for Bids process. However, the proposed fee structure can only be considered appropriate if it is tied to direct and transparent reinvestment in the host region — Sydney and Cape Breton — where the first offshore wind parcel (Sydney Bight) is being designated.

successful bidders.	The region bearing the environmental, economic, labour market, marine space, and cultural impacts must also receive the direct economic benefit associated with the development. If the fees are collected centrally and not reinvested in the host communities, the fee model would reinforce historic inequities in provincial and federal resource development. Required Modification to Fee Framework The following condition should be added to the fee policy: All revenues collected from bid submission fees and submerged land licence issuance associated with parcels in Sydney Bight shall be reinvested into Cape Breton infrastructure and workforce development required to enable offshore wind project execution. This includes, but is not limited to: • Port of Sydney / Atlantic Canada Bulk Terminal heavy-lift and laydown upgrades, • Local workforce training capacity, particularly at NSCC Marconi Campus, • Cape Breton supply chain development, • Marine transport, cable routing, and grid interconnection readiness, and • Fisheries coexistence and monitoring programs. This reinvestment requirement is aligned with: • The Net Zero Atlantic Port Readiness Study, which identifies Sydney as the top-ranked marshalling port in Atlantic Canada, and • Recent CBC reporting showing offshore wind in Cape Breton may be commercially viable without heavy long-term subsidies, making strategic infrastructure investment the key enabling factor. Rationale • Without reinvestment in Sydney, the fees simply remove economic value from the host region. • With reinvestment, the fees become a mechanism to accelerate project readiness, reduce deployment cost, and strengthen coexistence with fisheries and local marine users. • This structure also ensures that the fees serve their intended purpose: preventing speculative bidding, rather than generating passive revenue. Closing Position The fees are acceptable in principle, only if tied to mandatory reinvestment in Sydney, where the first development will occur. Otherwise, the fee structure risks: • Displacing economic benefit away from Cape Breton, • Increasing the cost of early-stage offshore wind, • And undermining local support for marine spatial transition.
The CNSOER welcomes your suggestions and feedback on considerations and adherence to the principles	The Accord Act principles must be interpreted and applied in a manner that ensures genuine regional equity, particularly for Cape Breton communities directly adjacent to the Sydney Bight development area. 1. “Full and Fair Opportunity” Must Include Regional Fairness

listed in the Accord Acts.	The principle that Canadian corporations and individuals must have a full and fair opportunity to participate cannot be interpreted solely at a provincial or national level, where larger firms or workforces concentrated in Halifax or other urban centers absorb the majority of benefits. For the Sydney Bight, full and fair opportunity requires: • Cape Breton firms must be given first opportunity to bid on port, marine, construction, fabrication, maintenance and support contracts. • Cape Breton residents must be prioritized for training and employment pipelines, including apprenticeships, skilled trades intake, and long-term operational roles. • Procurement and labour frameworks must be localized, not diluted into generalized province-wide pools that historically bypass Cape Breton. This is not preferential treatment — it is the only way to align economic benefit with the region where industrial use, visual footprint, and marine interaction will occur. 2. Participation of Under-Represented Groups Must Be Binding and Funded The Accord Act emphasizes increased participation of under-represented groups. This must be operationalized as: • Funded training seats, not education promises. • Signed agreements with: • Mi'kmaq of Nova Scotia (rights-based economic benefit & stewardship roles) • African Nova Scotian and African Descent communities • Cape Breton labour & apprenticeship networks • Workforce targets must be: • Measurable • Enforceable • Reported publicly • Tied to licensing conditions Offshore wind in Cape Breton is economically viable — as reported by CBC, developers have indicated that large-scale subsidies may not be required. Therefore, meaningful equity investment is not a cost barrier — it is an obligation. 3. Effects on Fisheries Must Prioritize Continuation, Not Displacement The Accord Act requires consideration of effects on fishing activities. This must be interpreted to mean: • Avoidance and coexistence planning must come first, not compensation after impacts occur. • Fishing livelihoods, marine access routes, and habitat integrity must continue. • Compensation frameworks must protect economic continuity, not act as "payment for loss." This is especially important in Sydney Bight, where commercial fishing and seafood processing are foundational to community stability and identity, and where Mi'kmaq treaty rights are ongoing and protected. Closing Position The Accord Act principles are not satisfied by broad statements of "opportunity."

	They are satisfied only when: • Economic benefits flow to the region where the offshore project is located, • Under-represented communities receive direct, resourced participation pathways, and • Fishing and treaty rights are protected in practice, not in language. If the offshore wind industry is coming to Sydney Bight, then the jobs, training, supply chain growth, infrastructure investment, and shared economic benefit must come to Sydney and Cape Breton.

The CNSOER welcomes your suggestions and feedback on possible considerations for community benefits programs related to offshore wind development.	Community benefits must be understood as direct, long-term, locally-held economic value, not short-term outreach or generalized provincial benefit statements.
	
	Because the first fixed-bottom offshore wind parcel is being identified in Sydney Bight, and because the land, waters, and workforce affected are in Cape Breton, community benefits must be primarily anchored in Cape Breton rather than concentrated in Halifax or external corporate centers.
	
	This is especially important in light of recent CBC reporting that developers working in Cape Breton believe large-scale subsidies may not be required for offshore wind in Nova Scotia due to the strength of the resource and favorable market conditions. This means there is room for real community benefit — not symbolic gestures.
	
	Principles for Community Benefits
	1. Local First. Benefits must be geographically tied to where the development occurs. Cape Breton must be the first recipient of economic, training, and employment benefits associated with Sydney Bight development.
	2. Binding, Not Aspirational. Community benefit commitments must be contractual, enforceable, and included as licensing conditions, not future possibilities.
	3. Equity Through Participation, Not Bypass. Community benefits must be co-developed with:
	• Mi'kmaq of Nova Scotia (rights-based stewardship & ownership pathways)
	• African Nova Scotian and African Descent communities
	• Cape Breton labour unions, trades, and workforce networks
	• Local municipalities and development authorities
	
	Not only provincial or centralized organizations.
	
	Direct Community Benefit Mechanisms (Recommended)
	• Cape Breton Offshore Wind Workforce Training Fund. Dedicated training seats and apprenticeships based at NSCC Marconi Campus, with guaranteed hiring pathways into construction and operations.
	• Local Supply Chain Development Fund. Targeted investment in Cape Breton marine, fabrication, construction, logistics, and service businesses to build permanent industry capacity.
	• Community Equity Participation. A mechanism for local and Mi'kmaq equity ownership shares in project revenue — even if modest — to ensure benefits are continuous over 25+ years, not temporary.
	• Harbour Infrastructure Benefit Reinvestment
	• A share of project revenues should be reinvested into:
	  ○ Port of Sydney heavy-lift and laydown expansion,
	  ○ Marine safety and search-and-rescue capacity,

	○ Coastal community climate adaptation planning. These mechanisms ensure that community benefits build lasting prosperity, rather than only short-term project spending. Closing Position Offshore wind in Cape Breton is viable. That means the community benefits must also be meaningful and permanent. If the energy is being developed in Sydney Bight, then the benefits must stay in Cape Breton. Community benefit must mean community transformation — not community displacement.
The CNSOER welcomes your suggestions and feedback on possible terms and conditions for the draft Submerged Land Licence.	The Submerged Land Licence (SLL) must not function as a permission slip. It must function as a performance contract. Because the first fixed-bottom offshore wind parcel is being identified in Sydney Bight, and because offshore wind in Cape Breton has now been publicly reported (CBC, 2023) to be economically viable without major subsidy, the SLL must ensure that: • Benefits remain in Cape Breton • Development proceeds on schedule • Port and supply chain capacity are built in Sydney • Existing ocean users are not displaced To achieve this, the following must be included as binding terms and conditions of any Submerged Land Licence. 1. Mandatory Sydney Port Staging Requirement All marshalling, heavy-lift staging, and turbine assembly for projects in Sydney Bight must occur at the Port of Sydney / Atlantic Canada Bulk Terminal. This is based on conclusive evidence from the Net Zero Atlantic Port Readiness Study, which ranked Sydney #1 for offshore wind marshalling feasibility. If development is in Sydney Bight, the build must be staged in Sydney. This must be a legal requirement — not a scoring preference. 2. Use-It-or-Lose-It Development Milestones To prevent speculative parcel holding: • Construction must begin within 5 years of licence issuance. • Failure to meet milestones triggers automatic reversion of the parcel — no discretionary extensions. This ensures real builders win — not land bankers. 3. Binding Community and Equity Benefit Agreements Community Benefits cannot be voluntary, charitable, or symbolic. The SLL must require: • A legally enforceable Community Benefit Agreement (CBA) • Developed with: • Mi’kmaq of Nova Scotia • African Nova Scotian and African Descent communities

	• Cape Breton municipalities and labour organizations
	• The CBA must include funding allocations, hiring targets, training seats, and revenue-sharing where feasible, with public reporting.
	
	If benefits do not reach Cape Breton, the licence must be breachable.
	
	4. Cape Breton Workforce and Supply Chain Requirement
	
	A general "Nova Scotia workforce preference" is not sufficient.
	
	The SLL must require:
	• Cape Breton-based workforce training programs based at NSCC Marconi Campus,
	• Local fabrication, marine services, and construction contracting prioritized in procurement, and
	• Annual reporting of:
	  ○ Cape Breton hires,
	  ○ Cape Breton contracts awarded,
	  ○ Wage levels and apprenticeship conversions.
	
	This is consistent with Accord Act equity principles — but makes them enforceable.
	
	5. Fisheries Coexistence and Continuity Conditions
	
	Coexistence must mean continuity — not displacement.
	
	The SLL must require:
	• Co-designed corridor routing with fishing fleets and Mi'kmaq harvesters,
	• Advance compensation agreements (not reactive claims),
	• Joint monitoring with seafood industry representation.
	
	The right to fish must remain intact and protected.
	
	6. Licence Duration and Environmental Accountability
	
	35 years is acceptable only if:
	• Annual environmental performance monitoring is required,
	• Adaptive mitigation authority is assigned jointly to CNSOER and Mi'kmaq oversight bodies,
	• Suspension authority is retained if ecosystem harm occurs.
	
	Closing Position
	
	The Submerged Land Licence must ensure that offshore wind in Sydney Bight:
	• Creates Cape Breton jobs
	• Builds Cape Breton industrial capacity
	• Strengthens Mi'kmaq and African Nova Scotian participation
	• Protects fishing livelihoods
	• And is actually built — not delayed
	
	If the energy is being developed in Sydney Bight, then the economic benefit, port investment, workforce development, equity participation, and community prosperity must remain in Cape Breton.

The CNSOER welcomes your	A Participant Funding Program must ensure that communities directly affected by offshore wind development have the resources to engage meaningfully,

suggestions and feedback on considerations for a Participant Funding Program.	continuously, and with actual decision-making power. Without adequate funding, engagement becomes a procedural formality rather than a legitimate collaborative process. This is particularly critical for Cape Breton communities, Mi'kmaq rights-holders, African Nova Scotian and African Descent communities, and commercial fishing and seafood sector organizations whose livelihoods and cultural ties to the Sydney Bight are longstanding and ongoing. Key Requirements for the Participant Funding Program 1. Local-First Eligibility. The program must prioritize: • Mi'kmaq communities and governance organizations • Cape Breton municipal and community associations • Cape Breton labour, trades, and workforce development groups • Cape Breton fisheries organizations and marine harvesters • African Nova Scotian communities in Cape Breton Communities in the region of development must be funded first. Engagement must not be centralized in Halifax. 2. Full Cost Coverage. Funding must cover: • Staff time (not just travel and hotels) • Technical expertise (legal, engineering, marine science, financial review) • Community-led consultation and information sessions • Participation in regulatory and licensing processes • Translation and culturally relevant engagement formats If funding only covers travel and meeting attendance, it is performative — not meaningful. 3. Long-Term Structure (Not One-Time Grants). Engagement does not end after Call for Bids or licence issuance. Participation funding must continue across: • Marine spatial planning • Construction • Operations • Monitoring and coexistence oversight • Decommissioning planning Communities must be resourced for the duration of the licence (minimum 35 years). 4. Funding Must Not Be Controlled by Developers. Funding must be administered independently and transparently by CNSOER (or joint governance with Mi'kmaq), not by project proponents. Communities must not be placed in the position of having to ask developers for resources to challenge, negotiate, or critique developer plans. Rationale Recent CBC reporting indicated that offshore wind in Cape Breton may be economically viable without large-scale subsidy, due to the strength of the wind resource and export potential. This means the industry is not financially fragile — and there is room for real and meaningful community participation funding.

	Participation funding is not a “nice to have.” It is a requirement for legitimacy, procedural fairness, and treaty recognition. Closing Position The Participant Funding Program must empower the communities who are closest to the water — not the organizations farthest from it. If offshore wind is to be developed in Sydney Bight, then the capacity to understand, influence, and benefit from that development must reside in Cape Breton.
The CNSOER welcomes any additional feedback and comments.	The Strategic Direction letter establishes the early development of offshore wind in Sydney Bight. However, the regulatory framework and planning process will only succeed if government decisions are aligned with the actual infrastructure and logistical capabilities required to build offshore wind at scale. There is only one location in Atlantic Canada that currently meets those requirements: Sydney Harbour — specifically the Atlantic Canada Bulk Terminal and the Novaporte development footprint. This is not a political argument. It is an infrastructure, geography, feasibility, and cost logic reality. Why Sydney Must Be the Anchor for Offshore Wind Development 1. Deep-Water Access & Heavy-Lift Capacity The Net Zero Atlantic Offshore Wind Port Readiness Study evaluated 10 ports. It concluded, clearly and unequivocally: “Atlantic Canada Bulk Terminal in Sydney offers the strongest marshalling, laydown, and deep-water heavy-lift capacity among the ten Atlantic ports assessed.” Sydney ranked #1 — not tied, not marginal — first. 2. Protected, Wide-Access Harbour Geometry. Sydney Harbour is one of the only ports on the East Coast that can receive: • Heavy-lift installation vessels • Wind turbine transport ships • Out-of-gauge component barges without dredging, breakwater reconstruction, or navigation constraint. 3. Available Industrial Land The Bulk Terminal + Novaporte development corridor offers immediate, contiguous, scalable laydown space — a requirement for turbine assembly and staging. 4. Rail and Intermodal Connectivity. Sydney is the only Atlantic Canadian location positioned to support: • Large component delivery by sea, • Workforce access by road, • And eventual hydrogen/ammonia export by rail. 5. Economic Viability Without Major Subsidies. Recent CBC reporting confirms that offshore wind in Cape Breton may be commercially viable without the type of subsidies required in Europe, due to: • Superior wind resource, • Export market alignment, and

	• Proximity to deep-water port infrastructure. This means the business case is already strong — but it only materializes if investment is directed to Sydney. Regulatory Alignment Required If Sydney Bight is the first development area, then Sydney must be the first investment area. The regulatory process must make that explicit. This requires: • Port alignment as a licence condition • Cape Breton workforce and supply chain obligations • Local-first community benefit requirements • Use-it-or-lose-it development milestone enforcement • Reinvestment of fee revenue into Sydney harbour capacity and training Otherwise, government will create: • A wind project without the infrastructure to build it, • A port readiness gap that increases cost and delays, • And a development that extracts value but does not return it to the region bearing its impacts. Closing Statement Sydney is not “a suitable option.” Sydney is the enabling condition for offshore wind in Nova Scotia. If offshore wind will be built in Sydney Bight, then: • The staging will be in Sydney, • The jobs must be in Sydney, • The supply chain must form in Sydney, • The export corridor must run through Sydney, • And the economic benefits must stay in Cape Breton. Anything else would be a structural misalignment that undermines the Call for Bids, the Strategic Direction letter, and the credibility of the offshore wind regime.

Name	Thomas Ashford (submission 3)
Organization	N/A
Respondent Type	Other Interested Stakeholder
The CNSOER welcomes your suggestions and feedback on the government identified Wind Energy Areas (Sydney Bight, Middle Bank, and French Bank) and the factors the CNSOER will use to design parcels	Sydney Bight offers the strongest overall case for early-phase offshore wind development in Nova Scotia. Its proximity to Sydney Harbour’s existing deep-water infrastructure—including Novaporte and the Atlantic Canada Bulk Terminal (16.5 m draft, 500 + acres industrial land)—makes it the only location capable of supporting full-scale turbine marshalling, hydrogen production, and export operations without major new port construction. The presence of Membertou First Nation’s equity in Novaporte provides a proven Mi’kmaq partnership model that aligns directly with Canada’s reconciliation and inclusive growth objectives. From a technical and economic standpoint, Sydney Bight minimizes transmission distance, leverages existing onshore grid and transportation corridors (Trunk 4),

within those Wind Energy Areas.	and enables rapid project deployment at lower cost. It is uniquely positioned to attract large-scale global investment and to anchor Nova Scotia's clean-energy export economy. Recommendation: CNSOER should prioritize at least one 500 MW fixed-bottom parcel in Sydney Bight, designed to take advantage of nearby infrastructure and accommodate future expansion. Sydney Harbour should be explicitly recognized as Nova Scotia's offshore wind marshalling, hydrogen, and export hub — a national asset capable of delivering enduring economic, environmental, and Indigenous benefits.
The CNSOER welcomes your suggestions and feedback on bid submission criteria to be used as part of the Call for Bids process, including specific criteria, criteria weighting, scoring metrics, and evaluation methods.	Sydney provides the most complete foundation for successful offshore wind projects under every evaluation criterion. Technical Expertise and Project Delivery Capacity Projects anchored at Sydney Harbour, including Novaporte and the Atlantic Canada Bulk Terminal, can achieve rapid delivery and global supply-chain integration. The existing port depth of 16.5 metres, 500 plus acres of industrial land, and year-round ice-free access make Sydney the only site in Nova Scotia that meets global offshore-wind staging standards. Developers basing projects here will demonstrate strong feasibility, reduced logistics risk, and lower capital cost. Financial Strength and Investment Readiness Sydney is uniquely positioned to attract large-scale global investment. Its deep-water infrastructure and industrial zoning de-risk project execution, making it the most financeable and scalable location for multi-gigawatt offshore wind and hydrogen development. Engagement and Community Benefits The Membertou First Nation–Novaporte partnership already demonstrates a proven, inclusive ownership model consistent with federal reconciliation and equity-participation objectives. Sydney's project base can serve as a national model for Indigenous equity and workforce inclusion. Supply Chain and Workforce Development Sydney's existing port facilities, rail and highway connections, and proximity to NSCC Marconi and Cape Breton University make it the logical site for establishing Canada's Atlantic offshore-wind supply chain and workforce training programs for marine, hydrogen, and energy operations. Environmental Sustainability and Co-existence Sydney Bight offers technically suitable zones close to existing industrial and transmission corridors, reducing new seabed disturbance and minimizing overlap with fishing activity. Concentrating development here supports both marine protection and efficient clean-energy export. Summary Sydney is Canada's best-prepared and most investment-ready location for offshore wind, capable of meeting every evaluation criterion while delivering lasting economic, environmental, and Indigenous benefits.
The CNSOER welcomes your suggestions and feedback on coexistence.	Submission – Coexistence Sydney Bight offers the most practical and balanced opportunity for coexistence between offshore wind development and existing ocean users in Atlantic Canada. The area lies adjacent to an already industrialized coastline anchored by Sydney Harbour, Novaporte, and the Atlantic Canada Bulk Terminal. Concentrating offshore wind activity in this zone minimizes overlap with sensitive coastal habitats

	and heavily fished areas, while taking advantage of existing shipping, port, and transmission corridors. Sydney's established marine operations, deep-water port, and navigational infrastructure allow new offshore wind activity to integrate safely with existing maritime traffic. Locating initial development near Sydney Bight will also help protect the broader coastline by limiting the need for multiple new industrial corridors elsewhere. By focusing investment and activity in Sydney, governments can ensure a model of coexistence that respects fishing, navigation, and Indigenous rights, while supporting responsible offshore wind growth and Canada's clean-energy transition.
The CNSOER welcomes your suggestions and feedback on behalf of governments on considerations for fisheries' compensation.	Sydney Bight offers an ideal setting to establish a fair, transparent, and collaborative model for fisheries' coexistence and compensation. Its location near existing industrial infrastructure in Sydney Harbour allows offshore wind activity to be concentrated in areas already accustomed to marine traffic and port operations, thereby reducing direct interference with active fishing zones. A standardized, province-wide fisheries' compensation framework should: 1. Prioritize early engagement and mapping of traditional fishing grounds with local harvesters and Indigenous communities; 2. Establish clear, pre-agreed valuation methods for potential loss of access, gear damage, or catch disruption; 3. Create a joint oversight committee with representatives from the fishing sector, Mi'kmaq communities, developers, and regulators; and 4. Require developers operating near Sydney Bight to fund localized benefit and offset programs supporting fisheries innovation, cold-storage capacity, and harbour improvements in Cape Breton. Concentrating early offshore wind projects in Sydney Bight—where the overlap with high-intensity fishing is comparatively limited and logistical infrastructure already exists—will allow Nova Scotia to develop a fair and replicable fisheries' compensation model that respects marine livelihoods while enabling responsible offshore wind growth.
The CNSOER welcomes your suggestions and feedback on the fees for bid submissions and successful bidders.	Establishing fair, transparent, and competitive bid fees is essential to attract the scale of global investment required for offshore wind success in Nova Scotia. While the proposed $250,000 nonrefundable fee and $750,000 licence fee are reasonable for experienced international developers, these funds should be structured to encourage early investment in key infrastructure regions—particularly Sydney Harbour and the Sydney Bight Wind Energy Area. Sydney is the only location in Nova Scotia with deep-water port access, hydrogen production potential, and Indigenous equity participation through Membertou First Nation. Directing a portion of collected fees toward infrastructure readiness, workforce training, and coexistence programs in high-potential areas like Sydney would ensure the fee system actively supports the province's long-term clean-energy and reconciliation goals. In summary, bid fees should reinforce—not restrict—investment in Sydney, where Canada can deliver the greatest return through efficient offshore wind deployment, hydrogen export capability, and sustainable economic growth.
The CNSOER welcomes your suggestions and feedback on	The Sydney region fully reflects and advances the principles outlined in the Accord Acts. Full and Fair Participation:

considerations and adherence to the principles listed in the Accord Acts.	Sydney Harbour, through Novaporte and the Atlantic Canada Bulk Terminal, provides the infrastructure and industrial scale to ensure Canadian companies and workers have meaningful access to the offshore renewable supply chain. Its proximity to the Sydney Bight Wind Energy Area ensures that Canadian labour, fabricators, logistics firms, and service providers can participate directly in all project phases—from turbine staging to hydrogen production and export. Participation of Under-Represented Groups: The Membertou First Nation–Novaporte partnership demonstrates an inclusive ownership and procurement model that embodies reconciliation and equitable participation. This framework ensures that Mi'kmaq communities, African Nova Scotian workers, and local training institutions such as NSCC Marconi and Cape Breton University are actively engaged in workforce development and long-term employment. Consideration of Fishing Activities: Sydney Bight provides the opportunity to balance offshore wind with existing marine uses. Concentrating development near Sydney Harbour—an established industrial port—limits disruption to fishing zones while supporting coexistence and transparent fisheries' compensation processes. In summary, Sydney's infrastructure, partnerships, and social model deliver a real-world example of how the Accord Acts' principles can translate into measurable Canadian participation, equitable opportunity, and responsible coexistence within the offshore renewable energy sector.
The CNSOER welcomes your suggestions and feedback on possible considerations for community benefits programs related to offshore wind development.	Sydney offers a unique opportunity to deliver lasting, province-wide community benefits through offshore wind development. The region's Indigenous-led, infrastructure-ready model—anchored by the Membertou First Nation–Novaporte partnership—already demonstrates how clean-energy growth can advance reconciliation, employment, and local prosperity. A Sydney-centred community-benefits framework should: 1. Direct a portion of project revenues and bid fees toward local workforce training, scholarships, and marine-energy programs at NSCC Marconi and Cape Breton University. 2. Fund community infrastructure such as harbour upgrades, housing, and transportation improvements linked to offshore-wind growth. 3. Support Mi'kmaq and coastal communities in establishing equity stakes, supplier networks, and fisheries coexistence initiatives. Because Sydney is already positioned as Nova Scotia's deep-water energy and logistics hub, concentrating investment here ensures that community-benefit dollars produce measurable, lasting impacts—creating high-skill jobs, supporting inclusive education, and strengthening Cape Breton's clean-energy economy for generations.
The CNSOER welcomes your suggestions and feedback on possible terms and conditions for the draft Submerged Land Licence.	Sydney's infrastructure, partnerships, and readiness make it the ideal anchor point for Nova Scotia's first generation of offshore wind licences. The Submerged Land Licence framework should include clear terms that both encourage responsible investment and reward projects that create tangible benefits for Nova Scotia and Canada. Recommended conditions include: • Infrastructure Integration: Licences should recognize and prioritize projects that leverage existing deep-water port and industrial assets, such as Sydney Harbour, Novaporte, and the Atlantic Canada Bulk Terminal, to reduce environmental impact and accelerate project readiness.

	• Inclusive Participation: Licence holders should be required to demonstrate meaningful partnership with Membertou First Nation and other Mi'kmaq communities, consistent with the Accord Act principles and reconciliation goals. • Community Benefits: Projects should commit to local employment, training, and infrastructure investment in Cape Breton, particularly within the clean-energy and hydrogen sectors. • Fisheries and Coexistence: Terms should require proactive coexistence plans developed with local harvesters and Indigenous fishers, ensuring fair access and transparent compensation. • Licence Duration and Milestones: A minimum 35-year term with enforceable milestones for construction, operation, and community-benefit reporting will provide investor confidence and ensure accountability. Sydney's readiness ensures these terms can be met immediately, positioning Nova Scotia as a national leader in offshore wind and clean-energy development.
The CNSOER welcomes your suggestions and feedback on considerations for a Participant Funding Program.	The Participant Funding Program should be designed to ensure that local and Indigenous communities have the capacity to meaningfully participate in all stages of offshore wind planning and development. In Cape Breton, this means ensuring funding is accessible to the Mi'kmaq of Nova Scotia (particularly Membertou First Nation), the fishing community, and local residents impacted by or contributing to projects near Sydney Bight. Key recommendations: 1. Dedicated Indigenous Capacity Funding – Provide early, direct support for Mi'kmaq governments and organizations to engage in technical reviews, traditional knowledge studies, and equity participation planning. 2. Local Community Participation Support – Enable municipalities, non-profits, and academic partners in the Sydney region to access funding for community-benefit design, workforce training, and coexistence planning. 3. Transparency and Accessibility – Establish clear eligibility criteria and public reporting on funding allocations to ensure fair access across Cape Breton communities. 4. Infrastructure-Linked Research Funding – Support studies at NSCC Marconi and Cape Breton University focused on port readiness, marine safety, hydrogen production, and offshore-wind logistics. By directing early participant funding to Sydney and surrounding Mi'kmaq and coastal communities, governments can ensure that engagement is inclusive, informed, and directly connected to Canada's most promising offshore wind and clean-energy hub.
The CNSOER welcomes any additional feedback and comments.	Nova Scotia's success in offshore wind will depend on its ability to attract and sustain large-scale, long-term investment. To achieve this, governments should formally recognize Sydney Harbour and the Sydney Bight Wind Energy Area as the centrepiece of Atlantic Canada's offshore wind, hydrogen, and clean-energy strategy. Sydney already meets every strategic criterion outlined in the governments' direction: • Deep-water, ice-free port access (16.5 metres) with over 500 acres of industrial land at Novaporte and the Atlantic Canada Bulk Terminal. • Proven Mi'kmaq equity participation through Membertou First Nation, offering a national model for Indigenous ownership, workforce inclusion, and reconciliation in clean-energy development.

	• Proximity to grid, transmission, and transportation infrastructure, enabling efficient, low-impact project delivery. • Readiness to support hydrogen and ammonia production, marine fabrication, and offshore logistics — ensuring Nova Scotia's projects can compete globally. Governments should also ensure the broader regulatory process is predictable and investment-oriented. This includes: • Streamlined federal–provincial permitting. • Coordination between CNSOER, Natural Resources Canada, and provincial departments on transmission planning and export readiness. • Integration of community-benefit, training, and coexistence measures directly into early project approvals. Sydney represents the single most cost-effective and inclusive location to demonstrate Canada's global leadership in offshore wind and clean-energy exports. Recognizing and investing in Sydney now will deliver enduring national, economic, and environmental benefits for generations.

Name	Abbie Branchflower
Organization	Small Change Fund
Respondent Type	Other Interested Stakeholder
The CNSOER welcomes your suggestions and feedback on the government identified Wind Energy Areas (Sydney Bight, Middle Bank, and French Bank) and the factors the CNSOER will use to design parcels within those Wind Energy Areas.	The selection of Sydney Bight, Middle Bank and French Bank as the first three Wind Energy Areas is logical given the potential generating capacity of each parcel and the proximity to land for industry activities. The rationale for not including Sable Island Bank in the initial Wind Energy Areas is sound given the distance from the main shores of Nova Scotia. Additionally, Sable Island Bank is part of a critically important ecosystem, as well as an area with incredible significance to Nova Scotia's marine and cultural heritage. My recommendation would be to delay assigning parcels within the Sable Island Bank area until there is a better understanding of the environmental impacts of the offshore wind infrastructure and what mitigation may be necessary. The factors that the CNSOER will use to design parcels within the Wind Energy areas are logical and comprehensive.
The CNSOER welcomes your suggestions and feedback on bid submission criteria to be used as part of the Call for Bids process, including specific criteria, criteria weighting, scoring metrics, and evaluation methods.	The energy transition, including developing the offshore wind industry, is a critical part of addressing the current climate crisis. Therefore, prioritising bids that are both well-informed and solidly financed is important. Past offshore wind projects in Nova Scotia, such as OpenHydro, have failed before generating any power. Not only is this a waste of resources and time that we cannot afford in the current climate crisis, but the environmental impact of failed turbines (both destroyed and abandoned) is important to consider. We must not make the same mistakes with this new opportunity to embrace offshore wind. Equally important is that bids with well-informed biodiversity plans – including conservation and mitigation strategies – and inclusive engagement plans are prioritised. Meaningful engagement with Indigenous communities at all stages is critical.
The CNSOER welcomes your suggestions and	While offshore wind in Atlantic Canada can play a critical role in the energy transition, and therefore the fight against the climate crisis, it is vital to ensure that the manner in which this industry is developed coexists with existing and future

feedback on coexistence.	ocean users. The "Offshore Wind R&D Priorities Roadmap," published August 11, 2025, identifies many of these users, along with important considerations for moving forward with this project. When developing this industry, it is critical that commitments to consult with Indigenous peoples are honoured and that any impacts on treaty rights are fully considered and expressly communicated. It is also important to consider the impact on the livelihoods of fishers – many families in Nova Scotia depend on the fishing industry for their survival. In terms of biodiversity, the "Offshore Wind R&D Priorities Roadmap" establishes the importance of clear, transparent, consistent and year-round data collection, along with the need to continually collect data on environmental impacts as offshore wind plans progress. Many species utilise the Scotian Shelf, including several at-risk populations, and even subtle changes to temperature, salinity and ocean currents can disrupt the delicate balance of the ecosystem. Furthermore, the impacts of subsea cables must also be considered, along with the effects of construction and increased traffic in the water. Mitigation measures will be critical to ensure as little damage to species and the environment as possible.
The CNSOER welcomes your suggestions and feedback on considerations and adherence to the principles listed in the Accord Acts.	An aim to increase participation of under-represented groups is important for promoting equity in this process. As previously mentioned, it is important to consider the effects on fishing activities to ensure that fishers, both Indigenous and non-Indigenous, are not disadvantaged by this new industry. A just energy transition leaves no one behind.
The CNSOER welcomes your suggestions and feedback on possible considerations for community benefits programs related to offshore wind development.	Whenever possible, sourcing and construction of materials should remain local to ensure that local communities benefit from economic opportunities and to reduce environmental costs of transporting resources.
The CNSOER welcomes your suggestions and feedback on possible terms and conditions for the draft Submerged Land Licence.	Ongoing monitoring and transparent reporting are critical to ensure environmental and adverse economic impacts are minimal and mitigated swiftly. It is important to maintain consistent monitoring to capture changes related to both the progression of this project as well as related to ongoing climate change. Additionally, it is essential that coexistence with existing ocean users and uses is explicitly outlined in the terms and conditions for the draft Submerged Land Licence.
The CNSOER welcomes your suggestions and feedback on considerations for a Participant Funding Program.	A Participant Funding Program will help ensure equitable access and minimise disadvantages to less privileged stakeholders.
The CNSOER welcomes any	Thank you for the opportunity to provide feedback on the Offshore Wind call for Information. This is a very exciting opportunity for Nova Scotia to advance our own

additional feedback and comments.	economy and to play a role in a just energy transition for Canada, as well as in establishing climate resilience. I have included these comments both on my behalf as an interested resident of the province, and in my capacity as a Project and Communications Manager with national charity Small Change Fund. Small Change Fund acts as a catalyst for individuals and grassroots organizations to improve the environment, reduce poverty and promote reconciliation efforts by working with Indigenous Peoples to support the protection of their lands, waters and communities. I have a few additional comments I would like to include in this submission: • I would like to offer support for the statement in the "Offshore Wind R&D Priorities Roadmap" that "Meaningful Indigenous involvement in all stages of R&D is necessary for a sustainable and inclusive offshore wind industry." Furthermore, I wholeheartedly agree that it is important to embrace the concepts of Etuaptmumk (two-eyed seeing) and that this will inform critical adaptive management. • The importance of adaptive management – taking into account changing climate impacts and conditions as the project progresses – cannot be overstated. I strongly support the second Objective of Priority 20 in the "Offshore Wind R&D Priorities Roadmap, "Continuously monitor the indirect ecological impacts of offshore wind development and assess the effectiveness of implemented mitigation efforts." • I support data being publicly available whenever possible, as well as centralised and clear for the use of all stakeholders. This data should be standardised, with clear baselines and definitions, to ensure comparability across study areas and stakeholders. • The offshore wind industry is an exciting opportunity to decarbonise our provincial electricity consumption. • Public participation and education will be crucial. There is a lot of misinformation and mistrust about this new industry and it will be vital to get the public on board through engagement, outreach and learning opportunities. • As indicated in Priority 19 of the "Offshore Wind R&D Priorities Roadmap": "Equity, diversity, inclusivity and accessibility-focussed research is critical to understand [impacts] across different communities and groups."

Name	Jenn Burt
Organization	Nature United
Respondent Type	Other Interested Stakeholder
Attach your comments.	Click to access file.

Name	Elianny Dominguez-Tejo
Organization	Ocean Frontier Institute
Respondent Type	Other Interested Stakeholder
The CNSOER welcomes your suggestions and feedback on bid submission criteria to be used	The following recommendations are grounded in international best practice and intended to help Canada's Atlantic offshore wind regulatory framework achieve high environmental standards while enabling renewable energy growth. They incorporate principles such as net-positive impact, cumulative assessments, adaptive management, and stakeholder inclusivity which are key elements found in leading planning and guidance documents for the industry.

as part of the Call for Bids process, including specific criteria, criteria weighting, scoring metrics, and evaluation methods.	1. Adopt Net-Positive Biodiversity Criteria Bid evaluation should include minimum net-positive biodiversity criteria requiring proponents to demonstrate measurable improvements to biodiversity outcomes over the project lifecycle, aligned with internationally recognized guidance such as the UN Global Compact. This shifts assessment beyond impact minimization toward long-term ecological benefit and accountability. 2. Require Early Spatial Sensitivity Mapping Early-stage spatial sensitivity mapping should be required during planning and leasing to identify lower-impact areas and avoid sensitive habitats before bids are finalized. Using integrated environmental and social sensitivity tools improves site selection, reduces downstream conflict, and strengthens regulatory certainty. 3. Mandatory Cumulative Impact Assessments Bid submissions should include regional-scale cumulative impact assessments that consider offshore wind alongside other maritime activities. Applying risk-based frameworks enables regulators to evaluate combined pressures on ecosystems and avoid incremental degradation across multiple projects. 4. Standardized Monitoring Protocols Projects should be assessed against standardized, adaptive monitoring requirements that cover key taxa and habitats throughout construction and operation. Consistent protocols enable comparability across projects and support evidence-based regulatory oversight. 5. Ecosystem-Based Design and Nature-Inclusive Solutions Bid criteria should reward ecosystem-based design approaches that integrate biodiversity considerations into project infrastructure, such as nature-inclusive scour protection or habitat-enhancing structures. These measures can improve ecosystem function while maintaining engineering performance. 6. Governance & Adaptive Management Strong governance provisions should require developers to update mitigation and management measures in response to monitoring results and emerging science. Adaptive management ensures that regulatory approvals remain effective under changing environmental conditions. 7. Multi-Sector Stakeholder Engagement Bidders should demonstrate plans for meaningful, ongoing engagement with Indigenous communities, fishing interests, scientists, industry, and conservation organizations. Early and sustained collaboration improves project design, legitimacy, and long-term outcomes. 8. Mitigation Hierarchy Enforcement The bid process should clearly enforce the mitigation hierarchy across all project phases, requiring proponents to demonstrate how impacts will be avoided and minimized before restoration or compensation is considered. Evidence-based application strengthens environmental integrity. 9. Marine Protected Area Alignment Offshore wind proposals should be evaluated for alignment with existing and proposed Marine Protected Areas and other conservation measures. This ensures development avoids core biodiversity areas and supports broader marine conservation objectives. 10. Reporting & Transparency Requirements

	Proponents should commit to publicly accessible reporting on biodiversity impacts, mitigation performance, and monitoring results. Transparency supports regulatory learning, public trust, and continuous improvement across the offshore wind sector. 11. Robust Multi-Taxa Monitoring Beyond baseline requirements, bids should demonstrate capacity for comprehensive, multi-taxa monitoring before, during, and after construction. This strengthens understanding of ecosystem responses and informs adaptive management decisions. 12. Species-Specific Risk Assessment Early, species-specific risk assessments should be required for sensitive and protected species relevant to Atlantic Canada, including marine mammals, seabirds, and fish. Targeted analysis enables more effective mitigation and siting decisions. 13. Integrated Marine Spatial Planning Bid evaluation should consider how projects align with broader marine spatial planning objectives, integrating biodiversity, social, and economic sensitivities. This supports efficient ocean use and reduces cumulative conflict. 14. Adaptive Management Triggers Permits should include clear, pre-defined triggers that require mitigation actions when monitoring thresholds are exceeded. This ensures adaptive management is operational rather than discretionary. 15. Biodiversity Compensation as a Last Resort Where residual impacts remain unavoidable, bids should clearly outline compensation or offset measures consistent with best practice, applied only after avoidance and minimization options are exhausted. 16. Climate and Biodiversity Integration Bid criteria should explicitly assess how projects deliver climate mitigation benefits while safeguarding biodiversity, encouraging solutions that maximize co-benefits and avoid unnecessary trade-offs. 17. Stakeholder Co-Design & Indigenous Engagement Projects should demonstrate how Indigenous knowledge and stakeholder input will inform siting, monitoring, and mitigation through co-design processes. This strengthens outcomes, supports reconciliation, and improves regulatory durability. References • UN Global Compact. Guidance on Net-Positive Biodiversity and Ocean-Based Renewable Energy. • The Biodiversity Consultancy. Integrated Environmental and Social Sensitivity Mapping for Offshore Wind. • International Union for Conservation of Nature (IUCN). Risk-Based Frameworks for Cumulative Impact Assessment. • NOAA Fisheries / BOEM. Regional Standards and Technical Guidance for Offshore Wind Environmental Monitoring. • International Marine Contractors Association (IMCA). Environmental Sustainability and Nature-Inclusive Design Guidance. • Seas At Risk. Offshore Wind and Marine Protected Area Alignment. • Tethys Knowledge Base. Best Practices for Multi-Taxa Monitoring in Offshore Wind Development.

	• Ocean Conservancy. Marine Spatial Planning and Sensitivity Mapping Guidance. • Australian Department of Climate Change, Energy, the Environment and Water (DCCEEW). Mitigation Hierarchy and Environmental Assessment Guidance for Offshore Wind.
Attach your comments.	Click to access file.

Name	Renée Fougère
Organization	Ecology Action Centre
Respondent Type	Other Interested Stakeholder
Attach your comments.	Click to access file.

Name	Shauna Kelly
Organization	Sierra Club Canada Foundation
Respondent Type	Other Interested Stakeholder
Attach your comments.	Click to access file.

Name	Pamela McKinnon
Organization	N/A
Respondent Type	Other Interested Stakeholder
The CNSOER welcomes your suggestions and feedback on considerations for a Participant Funding Program.	Meaningful public-interest participation in offshore wind regulatory processes depends on participants having adequate time, resources, and access to relevant information to provide informed and constructive input. As the CNSOER establishes a Participant Funding Program for future regulatory processes, including the offshore wind Call for Bids and associated lease decisions, several considerations may be important. Participant funding should be available sufficiently early to support preparation of substantive, evidence-based submissions at multiple stages, particularly in technically complex and emerging areas such as floating offshore wind, where there has not yet been technological convergence and project design, risk allocation, and cost drivers continue to evolve. In addition to participation in regulator-led meetings, the scope of eligible activities could recognize limited preparatory work that directly improves the quality of participation. Given that offshore wind development draws on evolving international experience, especially for floating technologies, modest flexibility to support targeted knowledge-gathering where clearly relevant to upcoming regulatory decisions may enhance the effectiveness of public participation. Program design that emphasizes proportionality, clarity, and predictability in timing and eligible costs would assist participants in planning their engagement and contribute to a more informed regulatory process. Consideration of these elements in the 2026 Participant Funding Program would support meaningful participation and assist the CNSOER in fulfilling its mandate to make well-grounded offshore wind regulatory decisions.

Name	Alex Miller
Organization	Nova Hibernia Consulting
Respondent Type	Other Interested Stakeholder
The CNSOER welcomes your suggestions and feedback on possible considerations for community benefits programs related to offshore wind development.	I have attached a report titled 'Community Benefits of Offshore Renewable Energy Projects: Insights for the Canada-Nova Scotia Offshore Area', which details my comments in full. I will post the Executive Summary here, but please see the enclosed report for the full details. Executive Summary Canada and Nova Scotia are at a critical juncture in the development of offshore renewable energy (ORE). As the development of offshore wind projects begins, Canada and Nova Scotia should ensure that local communities share in the economic, social, and environmental benefits. A robust community benefits framework is essential to ensure that these projects not only contribute to the province's clean energy goals but also drive inclusive economic growth and community resilience. This report outlines the key considerations for a benefit framework for Nova Scotia, focusing on four key areas: economic (job creation, local supply chains, and Indigenous partnerships), social (inclusive engagement and equitable benefit-sharing), environmental (emission reductions, ecosystem co-benefits, and climate resilience), and educational (workforce training and research collaborations). By embedding these benefits into ORE projects, Nova Scotia can deliver long-term prosperity, address regional disparities, and build community trust. Drawing lessons from Denmark's cooperative ownership model and Scotland's community benefit fund approach, the report highlights the importance of ensuring local engagement and transparent benefit-sharing. Denmark's requirement for community co-ownership and Scotland's commitment to ongoing community funds provide valuable, scalable models for the Canada-Nova Scotia offshore area. However, challenges like regulatory uncertainty, access to markets, grid capacity limitations, and early-stage infrastructure must be addressed to unlock the full potential of these models. The report concludes that for Nova Scotia to lead in sustainable and equitable energy development, community benefit obligations should be embedded in legal agreements such as terms and conditions of submerged land licenses. This will guarantee that community benefits are delivered consistently, ensure long-term accountability, and provide local communities a direct stake in the success of the province's renewable energy future. This approach will help foster broad-based support for ORE projects, ensuring that Nova Scotia's energy transition benefits all its residents.
The CNSOER welcomes your suggestions and feedback on possible terms and conditions for the draft Submerged Land Licence.	The attached report 'Community Benefits of Offshore Renewable Energy Projects: Insights for the Canada-Nova Scotia Offshore Area' includes commentary and recommendations on how to include community benefits in the terms and conditions of submerged land licenses.
Attach your comments.	Click to access file.

Name	Kostantina Northrup
Organization	East Coast Environmental Law
Respondent Type	Other Interested Stakeholder
Attach your comments.	Click to access file.

Name	Ian Stewart
Organization	University of King's College
Respondent Type	Other Interested Stakeholder

The CNSOER welcomes your suggestions and feedback on bid submission criteria to be used as part of the Call for Bids process, including specific criteria, criteria weighting, scoring metrics, and evaluation methods.	1. Technical Expertise and Project Delivery Capacity
	Nova Scotia is home to deep scientific capacities in both academic and non-academic (government) research communities deeply knowledgeable of the Scotian Shelf and coastal ecosystems. Sustainable outcomes of offshore wind will include robust scientific understanding of impacts, requiring investments in baseline studies and ongoing monitoring commitments to support adaptive management. Demonstrated willingness to work collaboratively with those communities to deliver sustainable outcomes should be part of successful bids (eg. MOUs in place or in process of being sought with NS research communities).
	
	2. Engagement
	Mi'mkaq organizations (eg. Confederacy of Mainland Mi'kmaw) are increasingly engaged in environmental management activities (eg. MEKS). Successful bids should indicate familiarity and capacity for engaging in learnings from such work to inform site planning and operation.
	
	3. Supply Chain and Workforce Development
	Research into other jurisdictions makes clear that without deliberate policy intervention, the economic benefits often "leak" to established foreign markets. Nova Scotia needs developers who understand the local context and are committed to building a domestic supply chain. This includes sourcing materials locally and investing in workforce training to replace the temporary boom of construction jobs with sustainable, long-term careers in operations and maintenance.
	
	• Risks of Exclusion: The United Kingdom's experience serves as a stark warning. Early projects saw significant economic leakage, with only 30% of capital expenditure remaining within the UK during the construction phase. Similarly, the US relied heavily on European expertise in its nascent stages, missing critical opportunities to build a domestic workforce. In Nova Scotia, ignoring local content requirements risks creating an industry that extracts resources without building local capacity or wealth.
	• Key Considerations:
	  ○ Developer must display understanding (or plan to gain understanding) of local context
	  ○ Application of risk minimization strategies (pre-defined/identified)
	  ○ Demonstrated experience (or commitment to gain experience) in supporting local supply chain development.
	  ○ Financial capacity to invest in local workforce employment and training
	
	3. Environmental Sustainability and Coexistence

	• Rationale: The "social license to operate" is as critical as any regulatory permit. Offshore wind development inevitably interacts with existing marine users, most notably Nova Scotia's lucrative and culturally significant fishing industry. Bid packages must require developers to propose concrete technical and spatial measures to minimize disruptions, such as specific turbine layouts or alternative gear provisions that permit integrated usage, and investments in “nature positive” infrastructure innovations currently being implemented internationally (eg. scour protection and cable mattress designs that foster benthic ecosystems supportive of fish and fish habitat. Furthermore, developers should demonstrate meaningful community engagement and benefit-sharing to ensure that coastal communities see tangible value rather than just disruption.
	• Risks of Exclusion: Neglecting social factors leads to costly opposition. In Spain, offshore wind projects stalled due to fierce resistance from local communities and the tourism sector over environmental and aesthetic concerns. In the North Sea, fishers protested the reduction of fishing grounds, citing economic displacement. For Nova Scotia, failing to mandate coexistence measures could lead to protracted conflicts with the fishing industry, jeopardizing project timelines and social cohesion.
	• Key Considerations that should be present in successful bids:
	  ○ Explicit plans for fisheries impact mitigation measures;
	  ○ Capacity for financial and employment opportunities for affected communities
	  ○ Demonstrated capacity for developing local supply chain integration
	  ○ Demonstrated experience in community engagement and consultation
	  ○ Knowledge and capacities for development of infrastructure designs supporting coexistence with diverse marine activities
	
	Finally, sustainability and coexistence goals can be achieved also by building on advances in data management practices. Notably:
	
	• Data management plan that includes the gathering, integration, and sharing to facilitate a collaborative approach without compromising the confidentiality needs of the proponents and the regulator.
	• Commitments to adhere to international standards that have been developed to support the integration of diverse types of oceanographic and biological data. In Canada these standards are stewarded by organizations like CIOOS and OTN. Adopting these as standard in offshore wind would make it possible to address bigger questions around the benefits and impacts of offshore wind, enable collaboration with academia and government, and position OSW proponents to leverage advances made in the broader ocean research community

The CNSOER welcomes your suggestions and feedback on coexistence.	Further to the previous box, successful bids should demonstrate capacity and willingness to integrate their project development with federal and regional marine spatial planning frameworks, and incorporates the concerns of communities, local industries, with particular focus on fish harvesting.
The CNSOER welcomes any additional feedback and comments.	Thanks for this opportunity to give feedback. The above remarks are the collective work of myself and colleagues at Dalhousie University: Brad Covey, Chief Data Science Officer of the Ocean Frontier Institute; Dr. Michelle Adams, Professor, School of Resource and Environmental Science; Max Westhead, Director, Marine Affairs Program.

Name	Gregor Wilson
Organization	Green Nova Scotia First
Respondent Type	Other Interested Stakeholder
The CNSOER welcomes your suggestions and feedback on the government identified Wind Energy Areas (Sydney Bight, Middle Bank, and French Bank) and the factors the CNSOER will use to design parcels within those Wind Energy Areas.	Germany has the most offshore wind capacity on earth. In late 2025, the German Chancellor, said governments need to "Go slow!" when considering wind projects, impacts, and viability. Canada needs more Marine Protected Areas. Canada should identify and protect 20% of our oceans, and the should include 20% of NS oceans before approving a single offshore wind project. As fish seeking cooler water migrate north, northeast due to climate change all three of these areas (Sydney, Middle, French) should become more important than ever for fish stocks. This needs to be understood better before approving offshore projects. Middle Bank is too close to land and Guysborough County. Keep offshore 25km away from land. French Bank is too close to the 100 Wild Islands and Eastern Shore Bird Island Conservation area.
The CNSOER welcomes your suggestions and feedback on bid submission criteria to be used as part of the Call for Bids process, including specific criteria, criteria weighting, scoring metrics, and evaluation methods.	Criteria needs to start with heavily weighing commercial fishing interests and conservation goals for the areas. After those goals can be met then wind industry can work in other areas.
The CNSOER welcomes your suggestions and feedback on coexistence.	Germany has the most offshore wind capacity on earth. In late 2025, the German Chancellor, said governments need to "Go slow!" when considering wind projects, impacts, and viability. If the NS govt and industry get it wrong, it could be too late to co-exist.
The CNSOER welcomes your suggestions and feedback on possible considerations for community benefits programs related to offshore wind development.	If huge wind projects are approved the government should create a long term fund like Norways Sovereign Wealth Fund.
The CNSOER welcomes your suggestions and feedback on	This should include significant funding for fisheries and conservation research.

considerations for a Participant Funding Program.	

Name	Shannon Wood
Organization	Net Zero Atlantic
Respondent Type	Other Interested Stakeholder
Attach your comments.	Click to access file.

Name	Requested to be kept confidential
Organization	Requested to be kept confidential
Respondent Type	Other Interested Stakeholder
The CNSOER welcomes your suggestions and feedback on the government identified Wind Energy Areas (Sydney Bight, Middle Bank, and French Bank) and the factors the CNSOER will use to design parcels within those Wind Energy Areas.	In addition to fixed-bottom and floating offshore wind, the wind energy areas should allow for the development of projects utilising hybrid substructures. These have emerged recently as a solution to intermediate water depths (60 - 120m), which are too deep for fixed-bottom foundations and economically challenging for floating foundations. A large proportion of the wind energy areas sit within this transitional zone between fixed and floating. For more information, see the blog post published here on this topic - https://ore.catapult.org.uk/resource-hub/blog/at-a-crosswind-could-hybrid-substructures-redefine-floating-offshore-wind-in-the-uk
The CNSOER welcomes your suggestions and feedback on bid submission criteria to be used as part of the Call for Bids process, including specific criteria, criteria weighting, scoring metrics, and evaluation methods.	Some project developers will have little experience of developing engagement plans and local community benefits plans that are inclusive of underrepresented and underserved groups. To support their involvement in the call for bids process, it is suggested that information / guidance is provided in this area, particularly in relation to what meaningful engagement means.
The CNSOER welcomes your suggestions and feedback on the fees for bid submissions and successful bidders.	A non-refundable fee just to submit a bid could put some potential bidders off, even though the proposed fee may not be considered expensive. Given that there is still a lot of uncertainty on other aspects of project development in Nova Scotia at present, including grid connection and revenue support, this proposed fee just adds to the risk for project developers. This will be particularly challenging for smaller project developers, including local developers who might be better placed to engage with communities and supply chains. We have seen no-bids in a number of European offshore wind auctions in recent years due to risks and uncertainty.

Name	Requested to be kept confidential
Organization	Requested to be kept confidential
Respondent Type	Other Interested Stakeholder
The CNSOER welcomes your suggestions and feedback on the government identified Wind Energy Areas (Sydney Bight, Middle Bank, and French Bank) and the factors the CNSOER will use to design parcels within those Wind Energy Areas.	Like any new industry, it makes sense to start slow, learn from others and grow. That doesn't happen in Nova Scotia. Nova Scotia is going to be the "offshore wind superpower" with up to 60 GW for Wind West. Like onshore wind projects, it comes at a cost to the environment. Everything has a carbon footprint so caution and care is required: right project, right amount, and right place. Like a modest offshore wind project to green our grid in the right location (not impacting fishing grounds), with affordability for rate payers in mind. Starting bids with 5 GW of offshore wind is overly ambitious—even ridiculous. The UK has been building offshore wind projects for over twenty five years. It is now building the largest offshore wind project Dogger Bank with a combined 3.6 GW, which could increase. Yet Nova Scotia is starting with 5 GW and the province has built 0 offshore wind turbines.
The CNSOER welcomes your suggestions and feedback on coexistence.	Once offshore wind turbines are built—the environmental damage is done. With warming oceans, it makes sense that fish and lobster etc will migrate to the cooler waters of Guysborough County and Cape Breton. It appears that even after consultation with Guysborough County Inshore Fisherman Association, the Nova Scotia offshore wind plan is still to build wind turbines very close to the French Bank near fertile fishing grounds. So much for meaningful consultation. Of course, it's "easier" for politicians to do this in Guysborough County— given the plan to make Guysborough County the onshore 'energy sacrifice zone' with hundreds of wind turbines for green hydrogen/ammonia export.
The CNSOER welcomes any additional feedback and comments.	Not sure how this fits in but it's hard to imagine how Nova Scotia rate payers get lower rates with offshore wind as it's expensive. Nova Scotia Powers's mandated rate of return for investors means rate payers are often on the hook for "upgrades"—some even for billion dollar companies like Michelin or for storms like Fiona. For offshore wind—who is on the hook for those infrastructure upgrades or for offshore storms that impact Nova Scotia Power's bottom line? How are rate payers impacted with offshore wind projects? The UK has lots of offshore wind and has some of the highest power costs. Can Nova Scotia rate payers afford this? Companies earn profits, the province earns revenue, there may be compensation for impacted fisheries and communities but what about compensation for rate payers?

Name	Requested to be kept confidential
Organization	Requested to be kept confidential
Respondent Type	Other Interested Stakeholder
To ensure our written feedback period is fair and transparent, we post comments we receive on our website and in a public 'What We Heard' report. However, comments of a	These areas make sense in terms of proximity to land to reduce subsea HV transmission costs.

confidential nature (e.g. Indigenous knowledge) will not be posted on our website or in the report. Please indicate your preference in the consent box below.	
The CNSOER welcomes your suggestions and feedback on bid submission criteria to be used as part of the Call for Bids process, including specific criteria, criteria weighting, scoring metrics, and evaluation methods.	These criteria are all very good. I would emphasize that project success will strongly hinge on economics and Nova Scotia's workforce can grow in parallel with successful execution. Local content can be increased as more projects go to construction, but the first projects may need considerable foreign content and supply chain to get off the ground.
The CNSOER welcomes your suggestions and feedback on coexistence.	Offshore wind will use a very small part of the overall offshore area and is proven in other countries to not be disruptive to fisheries. Development of offshore wind energy will support ports and economic development in rural Nova Scotia, which will also support fisheries. I see offshore wind as a net benefit.
The CNSOER welcomes your suggestions and feedback on behalf of governments on considerations for fisheries' compensation.	I do not have knowledge of the most lucrative fishing areas offshore Nova Scotia to know if the proposed areas intersect and are likely to impact harvesting. While I see the totality of offshore wind development as a benefit to fisheries, it may be reasonable to provide compensation to on a case by case basis. In general, I think it's likely the fishing and offshore wind industries can co-exist.
The CNSOER welcomes your suggestions and feedback on the fees for bid submissions and successful bidders.	I think this is reasonable. It will take a long time to develop offshore areas and proponents must have land reasonably secured before investing millions of dollars. However, the fee must be sufficient such that only real proponents are engaged.
The CNSOER welcomes your suggestions and feedback on considerations and adherence to the principles listed in the Accord Acts.	These are all reasonable, but application must be proportional and measured. Consideration for fishing activities must be given to likely impacts, not any possible impact. Full and fair opportunity for Canadian corporations and underrepresented groups should not impede project development or substantially increases costs. Canada, and in particular Nova Scotia, has a tendency to let perfection get in the way of progress. This needs to be changed.

The CNSOER welcomes your suggestions and feedback on possible considerations for community benefits programs related to offshore wind development.	The NS onshore wind industry provide a reasonable framework for community benefits. I foresee very little in the way of negative community impacts from offshore wind.
The CNSOER welcomes your suggestions and feedback on possible terms and conditions for the draft Submerged Land Licence.	No additional comment.
The CNSOER welcomes your suggestions and feedback on considerations for a Participant Funding Program.	Looks fine.
The CNSOER welcomes any additional feedback and comments.	Offshore wind is not a "new" industry. Risks are known to be minimal. I'd like to see a light-touch approach to regulation. Industry will need to have flexibility to make the offshore wind industry in NS a reality.

Kwilmu'kw Maw-klusuaqn Negotiation Office
Mi'kmaq Rights Initiative
Our Rights. Our Future.

75 Treaty Trail
Truro, NS B6L 1W3

Tel (902) 843 3880 **Fax** (902) 843 3882
Toll Free 1 888 803 3880
Email info@mikmaqrights.com
www.mikmaqrights.com

January 13, 2026

Colleen Fiske
Canada – Nova Scotia Offshore Energy Regulator
cfiske@cnsoer.ca

Ms. Fiske,

RE: Notification by the Canada-Nova Scotia Offshore Energy Regulator re. Offshore Wind Call for Information NS25-1R

I write in response to your letter dated October 17, 2025, and in follow-up to our meeting held on December 4, 2025, with respect to the above-noted initiative. We welcome the opportunity to establish open lines of communication and a positive working relationship with the CNSOER. Further, we acknowledge your offer of sharing our concerns with your counterparts within the federal Crown. In light of the fact that some of these concerns fall more squarely within the jurisdiction of Natural Resources Canada (NRCan), we have also copied them on this correspondence.

The Kwilmu'kw Maw-Klusuaqn (KMK) would like to reiterate comments made by Chief Sidney Peters, Co-Chair for the Assembly of Nova Scotia Mi'kmaw Chiefs, and our KMK Technical Staff at the Senate Standing Committee on Energy, the Environment and Natural Resources regarding Bill C-49: *An Act to amend the Canada–Newfoundland and Labrador Atlantic Accord Implementation Act and the Canada-Nova Scotia Offshore Petroleum Resources Accord Implementation Act and to make consequential amendments to other Acts*. In our Senate submissions, we flagged a systemic failure of the Bill to account for the duty to consult throughout the chain of "strategic planning" decisions leading to offshore wind developments. The legislation is structured as a long series of strategic planning decisions, moving through Ministerial directives to high-level principles, regulator recommendations, calls for bids and submerged land licences, culminating in authorizations to carry out work on an offshore renewable energy project. Each of these decisions either influences or limits subsequent decisions in the sequence. For instance, the call for bids specifies the terms and conditions which the eventual licences are subject to. Bill C-49 provided either no consultation, or inadequate consultation, at every one of these decision points, and we were assured repeatedly that these deficiencies would be remedied at the regulatory stage.

To be clear, offshore wind developments have the potential to impact the Mi'kmaq's asserted and established rights under section 35 of the *Constitution Act, 1982,* including established fishing rights. It is imperative that as projects are contemplated for the unceded waters of the Mi'kmaq,

the Crown fulfills its duty to consult with Rightsholders, and proponents involve communities with project developments from the outset.

Against this backdrop, we have a number of questions for you and/or NRCan regarding the offshore wind initiative:

- Could you explain why *any* strategic-level planning decisions regarding offshore wind are being made in advance of the necessary updates to the Memorandum of Understanding (MOU) between NRCan, Nova Scotia and the CNSOER on the Crown's duty to consult?
- Please identify how and when the Mi'kmaq of Nova Scotia will be given an opportunity for input into the adequacy and appropriateness of the proposed updates to the MoU?
- How will the current practice of delaying consultation until the authorization phase be updated to accord with the Supreme Court of Canada's direction that consultation is triggered by higher-level strategic planning decisions, including licensing decisions?
- Could you indicate how the Canada-Nova Scotia Offshore Renewable Energy Regulations will address the deficiencies in the Act regarding the Crown's duty to consult, as was committed to us following our submissions to the Senate on Bill C-49?
- We request an accounting of how the Canada-Nova Scotia Offshore Renewable Energy Regulations will satisfy s. 5 of Canada's *United Nations Declaration on the Rights of Indigenous Peoples Act* and s. 35 of the *Constitution Act, 1982*?
- We request information on how proponents will be informed of their roles and responsibilities in respect of the procedural aspects of consultation, particularly in light of the extensive role played by proponents in the regulatory scheme.
- We are seeking information regarding how the prequalification stage for wind developers will prioritize those proponents who have strong ties with the Mi'kmaq? Towards this end, we recommend prioritizing Mi'kmaq-owned companies, proponents with Mi'kmaq partnerships, and proponents who have strong working relationships with the Mi'kmaq, as demonstrated through Memoranda of Understanding, Impact Benefits Agreements and procurement commitments with the Assembly of Nova Scotia Mi'kmaw Chiefs and the respective individual communities. This contributes to economic reconciliation.

At this time, KMK is recommending that CNSOER prioritize offshore wind developments on the French Bank and Middle Bank Designated Wind Energy Areas for NS25-1R. The Unama'ki Institute of Natural Resources and other tribal organizations are currently working to designate Indigenous Protected and Conserved Areas, and these areas for protection overlap with Sydney Bight. Further, since French Bank and Middle Bank are in proximity to one another, prioritizing these two Designated Wind Energy Areas could lessen the cumulative environmental footprint for cable lays, substations and general infrastructure. Continuing to keep the Mi'kmaq involved in these developments, integrating Mi'kmaq ecological knowledge and considering cumulative effects will only strengthen projects as they are developed.

Our office will be following up with the CNSOER to explore opportunities relating to the mentioned Participant Funding Program. As these initiatives continue, it is imperative that the Mi'kmaq of Nova Scotia receive adequate funding for technical support to meaningfully respond to consultation requests and otherwise be involved in the offshore wind sector. We are prepared to discuss the participant funding program further, including our priority areas of need.

KMK does not represent Millbrook and Sipekne'katik First Nations. Our office looks forward to continued consultation and furthering discussions regarding the overall consultation framework. This collaboration can help ensure that offshore wind developments respect Mi'kmaq rights, values, and aspirations.

Please contact Patrick Butler, Senior Mi'kmaq Energy & Mines Advisor at KMK, with any questions.

Yours in Recognition of Mi'kmaw Rights and Title,

[redacted]

Twila Gaudet, B.A., LL. B.
Director of Consultation
Kwilmu'kw Maw-Klusuaqn

C.C.:
Kristina Buurman, Kwilmu'kw Maw-klusuaqn
Patrick Butler, Kwilmu'kw Maw-klusuaqn
Jessica Ginsburg, Kwilmu'kw Maw-klusuaqn
Daniel Morin, Natural Resources Canada

[redacted]

[redacted],

Robert (Bob) Anderson asked me to provide you the below submission as part of the call for information. He wasn't able to submit this online for some reason.

I didn't want to provide him with your direct email but if you or your team wouldn't mind following up with him to confirm that you've received this, he'd appreciate it very much.

Thanks!

[redacted]

From: [redacted]
Sent: Tuesday, January 13, 2026 2:00 PM
To: [redacted]
Cc: Bob Anderson [redacted]
Subject: Concerns Regarding Proposed Offshore Wind Project and Negative impacts on the Fishing Industry

[redacted]

My name is Robert Anderson. I am a full-time fisherman fishing out of Canso NS, the President of Area 24 Crab Fisherman Association, and the President of the Canso, NS Harbour Authority.

I am writing to express our serious concerns regarding the proposed offshore windmills project.

The parcels proposed—located at Sydney Bight, Middle Bank and French Bank—are currently and actively used by the fishing industry as a primary source of livelihood. These areas are vital to fishermen and fisherwomen who depend on them to support their families and communities.

Beyond the significant loss of livelihood, this windmill project presents a major risk to navigation and would severely damage marine habitat, the installation of massive structures anchored by large amounts of cement on the ocean floor poses long-term environmental consequences that cannot be ignored and will permanently alter the ecosystem. Once this damage is done, it cannot be undone.

It is difficult to understand why alternative solutions, such as installing solar panels on vacant or unused farm land, are not being prioritized—options that would not negatively impact an existing and essential industry like fishing.

From our perspective, considering the cumulative effects of MPA's and proposed offshore wind developments, and the seismic testing already conducted off our shores, and the complete unknown of the negative effects caused to all marine life by these seismic activities in these fishing areas, these actions give the impression that increasing obstacles are being placed in the path of fishermen trying to make a living from the sea.

Displaced fishermen will face serious challenges finding alternative employment, especially in today's economy. Furthermore, young people will be discouraged from entering the fishing industry, threatening its future and the sustainability of coastal communities.

Please recognize that fishermen and fisherwomen are currently working in these proposed areas to support their livelihoods. Those of us who depend on the fishing industry are strongly opposed to this offshore project.

This proposal must be reconsidered before irreversible damage is done to our industry, our environment and our way of life and the sustainability of our communities.

Robert Anderson
President
Area 24 Crab Fisherman Association

The CNSOER welcomes your suggestions and feedback on the government identified Wind Energy Areas (Sydney Bight, Middle Bank, and French Bank) and the factors the CNSOER will use to design parcels within those Wind Energy Areas.

Opening Note:
The AGC represents offshore (>100') groundfish licence holders in Atlantic Canada, the AFC represents midshore (65-100') fixed-gear groundfish licence holders in Atlantic Canada, and the GITQA represents inshore (<65') ITQ groundfish licences in the Maritimes Region. In this regard, it is important to recognize that the submission herein is a collective response on behalf three fisheries associations representing numerous groundfish licence holders operating across the Atlantic who collectively support millions in economic revenue annually for Atlantic Canadians.

Comment:
Please consider comments provided here to be in conjunction with previous submissions on behalf of the AGC, AFC, and GITQA. Refer to the April 30th, 2025, joint submission on behalf of the AGC, AFC, and GITQA on proposed Wind Energy Areas (WEAs). Additionally, our organizations are members of the Nova Scotia Fisheries Alliance for Energy Engagement (NSFAEE) and we have provided direct input into the NSFAEE's written response to the Call for Information. Therefore, information provided here should also be considered in conjunction with contents provided in the NSFAEE response.

We thank the CNSOER (Regulator) for providing an initial list of potential factors to be considered by the Regulator for parcel identification. We highlight that should parcels consider future opportunities for project expansion and/or multiple developers operating simultaneously within a WEA, possible interactions with the fishing industry from those potential expansions should also be considered a key factor by the Regulator in determining suitable parcel locations wherever possible (i.e., if information for future expansions is available to the Regulator by wind energy developers as early as the first Call for Bids, an analysis should be undertaken to determine potential fishery interactions and subsequent areas within the WEAs that might merit avoiding).

AGC, AFC, and GITQA members harvest multiple groundfish species across the Atlantic, including most of the coastal waters off Nova Scotia throughout the entire year. Groundfish species fished include, but are not limited to, Atlantic cod, Atlantic halibut, redfish, haddock, pollock, and silver hake. Within these species' groups, there are also multiple "stocks" that have differing management regimes in place that dictate when, where, and how harvesters can fish. It is important to recognize that some of these stocks are currently actively harvested while others may have been active in the past but are now under moratorium where fishing is limited. For those under moratorium, focus remains on recovering the stock so that it may once again be a significant economic contributor to the fishing industry and to

Atlantic Canadians. Given this dynamic nature of the groundfish fishing industry, we reiterate that it is extremely challenging to confidently identify areas of low impact to groundfish fleets.

Further, we restate that the narrow temporal scope (2012-2021) of commercial fisheries landings data underpinning most of the analyses for potential direct overlap with fishing activity in the WEAs continues to be a concerning gap for our members who harvest multiple groundfish resources across the Scotian Shelf. In just this past two years alone, we have seen two major commercial groundfish stocks lifted from multi-decadal moratoriums back into commercial fisheries (Unit 1 Redfish and 2J3KL Northern cod). This is direct evidence that the fishery footprint of 2012-2021 does not sufficiently capture all key historical and future fishing grounds. The other significant challenge in this regard, particularly for groundfish resources, is that they are mobile species and shift their location in time and space as a result of things like changing climates and shifts in the oceanographic and biological elements of the environment (e.g., temperature, salinity, currents, predator and prey abundance, etc.).

With the above limitations in mind, we recognize the challenge of identifying "lowest" conflict areas with respect to the fishing industry and offshore wind development. We offer the following additional specifications on our members' current fishing activity relative to the WEAs under consideration for parcel identification and note that continued direct consultations with our industry is needed to ensure the minutia of what, when, where, and how our members fish is sufficiently captured in this process.
Sydney Bight is well known as an historically important redfish fishing area. Until 2024, the redfish fishery in that area had been under moratorium since 1995 and therefore, the 2012-2021 data set does not provide sufficient information on the importance of this area for redfish harvesters. While current fishing activity patterns do not appear to greatly overlap with the Sydney Bight WEA, given the fishery's recent re-opening, it remains too early to confirm the footprint of the re-opened fishery. It is strongly suggested that to support suitable parcel identification in this area and potential future offshore wind development, the Regulator continue to monitor and receive up-to-date fishery footprint data in this area, consulting directly with the fishing industry in addition to the Department of Fisheries and Oceans (DFO).

The French Bank WEA is proximal to silver hake fishing grounds. Specifically, the southwestern edge of the French Bank WEA is directly adjacent to a silver hake fishing hot spot (Figure 1 Attachment). It is expected that parcels designated on the west

side of French Bank are expected to pose a significant risk to the silver hake fishery which has been an active fishery annually for generations.

Of note, silver hake harvesters are only permitted to fish in specific areas under the current fishery management regime and therefore will be limited in shifting their activity in response to potential wind energy development. Additionally, the landings data presented here does not provide the full picture with respect to areas of importance to the silver hake fleet. The fishery is conducted using bottom trawl technology whereby a net is dropped and pulled along by the vessel. For the silver hake fleet, specifically on the western edge of French Bank, a captain will often transit / drift easterly up to 15-20 miles while awaiting the right time and location to drop the net in response to weather, currents, abundance of fish, etc. One of the concerns of wind turbine establishment near these grounds is that this additional 15-20 mile radius needed for vessel movement during fishing activity will be restricted. In this regard, it is recommended that, in addition to direct overlap with fishery landings data, the Regulator consider these details to better inform parcel identification.

There are also concerns regarding the impact of construction and operation of wind turbines in this area on spawning activity of silver hake. Current scientific information indicates that silver hake on the Scotian Shelf spawn July - September where large numbers occur on the Scotian shelf in shallow waters. It is understood that some of the larger adult silver hake will overwinter on the shelf slope but then move onto the banks during the summer to spawn. Scientific evidence concludes that banks on the Scotian shelf are particularly important spawning areas for silver hake (Stone et al., 2013). Given that banks are also a key interest for offshore wind energy development, the potential for interactions between offshore wind development / operations with fish spawning processes that underpin healthy commercial fish stocks is high. Again, these are additional factors in respect of potential impacts to the fishing sector that we recommend be taken into consideration by the Regulator during parcel identification.

The CNSOER welcomes your suggestions and feedback on bid submission criteria to be used as part of the Call for Bids process, including specific criteria, criteria weighting, scoring metrics, and evaluation methods.

Bid submission categories presented here appear reasonably suitable; however, it is suggested that these categories and/or subcategories be expanded to more specifically address consideration of the fish and seafood sector. For example, it is recommended that wind energy proponents be evaluated on their history and experience, including perceived successes and challenges, with stakeholders in past projects. If proponents have had experience interacting with the fish and seafood industry, this should be specifically highlighted.

Fish and seafood harvesters have been making their living from the waters off the coast of Nova Scotia for generations and have continued to generate millions in economic revenue for Atlantic Canadians annually. As long-standing, primary users of this environment, it is important that criteria, criteria weighting, and scoring as part of the call for bids process sufficiently take this into account.

AGC, AFC, and GITQA support a successful co-existence between the offshore wind and seafood industries and are hopeful that it can be achieved in a way that facilitates additive benefit to Nova Scotians as opposed to risking the success of one industry at the detriment of another. Strongly weighted fisheries-related criteria can support this outcome.

Given the dynamic nature of groundfish fisheries occurring on the Scotian Shelf and identified gaps in available knowledge with respect to key groundfish fishing areas, it is recommended that any coexistence plan should not only include references to existing ocean users and uses within a specific WEA and parcel(s) but also those within close proximity to the WEA (e.g., silver hake fishing directly adjacent to the French Bank boundary).

The CNSOER welcomes your suggestions and feedback on coexistence.	AGC, AFC, and GITQA continue to support the approach to achieving coexistence as first, avoiding negative interactions between the fishing and offshore wind industries, second, mitigating potential impacts that cannot be avoided, and last, compensation where the former two items are unachievable. It is recognized that definitions of coexistence vary across individuals, organizations, and jurisdictions. It is recommended that as part of an offshore wind developer's proposal to a call for bids, they clearly provide their definition and understanding of co-existence between the offshore wind energy industry and the fishing industry in Nova Scotia. This will help facilitate achieving coexistence. It is also recommended that offshore wind energy proponents provide a detailed history of coexistence with the fishing industry (or other marine users where the fishing industry has not been involved) from past projects.

The CNSOER welcomes your suggestions and feedback on behalf of governments on considerations for fisheries' compensation.

The continuation of existing fishing activity is the highest priority for AGC, AFC, and GITQA members with respect to future offshore wind development in Nova Scotia. In this regard, we appreciate the CNSOER's recognition that continued activities of ocean users, including the commercial fishing and seafood sectors is a guiding principle for advancing offshore wind in Canada. Our members' primary interest is to continue fishing uninterrupted and in a manner consistent with how they have been doing so for generations. In this regard, it is our view that priority be given first to avoidance of impacts, then to mitigation of impacts, and finally, compensation. Although our view is that compensation should be a last resort, we highlight that the development of a robust compensation framework that can facilitate appropriate compensation payments if needed must not be delayed.

It is recommended that any compensation framework to support wind energy development be completed and publicly available before seabed tenure is granted. Any such framework and associated compensation-related processes should also be transparent and publicly available.

To be a successful tool, a compensation framework must be adaptive to account for impacts/scenarios that may arise throughout the duration of an offshore wind development lifecycle that are currently unknown. It is well understood that there are likely potential impacts that cannot be accounted for at this early stage due to knowledge limitations on how offshore wind development in NS will impact the marine environment, other marine users, and onshore ancillary operations of businesses relying on the marine environment.

Finally, we note that in other jurisdictions (e.g., Scotland), there is currently no compensation mechanism in place for the mobile gear fishing sector who were completely displaced by wind farms due to the nature of their fishing technology and operations. This is of great concern to our members, whom the majority are fishing with mobile, bottom trawl gear, and are at risk of complete exclusion from fishing within or near future turbines. Therefore, it is strongly recommended that a compensation framework account for this, as well as both indirect and direct impacts to the fishing industry.

The CNSOER welcomes your suggestions and feedback on the fees for bid submissions and successful bidders.	It is recommended that in full transparency, specific information on any such fees will be provided to the public including specific amounts and intended utilization. It is recommended that the consideration of such Regulator fees include the potential to support the need for the fish and seafood industry to remain engaged on offshore wind matters, as it is expected that this will be a long-term endeavor.
The CNSOER welcomes your suggestions and feedback on considerations and adherence to the principles listed in the Accord Acts.	With respect to giving "importance" to the consideration of effects on fishing activities, as outlined in the Accord Acts, we highlight that this supports the need for: -Acknowledgment that the Accord Acts specification on effects to the fishing industry is not limited to the WEA or offshore wind project footprint nor does it specifically define fishing activities. -Continued, direct consultation with the fishing industry to ensure that the Regulator, governments, and wind energy proponents have the most up-to-date understanding of fishing activity (i.e., how, when, where, what) that is occurring in and adjacent to the WEAs and any potential offshore wind development. -Establishment of baseline monitoring programs early to support proponents' ability to adhere to the principles in the Accord Acts. -Expanding bid criteria to more specifically address consideration of the fish and seafood sector. For example, as noted above, evaluating potential wind developers on their history and experience, including perceived successes and challenges, with the fish and seafood industry in past projects. -Ensuring that bid criteria evaluation includes heavily weighted fisheries-related metrics to support the Accord Acts requirement of giving due consideration of effects on fishing activities.

The CNSOER welcomes your suggestions and feedback on possible terms and conditions for the draft Submerged Land Licence.	We thank the Regulator for providing a starting list of potential terms and conditions for inclusion in the Submerged Land Licence (SLL). The NSFAEE submission to the call for information includes detailed examples of additional terms and conditions for which the fishing industry recommends be included, and these are supported by the AGC, AFC, and GITQA. Additionally, we flag that the current starting list of terms and conditions provided by the Regulator highlights that the Site Assessment Period is proposed to last a maximum of six years, and that financial assurance from the developer is to be submitted at the end of the Site Assessment Period. It is our recommendation that potential offshore wind proponents be required to demonstrate financial assurance before being issued a SLL.
The CNSOER welcomes your suggestions and feedback on considerations for a Participant Funding Program.	The AGC, AFC, and GITQA support the need for funds to be provided to the harvesting sector to establish capacity building that will facilitate their continued engagement in the process of offshore wind development and its entire life cycle.
The CNSOER welcomes any additional feedback and comments,.	The AFC, and GITQA members are multi-generational stewards of the NS marine environment and the fisheries it supports. To ensure coexistence can be achieved and that the offshore wind energy industry can thrive alongside the fishing industry, multiplying the economic value rather than diminishing one industry by another, completion of an in-depth socioeconomic analysis of the fish and seafood sector prior to offshore wind development is crucial. Thank you for the opportunity to provide feedback into this important process. We will continue to remain engaged as the potential development off offshore wind in NS continues to rollout.
Attach your comments here - Microsoft Word or Adobe PDF.	

Offshore Wind Call for Information NS25-1R – Written Feedback Form

On October 16, 2025, the Canada-Nova Scotia Offshore Energy Regulator (CNSOER) commenced its 90-day written feedback period for offshore wind Call for Information NS25-1R.

The CNSOER welcomes your feedback. The written feedback period began on October 16, 2025, and closes on January 13, 2026. Please use the form below to provide the CNSOER with your comments.

Upon submission of your comments, you will receive a confirmation email with a copy of your submission. If the confirmation email does not arrive in your inbox within a few minutes, please check your junk mail. If you do not receive an email confirmation, please contact us at info@cnsoer.ca if you wish to obtain a copy for your records.

To learn more about the offshore wind Call for Information NS25-1R process, please visit our website.

To ensure our written feedback period is fair and transparent, we post comments we receive on our website and in a public 'What We Heard' report. However, comments of a confidential nature (e.g. Indigenous knowledge) will not be posted on our website or in the report. Please indicate your preference in the consent box below. *

To ensure our written feedback period is fair and transparent, we post comments we receive on our website and in a public 'What We Heard' report. However, comments of a confidential nature (e.g. Indigenous knowledge) will not be posted on our website or in the report. Please indicate your preference in the consent box below. Required field

☒ My comments can be posted on the CNSOER website and in the 'What We Heard' report.

☐ I do not consent to have my comments posted on the CNSOER website or in the 'What We Heard' report.

Name*

First Name: Vanessa Last Name: Byrne

Email*

Email: vanessabyrne@atlanticgroundfish.ca

Organization Name*

Organization Name: Atlantic Groundfish Council (AGC), Atlantic Fixed-Gear Council (AFC), and Groundfish ITQ Association (GITQA).

The AGC represents offshore (>100') groundfish licence holders in Atlantic Canada, the AFC represents midshore (65-100') fixed-gear groundfish licence holders in Atlantic Canada, and the GITQA represents inshore (<65') ITQ groundfish licences in the Maritimes Region. In this regard, it is important to recognize that the submission herein is a collective response on behalf three fisheries associations representing numerous groundfish licence holders operating across the Atlantic who collectively support millions in economic revenue annually for Atlantic Canadians.

If you are not associated with an organization, please write N/A.

Please choose which stakeholder group you identify as:*

Please choose which stakeholder group you identify as:

☐ Indigenous Group or Rights Holders

☐ African Nova Scotia and African Descent Communities

☒ Fishing Sector

☐ Industry

☐ Government

☐ Other Interested Stakeholder

I reside in:*

I reside in:

☒ Nova Scotia

☐ New Brunswick

☐ Prince Edward Island

☐ Newfoundland or Labrador

☐ Other province in Canada

☐ Outside of Canada

How did you hear about this public written commenting period?*

How did you hear about this public written commenting period?

☒ I received an email from CNSOER

☐ CNSOER website

☐ CNSOER X account

☐ CNSOER LinkedIn account

☐ Word of mouth

☐ Other

Skill testing question - What is 7 minus 3?* Answer: 4

This question is asked to verify that you are not a robot.

Check the box below to subscribe to receive informational emails from CNSOER.

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Identifying parcels within the government designated Wind Energy Areas

Governments have selected Sydney Bight, French Bank, and Middle Bank for consideration in this offshore wind Call for Bids. Within these wind energy areas, the CNSOER will be designing parcels based on feedback from Indigenous groups and rights holders, the fishing sector, the public, industry, government departments, and other interested stakeholders, as well as nominations from potential wind developers. The parcel design will be guided by the following details from governments Strategic Direction letter:

- All identified parcels that are recommended to be included in the Call for Bids should have a cumulative generating capacity of up to approximately 3000 megawatts (MW) with the possibility up to 5000 megawatts (MW) based on results of this process. These parcels will enable the potential issuance of multiple Submerged Land Licences.

- Parcel identification should consider and balance the following factors:
    - proximity to shore (prioritizing parcels closer to shore);
    - orientation with prevailing wind direction, to the extent possible;
    - existing onshore grid infrastructure;
    - existing port infrastructure, and/or transmission options;
    - interactions with existing ocean users and activities, including the fishing and seafood industries;
    - potential for adverse impacts to any established or asserted Aboriginal and treaty rights;
    - existing and/or future navigation lanes or corridors;
    - sensitive benthic habitats;
    - important marine and/or identified critical habitat; and
    - any other considerations that the Regulator deems relevant and appropriate.
- The spatial extent of identified parcels should be based on a moderate MW/ square km (km2) density and include a buffer to accommodate for potentially unsuitable areas for project development.
- Parcels should consider future opportunities for project expansion and/or multiple developers operating simultaneously within a Wind Energy Area. The potential for future parcels to be identified in subsequent years (up to annually for the next five years) should also be a planning consideration.
- Specific details for the following designated Wind Energy Areas should be taken into consideration:
    - Sydney Bight:
        - At least one (1) parcel should be identified in Sydney Bight.
        - Parcel identification should focus on areas within the Wind Energy Area that are technically suitable for fixed-bottom offshore wind development.
        - The parcel should be large enough to accommodate a project with a generating capacity up to 500 MW.
    - Middle Bank
        - At least two (2) parcels should be identified on Middle Bank.

        - Each parcel should be large enough to accommodate projects with generating capacities of up to 1,000 MW (2,000 MW total initially, with the potential for additional capacity to be considered upon review).
    - French Bank
        - At least one (1) parcel should be identified on French Bank.
        - Parcel identification should focus on areas within the Wind Energy Area that are technically suitable for floating offshore wind development.
        - The parcel should leave a buffer on either side of the existing, but abandoned, pipeline corridor that runs through the Wind Energy Area.
        - The parcel should be large enough in spatial area to accommodate a project with a generating capacity of up to 500 MW.

Please note that the CNSOER retains the authority to accept nomination for parcels but any nominations that are received will still be assessed against the factors described above and be located within the three identified Wind Energy Areas. To nominate parcels within these Wind Energy Areas, please use the offshore wind nomination form.

The CNSOER welcomes your suggestions and feedback on the government identified Wind Energy Areas (Sydney Bight, Middle Bank, and French Bank) and the factors the CNSOER will use to design parcels within those Wind Energy Areas.

Comment:

Please consider comments provided here to be in conjunction with previous submissions on behalf of the AGC, AFC, and GITQA. Refer to the April 30th, 2025, joint submission on behalf of the AGC, AFC, and GITQA on proposed Wind Energy Areas (WEAs). Additionally, our organizations are members of the Nova Scotia Fisheries Alliance for Energy Engagement (NSFAEE) and we have provided direct input into the NSFAEE's written response to the Call for Information. Therefore, information provided here should also be considered in conjunction with contents provided in the NSFAEE response.

We thank the CNSOER (Regulator) for providing an initial list of potential factors to be considered by the Regulator for parcel identification. We highlight that should parcels consider future opportunities for project expansion and/or multiple developers operating simultaneously within a WEA, possible interactions with the fishing industry from those potential expansions should also be considered a key factor by the Regulator in determining suitable parcel locations wherever possible (i.e., if information for future expansions is available to the Regulator by wind energy developers as early as the first Call for Bids, an analysis should be undertaken to determine potential fishery interactions and subsequent areas within the WEAs that might merit avoiding).

AGC, AFC, and GITQA members harvest multiple groundfish species across the Atlantic, including most of the coastal waters off Nova Scotia throughout the entire year. Groundfish species fished include, but are not limited to, Atlantic cod, Atlantic halibut, redfish, haddock, pollock, and silver hake. Within these species' groups, there are also multiple “stocks” that have differing management regimes in place that dictate when, where, and how harvesters can fish. It is important to recognize that some of these stocks are currently actively harvested while others may have been active in the past but are now under moratorium where fishing is limited. For those under moratorium, focus remains on recovering the stock so that it may once again be a significant economic contributor to the fishing industry and to Atlantic Canadians. Given this dynamic nature of the groundfish fishing industry, we reiterate that it is extremely challenging to confidently identify areas of low impact to groundfish fleets.

Further, we restate that the narrow temporal scope (2012-2021) of commercial fisheries landings data underpinning most of the analyses for potential direct overlap with fishing activity in the WEAs continues to be a concerning gap for our members who harvest multiple groundfish resources across the Scotian Shelf. In just this past two years alone, we have seen two major commercial groundfish stocks lifted from multi-decadal moratoriums back into commercial fisheries (Unit 1 Redfish and 2J3KL Northern cod). This is direct evidence that the fishery footprint of 2012-2021 does not sufficiently capture all key historical and future fishing grounds. The other significant challenge in this regard, particularly for groundfish resources, is that they are mobile species and shift their location in time and space as a result of things like changing climates and shifts in the oceanographic and biological elements of the environment (e.g., temperature, salinity, currents, predator and prey abundance, etc.).

With the above limitations in mind, we recognize the challenge of identifying “lowest” conflict areas with respect to the fishing industry and offshore wind development. We offer the following additional specifications on our members’ current fishing activity relative to the WEAs under consideration for parcel identification and note that continued direct consultations with our industry is needed to ensure the minutia of what, when, where, and how our members fish is sufficiently captured in this process.

Sydney Bight is well known as an historically important redfish fishing area. Until 2024, the redfish fishery in that area had been under moratorium since 1995 and therefore, the 2012-2021 data set does not provide sufficient information on the importance of this area for redfish harvesters. While current fishing activity patterns do not appear to greatly overlap with the Sydney Bight WEA, given the fishery’s recent re-opening, it remains too early to confirm the footprint of the re-opened fishery. It is strongly suggested that to support suitable parcel identification in this area and potential future offshore wind development, the Regulator continue to monitor and receive up-to-date fishery footprint data in this area, consulting directly with the fishing industry in addition to the Department of Fisheries and Oceans (DFO).

The French Bank WEA is proximal to silver hake fishing grounds. Specifically, the southwestern edge of the French Bank WEA is directly adjacent to a silver hake fishing hot spot (Figure 1). It

is expected that parcels designated on the west side of French Bank are expected to pose a significant risk to the silver hake fishery which has been an active fishery annually for generations.

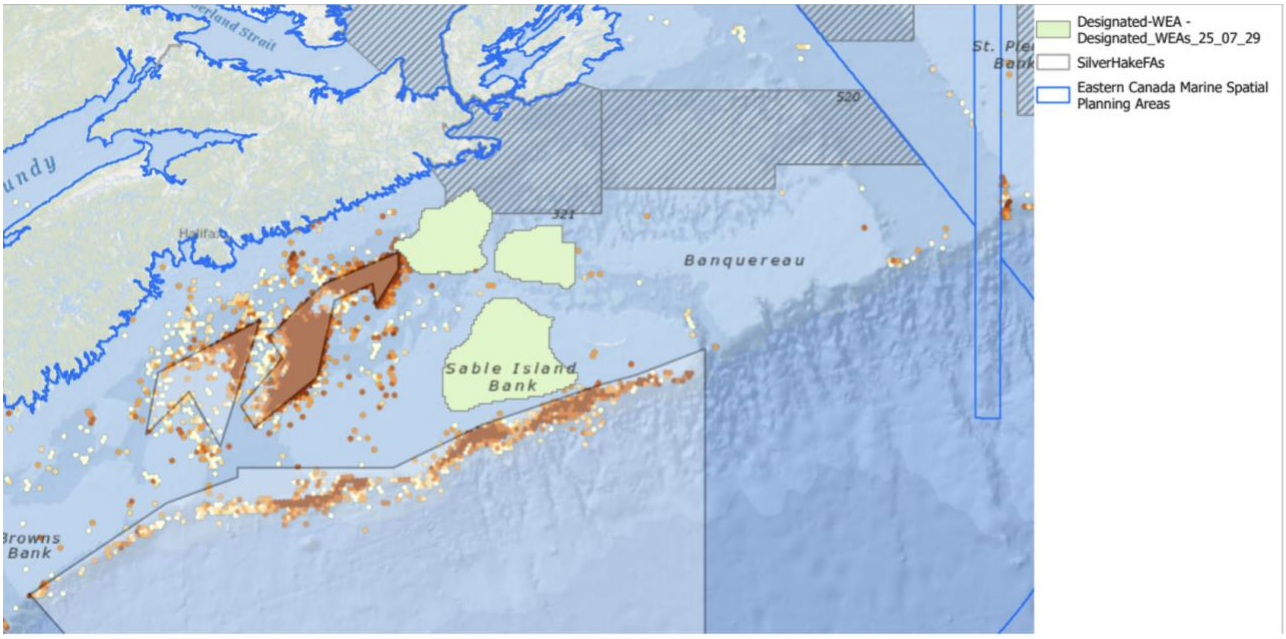


Figure 1: Silver hake landings data (2012-2021) relative to the identified Wind Energy Areas. Image source: Department of Fisheries and Oceans Canada.

Of note, silver hake harvesters are only permitted to fish in specific areas under the current fishery management regime and therefore will be limited in shifting their activity in response to potential wind energy development. Additionally, the landings data presented here does not provide the full picture with respect to areas of importance to the silver hake fleet. The fishery is conducted using bottom trawl technology whereby a net is dropped and pulled along by the vessel. For the silver hake fleet, specifically on the western edge of French Bank, a captain will often transit / drift easterly up to 15-20 miles while awaiting the right time and location to drop the net in response to weather, currents, abundance of fish, etc. One of the concerns of wind turbine establishment near these grounds is that this additional 15-20 mile radius needed for vessel movement during fishing activity will be restricted. In this regard, it is recommended that, in addition to direct overlap with fishery landings data, the Regulator consider these details to better inform parcel identification.

There are also concerns regarding the impact of construction and operation of wind turbines in this area on spawning activity of silver hake. Current scientific information indicates that silver hake on the Scotian Shelf spawn July – September where large numbers occur on the Scotian shelf in shallow waters. It is understood that some of the larger adult silver hake will overwinter on the shelf slope but then move onto the banks during the summer to spawn. Scientific

evidence concludes that banks on the Scotian shelf are particularly important spawning areas for silver hake (Stone et al., 2013). Given that banks are also a key interest for offshore wind energy development, the potential for interactions between offshore wind development / operations with fish spawning processes that underpin healthy commercial fish stocks is high. Again, these are additional factors in respect of potential impacts to the fishing sector that we recommend be taken into consideration by the Regulator during parcel identification.

Potential evaluation criteria for bids submitted as part of the offshore wind Call for Bids process

- Bid submission categories that the CNSOER is considering include:
    - Technical Expertise and Project Delivery Capacity
        - Project Experience
        - Project Plan
        - Pre-feasibility Study
    - Financial Strength and Project Delivery Readiness
        - Net Assets and Equity Ratio or Funds Under Management
        - Financial Track Record
        - Project Financing Plan
    - Engagement and Community Benefits
        - Engagement Plan that is inclusive of the Mi'kmaq of Nova Scotia, African Nova Scotian and African Descent communities, and other underrepresented and underserved groups.
        - Local Community Benefits Plan that is inclusive of the Mi'kmaq of Nova Scotia, African Nova Scotian and African Descent communities, and other underrepresented and underserved groups.
    - Supply Chain and Workforce Development
        - Supply Chain Development Plan that supports establishing an offshore wind supply chain that is inclusive, diverse, and equitable, creating opportunities for Mi'kmaq of Nova Scotia, African Nova Scotian, and African Descent communities, and other underrepresented and underserved groups.

- Workforce and Training Plan.

- Environmental Sustainability and Coexistence
  - Coexistence Plan that includes references to existing ocean users and uses.
  - Biodiversity Plan that includes references to proposed measures to protect, conserve, and/or enhance biodiversity.

The CNSOER welcomes your suggestions and feedback on bid submission criteria to be used as part of the Call for Bids process, including specific criteria, criteria weighting, scoring metrics, and evaluation methods.

Comment:

Bid submission categories presented here appear reasonably suitable; however, it is suggested that these categories and/or subcategories be expanded to more specifically address consideration of the fish and seafood sector. For example, it is recommended that wind energy proponents be evaluated on their history and experience, including perceived successes and challenges, with stakeholders in past projects. If proponents have had experience interacting with the fish and seafood industry, this should be specifically highlighted.

Fish and seafood harvesters have been making their living from the waters off the coast of Nova Scotia for generations and have continued to generate millions in economic revenue for Atlantic Canadians annually. As long-standing, primary users of this environment, it is important that criteria, criteria weighting, and scoring as part of the call for bids process sufficiently take this into account.

AGC, AFC, and GITQA support a successful co-existence between the offshore wind and seafood industries and are hopeful that it can be achieved in a way that facilitates additive benefit to Nova Scotians as opposed to risking the success of one industry at the detriment of another. Strongly weighted fisheries-related criteria can support this outcome.

Given the dynamic nature of groundfish fisheries occurring on the Scotian Shelf and identified gaps in available knowledge with respect to key groundfish fishing areas, it is recommended that any coexistence plan should not only include references to existing ocean users and uses within a specific WEA and parcel(s) but also those within close proximity to the WEA (e.g., silver hake fishing directly adjacent to the French Bank boundary).

Coexistence

Coexistence of the emerging offshore wind sector and existing and future ocean users in the Canada-Nova Scotia offshore is a priority and should be considered throughout the land tenure process as well as the project lifecycle of any future offshore wind projects.

The CNSOER welcomes your suggestions and feedback on coexistence.

Comment:

AGC, AFC, and GITQA continue to support the approach to achieving coexistence as first, avoiding negative interactions between the fishing and offshore wind industries, second, mitigating potential impacts that cannot be avoided, and last, compensation where the former two items are unachievable.

It is recognized that definitions of coexistence vary across individuals, organizations, and jurisdictions. It is recommended that as part of an offshore wind developer's proposal to a call for bids, they clearly provide their definition and understanding of co-existence between the offshore wind energy industry and the fishing industry in Nova Scotia. This will help facilitate achieving coexistence.

It is also recommended that offshore wind energy proponents provide a detailed history of coexistence with the fishing industry (or other marine users where the fishing industry has not been involved) from past projects.

Considerations for fisheries' compensation

The coexistence of the offshore wind industry with existing sectors as well as the continuance of existing activities of ocean users, including the commercial fishing and seafood sectors, are guiding principles for advancing offshore wind in Canada. Nonetheless, there is recognition that future offshore wind development may result in potential impacts to existing ocean users. The CNSOER is seeking feedback on behalf of governments on the considerations for fisheries' compensation. Governments are developing an approach to fisheries' compensation based on the feedback we receive. Click here to read a document from governments on considerations for fisheries' compensation during Call for Information.

The CNSOER welcomes your suggestions and feedback on behalf of governments on considerations for fisheries' compensation.

Comment:

The continuation of existing fishing activity is the highest priority for AGC, AFC, and GITQA members with respect to future offshore wind development in Nova Scotia. In this regard, we appreciate the CNSOER's recognition that continued activities of ocean users, including the commercial fishing and seafood sectors is a guiding principle for advancing offshore wind in Canada. Our members' primary interest is to continue fishing uninterrupted and in a manner consistent with how they have been doing so for generations. In this regard, it is our view that

priority be given first to avoidance of impacts, then to mitigation of impacts, and finally, compensation. Although our view is that compensation should be a last resort, we highlight that the development of a robust compensation framework that can facilitate appropriate compensation payments if needed must not be delayed.

It is recommended that any compensation framework to support wind energy development be completed and publicly available before seabed tenure is granted. Any such framework and associated compensation-related processes should also be transparent and publicly available.

To be a successful tool, a compensation framework must be adaptive to account for impacts/scenarios that may arise throughout the duration of an offshore wind development lifecycle that are currently unknown. It is well understood that there are likely potential impacts that cannot be accounted for at this early stage due to knowledge limitations on how offshore wind development in NS will impact the marine environment, other marine users, and onshore ancillary operations of businesses relying on the marine environment.

Finally, we note that in other jurisdictions (e.g., Scotland), there is currently no compensation mechanism in place for the mobile gear fishing sector. This is of great concern to our members, whom the majority are fishing with mobile, bottom trawl gear, and are at risk of complete exclusion from fishing within or near future turbines. Therefore, it is strongly recommended that a compensation framework account for this, as well as both indirect and direct impacts to the fishing industry.

Proposed fees for all bid submissions and successful bidders

- A one-time nonrefundable fee of CAD 250,000.00 paid by all bidders.
- Successful bidders pay an additional fee of CAD 750,000.00 upon issuance of a submerged land licence.

The CNSOER welcomes your suggestions and feedback on the fees for bid submissions and successful bidders.

Comment:

It is recommended that in full transparency, specific information on any such fees will be provided to the public including specific amounts and intended utilization. It is recommended that the consideration of such Regulator fees include the potential to support the need for the fish and seafood industry to remain engaged on offshore wind matters, as it is expected that this will be a long-term endeavor.

Principles listed in the Accord Acts

The CNSOER is seeking feedback on consideration and adherence to the principles listed under section 98.7 of the federal version of the Accord Act and section 102F of the provincial version of the Accord Act.

These principles are:

- All Canadian corporations and individual's resident in Canada shall have a full and fair opportunity to participate on a competitive basis, including in the course of employment, in the supply of goods and services used in any work or activity related to an offshore renewable energy project.
- Importance shall be given to the development of measures that aim to increase the participation of under-represented groups, including in the course of employment, in the supply of goods and services used in any such work or activity.
- During the submerged land licence issuance process, importance shall be given to the consideration of effects on fishing activities.

The CNSOER welcomes your suggestions and feedback on considerations and adherence to the principles listed in the Accord Acts.

Comment:

With respect to giving "importance" to the consideration of effects on fishing activities, as outlined in the Accord Acts, we highlight that this supports the need for:

- Acknowledgment that the Accord Acts specification on effects to the fishing industry is not limited to the WEA or offshore wind project footprint nor does it specifically define fishing activities.
- Continued, direct consultation with the fishing industry to ensure that the Regulator, governments, and wind energy proponents have the most up-to-date understanding of fishing activity (i.e., how, when, where, what) that is occurring in and adjacent to the WEAs and any potential offshore wind development.
- Establishment of baseline monitoring programs early to support proponents' ability to adhere to the principles in the Accord Acts.
- Expanding bid criteria to more specifically address consideration of the fish and seafood sector. For example, as noted above, evaluating potential wind developers on their history and experience, including perceived successes and challenges, with the fish and seafood industry in past projects.
- Ensuring that bid criteria evaluation includes heavily weighted fisheries-related metrics to support the Accord Acts requirement of giving due consideration of effects on fishing activities.

Community Benefits

There are many options and models to be considered when developing a community benefits program. The CNSOER is interested in your suggestions and feedback on how to advance community benefits.

The CNSOER welcomes your suggestions and feedback on possible considerations for community benefits programs related to offshore wind development.

Comment:

Terms and conditions to be potentially included in the draft Submerged Land Licence

The CNSOER will consider feedback on any specific timelines and terms and conditions to be included in the draft Submerged Land Licence. A summary of potential terms and conditions that may be included in the Submerged Land Licence is found here. Within this summary document are various items we are looking for suggestions and feedback on.

Governments are supportive of having specific terms and conditions that address the following:

- Principles under section 98.7 of the federal version of the Accord Act and 102F of the provincial version of the Accord Act
- Inclusive engagement and/or participation
- Community Benefits
- Supply Chain and Workforce Development
- Monitoring and Reporting
- Coexistence with existing ocean users and uses
- Duration of a Submerged Land Licence, which must be at least 35 years
- Licence periods and project development milestones

The CNSOER welcomes your suggestions and feedback on possible terms and conditions for the draft Submerged Land Licence.

Comment:

We thank the Regulator for providing a starting list of potential terms and conditions for inclusion in the Submerged Land Licence (SLL). The NSFAEE submission to the call for information includes detailed examples of additional terms and conditions for which the fishing industry recommends be included, and these are supported by the AGC, AFC, and GITQA.

Additionally, we flag that the current starting list of terms and conditions provided by the Regulator highlights that the Site Assessment Period is proposed to last a maximum of six years, and that financial assurance from the developer is to be submitted at the end of the Site Assessment Period. It is our recommendation that potential offshore wind proponents be required to demonstrate financial assurance before being issued a SLL.

Participant Funding Program

The CNSOER is working on establishing a Participant Funding Program. For this offshore wind Call for Information process, there will be an initial Participant Funding Program offered that will cover some reimbursement of items. Learn more about this initial Participant Funding Program by visiting our website. We welcome feedback on what should be considered and included in a Participant Funding Program, which will be established in 2026.

The CNSOER welcomes your suggestions and feedback on considerations for a Participant Funding Program.

Comment:

The AGC, AFC, and GITQA support the need for funds to be provided to the harvesting sector to establish capacity building that will facilitate their continued engagement in the process of offshore wind development and its entire life cycle.

Additional feedback and comments

The CNSOER will consider feedback and comments on details shared in the Strategic Direction letter from governments that are not already covered in the above sections, including feedback on the broader regulatory process for offshore wind projects.

The CNSOER welcomes any additional feedback and comments.

Comment:

The AFC, and GITQA members are multi-generational stewards of the NS marine environment and the fisheries it supports. To ensure coexistence can be achieved and that the offshore wind energy industry can thrive alongside the fishing industry, multiplying the economic value rather than diminishing one industry by another, completion of an in-depth socioeconomic analysis of the fish and seafood sector prior to offshore wind development is crucial.

Thank you for the opportunity to provide feedback into this important process. We will continue to remain engaged as the potential development off offshore wind in NS continues to rollout.

This Word version of the offshore wind Call for Information NS25-1R written feedback form is for information purposes only. To submit your responses, please use our online web-based written feedback form.

If you have any questions, please contact the CNSOER at info@cnsoer.ca

Guysborough County Inshore Fishermen's Association
Ph: 902-366-2266/Fax: 902-366-2679 Box 98 - 990 Union Street, Canso, N.S. B0H 1H0

January 09, 2024

The Guysborough County Inshore Fishermen's Association (GCIFA) is a not-for-profit commercial fishing organization. GCIFA is an accredited non-profit association under the Fisheries Organization Support Act, registered with the Registry of Joint Stock. The association is made up of core fishermen and crewmembers that reside and fish in the County of Guysborough, NS. There are 140 members of multi-species license holders with fisheries conducted in the inshore, mid-shore and offshore. The association has a volunteer board of directors who are elected from the membership.

We would like to provide comments and feedback on the Regional Assessment for offshore wind development in Nova Scotia. We appreciate the opportunity to participate in discussions regarding placement of renewable energy development in the ocean and marine spatial planning techniques employed for identifying offshore wind development areas. The GCIFA has been an active stakeholder providing input at meetings, sitting on committees, and attending conferences regarding marine spatial planning for over 20 years. The health and viability of Canada's seafood industry is paramount to the economy here in Nova Scotia. We are concerned the offshore renewable energy sector will impact marine species and the fishing industry's ability to sustain our current level of seafood harvesting and export. We wish to find a path forward that will allow our energy providers to switch to renewables, meet provincial and federal GHG emissions reduction targets, create economic opportunities within our communities and maintain our healthy oceans for future generations to participate in wild caught fisheries. The construction phase, infrastructure, noise, vibrations, and electromagnetic fields created by offshore wind turbines and their effects on fish and fish habitat are concerning. We hope to provide the RA committee with a summary of our concerns, provide some resources for information, relevant data on fishing activity and some useful documents relating to offshore wind and fisheries conflict mitigation produced in other areas of the world.

Our Comments on SeaFOAM methodology, Technical report and Marxan analysis

Setting parameters of the Marxan analysis target of retaining 90% of the total landings for each fishery management unit inherently shows an impact to commercial fisheries. If this target of 90% is achieved, can we expect a 10% reduction in landings of each commercial species? Loss of biodiversity? Reduction in larval survival? Larval transport? Decrease in survival of migratory marine species such as whales or bluefin tuna? The SeaFOAM is a desktop analysis; the real loss could actually be much more than 10%. Is it not possible to set the target at 95%? 98%? Please explain why 90% was chosen. Were those higher targets attempted in Marxan, what was the result? No viable solutions with higher than 90% targets?

LFA 41 is within the SeaFOAM study area and the regional assessment study area. The quota is managed by the DFO. We would be interested to see the Marxan analysis of the offshore lobster high productive areas of LFA41. Unfortunately, this data was not shared with other fishing industry stakeholders or perhaps the analysis was not ready in time for the September 30th deadline of fishing industry representatives to respond to the SeaFOAM analysis and technical

report. I do hope there will be future opportunities to provide input to this process as many of the data layers were not completed in time for public input.

In the technical report prepared by DFO SeaFOAM, what conservation layers will be used in the Marxan analysis? We were informed that marine protected areas were included. What data on marine mammals will be used for this analysis? Are there recent whale migration areas plotted onto map? Recent whale closure areas highlighted?

SeaFOAM project methodology, its limitations and assumptions will likely be thoroughly explained in the technical report.

Identified Gaps from preliminary SeaFOAM analysis

- Spawning and nursery areas, research gaps or outdated data
- SARA species areas other than identified-on ATLAS
- Mackerel, Whelk, rock crab, shrimp trap fishery, eelgrass areas

Fishing activity intensity does not include the water space the boat travels through to get to a specific fishing ground nor will it include the trip to a port to unload the product. Can a map of most frequented routes in and out of ports be highlighted on the Marxan analysis? If not, as another area of conflict of marine space could be shipping lanes and common fishing routes being intercepted by offshore wind construction vessels. Another thing to remember is that many fishermen have their own wharfs, leave from this location and return to this location at end of their fishing trip. Placing a wind farm directly in the path of vessels leaving to go fishing and directly in the path when returning to port (their private wharfs) will impact our daily lives adding extra time and fuel costs onto each fishing trip. This may cause fishing vessels to tie up or unload at other locations to avoid this wind farm, meandering between and around vessel traffic associated with wind farm construction and its added fuel costs. This could have more implications on economics of seafood that is landed in specific counties around the province.

Local ecological knowledge can be incorporated into the technical report. Much data was collected in the past for the oil spill response mapping project. Sensitive species (SARA) were identified, sensitive spawning and nursery areas and economic ranking of fisheries was completed. This information was collected from direct interviews with fishermen, recorded on spreadsheets, audio recordings, with areas highlighted on nautical charts. Identified areas were displayed on digital maps created by the DFO. This project included ecological knowledge from participants conducting fishing activity from the tip of Cape Breton, Cape North to Eastern Shore Guysborough County.

Implementing a buffer zone around healthy fishing areas to protect the stock from leaving the area because they are drawn to the power cables or artificial habitat created by wind farm infrastructure. One long term study recently published from the UK reported more fish in the area of the wind farm than areas outside the wind farm after operation. Fish are drawn to the artificial reefs made by scour material and also drawn to the EMF emitted by the transportation of electricity through the cables. The size of the buffer zone should depend on size of wind farm and bathymetry of the area surrounding the fishing hotspot but should be no less than two to

three times the distance between wind turbines. There are many design specifications for offshore wind turbines that are currently unknown. Also unknown is how these larger turbines will interact with the atmosphere and ocean surface. We are concerns about the impact to the ecosystem from a reduction of wind energy. We have not been able to sufficiently research this topic, its impact or implications for ocean surfaces and marine life. As climate change continues to effect ocean stratification, we are concerned wind turbines will amplify this effect.

More studies are needed on crustaceans and electromagnetic fields. More data is needed on effects on mackerel, herring (extremely sensitive to sound and light), bluefin tuna, billfish and white sharks on effects of EMF. Maximum levels of EMF should be implemented into regulations surrounding the toxicity of EMF to crustaceans and fish lifecycles. Density of power cables, EMF maximum levels and number of offshore substations should be limited by federal regulations that protect fish health, habitat, and behavior.

The decision to add seaweed farming or finfish farming to an offshore wind farm lease could attract more fish to the wind farm. This could have positive or negative effects on fishing. Decisions to integrate aquaculture into wind farms should have stakeholder input and collaborative decision-making processes. We ask that these multi-industry projects not be approved until the effects of renewable energy in Atlantic Canadian waters are thoroughly studied.

We would like to see siting of all offshore wind farms to be at least 50km from the coastline. This will decrease the altered view from the coast and produce less interactions with the fishing industry. This is not unreasonable, many wind farms in the UK are at least this far offshore. China has successfully installed two wind farms approx. 72km off the coast. Hywind Tampen is a wind farm 140km off the Norwegian coast. Orsted Hornsea one is situated 120 km off the coast of Britain. The proposed Marthas vineyard wind farm in the US, and many others in the UK, is 27km off the coast of Massachusetts. The underwater banks and shoals are areas of high biodiversity, high fishing activity and offer important fish habitat. We ask that all offshore wind development is sited a healthy distance away from any bank on the Scotian shelf. They are areas of high economic importance to the fishing industry thus to the economy here in Nova Scotia.

We would like to see a new environmental risk assessment frequently performed as increased vessel traffic and other activities increase the risk of marine accidents such as oil spills, ship to ship collisions, ship to turbine collisions and vessel marine mammal collisions. What is the added risk of a mammal-ship strike from increased vessels on the Scotian shelf? BOEM has estimated that construction activities of each wind project would require 25-46 vessels in the US. That number has to increase the risk of ship strikes to listed species at risk such as the North Atlantic Right Whale.

Cumulative effects from offshore wind development projects in US waters are rarely discussed here in Canada. Many of these proposed projects south of the border are fixed, monopile structures affixed to the seafloor and most are larger in scale than the offshore wind projects proposed in Canadian waters. Many US based proposed and approved projects are 65+ wind turbines in scale. This number of turbines per project installed by pile driving into the seafloor, over the course of several years may have unassumed consequences for marine mammals and

fish that pass through both Canadian waters and American waters. The construction activities may impact marine species that migrate into Canadian waters. Mammals may find themselves here in Canadian waters as a result of impacts of vessel strikes or physiological damage to navigational cognitive abilities or acoustic senses that occurred in American waters from their offshore wind development. It is also very possible that marine species that have the ability to move, will end up in Canadian waters at unusual times of the year to avoid acoustic noise pollution associated with the renewable energy projects in US waters.

The consequence of this could bring a lucrative benefit to the Canadian commercial fisheries or an unhealthy damaged stock that has no food source in Canadian waters during the wrong times of the year, resulting in more strandings and marine mammal mortality events in Canada. The quantity and timing of construction related activities in the US could affect the biodiversity in Canadian waters resulting in marine mammals and other species such as pelagic fish to alter their migration timing or path. Investigations of cumulative impacts on specific species must have a longer lens looking past provincial and national borders. "Wind turbine underwater noise and marine mammals: implications of current knowledge and data needs" by P. T. Madsen1,*, M. Wahlberg2, J. Tougaard3, K. Lucke4, P. Tyack1 on page 289 Pile driving, explains that most mammals will be able to hear sounds generated from construction related to pile driving up to 100kms and potentially thousands of kilometres away. These loud short duration sounds can affect their ability to hear prey and decreases communication with their own species.

Compensation to the Fishing industry

We would like to see the province of Nova Scotia explore a request for information from impacted fishing participants. This has been conducted in the US from states that have opened their waters to wind energy development. An offshore wind energy-fishing mitigation and compensation strategy needs to be prepared. We would like to see a fisheries liaison committee/organization/agency be appointed to deal with conflicts and compensation for all offshore renewable energy projects provincial and federal separately relating to mitigating impacts to commercial and recreational fisheries. Another cumulative effect is local residents adjacent to an offshore wind farm and a member of the fishing industry who has been impacted by the same offshore wind farm are the same people. Fishermen are residents of the small coastal communities that will have an impacted view and seascape from their properties and communities. These are the Nova Scotians who will be impacted the most. These fishermen will require mitigation, compensation, and reassurances that their personal and professional daily lives will be guarded from impacts from this new renewable energy sector. Financial mitigation agreements are an integral part of offshore wind projects, community benefits remunerated for the alterations to their natural views. In other countries, bidding points were offered to renewable energy proponents who pledged to provide specific community benefits to communities impacted by the project.

Compensation to the individual fishers affected by specific projects should be dealt with by the Canada-Nova Scotia offshore energy board. Compensation for non project specific leases being designated for renewables to the wider fishing industry should be written into regulations by the Federal Impact Assessment Agency, this shall compensate for the loss of space, loss of access,

potential losses of current and future income, decreases in value of commercial fishing licenses etc. Temporary fishing area closures due to construction related activities will economically impact our industry. We are regulated by the DFO to conduct fishing activities during specific times of the year. These conflicts need to be dealt with through a fisheries mitigation agency/organization appointed to deal with specific projects. Creating an independent board that is not the energy's regulator will aid cooperation and mitigation discussions.

Will there be a requirement for underwater acoustic monitoring during the scoping phase? 5km away, 10km away from project site? Will there be a requirement for underwater acoustic monitoring during the construction phase? Acoustic monitoring during operation of the project to measure actual noise produced? A 2023 study by Rand Acoustics LLC demonstrated a large difference between reported noise levels produced by sonar equipment as recorded in documents associated with wind projects and the actual measured sound levels during survey activities of offshore wind projects. The underwater noise was erroneously underestimated. Rand's data showed that the noise emitted from the sonar was much louder. The findings of this study is featured in the documentary "Thrown to the wind" released by Michael Shellenberger. Regulators need to independently verify actual equipment sound levels instead of accepting the energy companies sound levels provided in documents. Acoustic underwater monitoring should be carried out during the benthic characterization sonar phase and construction phase by an independent party and transparency of this data is imperative for measuring metrics associated with effects. Monitoring programs of operational phases should be independently performed after turbines start producing power and a report highlighting any changes in estimated noise vs actual noise levels and changes in fishing activity recorded.

Research fund designated for ocean ecosystem health, gauging impacts, and new monitoring technologies.

We would like to see policies that allow for future additional mitigation and best practices to be adopted as new research uncovers effects not currently known. We would like to see new technologies be implemented ongoing for infrastructure and turbines already installed and operational. Some examples are painted turbine blades to reduce bird collisions, technologies that mitigate vibrations, low noise motors vs gear box technology, sound absorbing materials, etc.

Requirements for seismic surveys conducted during the scoping phase for siting should include the requirement to notify the public and other marine users who work in the area, this should be written in the regulations. We would like this activity to be carefully examined using a separate environmental assessment tool with public commenting period. This type of activity can disturb benthic marine organisms and marine mammals. Animals under stressful conditions often cease foraging activities. Seismic surveys could cause a fish population or crustacean population to move out of suitable habitat areas. We are aware of a massive harbour porpoise stranding off the coast of Denmark caused by naval exercises, fishing was initially blamed as some animals had rope markings and missing tail flukes. After weeks of investigations, it was found that a large number of navel vessels were in the area at the time. Transparency should be

a priority for this new offshore wind sector. If a research vessel is conducting sonar activities, the public should be aware of where and when. Research vessels can be very expensive to charter for surveys for a small fishing organization like the GCIFA. Partnerships for fisheries surveys with vessels such as benthic characterization surveys, pipelaying or maintenance vessels. If collaborating, we can provide the technicians for field work at sea if a suitable vessel is available.

We would like to see more opportunities for individuals in adjacent coastal communities offered a chance to invest in a project for partial ownership of energy profits from specific turbines within a project. If individual community members are given an opportunity to own a small share in the profits perhaps there would be more support for offshore renewable energy projects in coastal communities. What has been happening thus far, is foreign owned energy companies meeting with the fishing industry proposing projects that they say will not affect our industry, often refuse to disclose who this renewable energy will be sold to and are very sparse on details regarding benefits to our communities. Nova Scotians already pay the highest electricity rates in the Atlantic provinces with a 6.9% rate hike approved for 2024.

Cumulative effects of non project specific effects

Five individual renewable energy projects in one region, eastern scotia shelf. One right whale or one white shark could encounter effects from all 5 wind farms in a 48-hr period not including wind turbines located in waters south of Nova Scotia. This cumulative effect could alter behaviour which could have fatal results. It is like a final destination movie or the mouse trap® game where the whale successfully survives 8 wind farm interactions, but the 9th is the final fatal blow. Reality is there are other factors such as climate change, fishing, shipping, and environmental toxins that this whale has to deal with not only wind farms.

Assessment of suitable coastline for onshore infrastructure should be fairly distributed across province as opposed to concentrated in less populated areas and counties. As Guysborough is one of the least populated counties in the province, we do not want to absorb a majority of this new development simply because proponents wish to take the path of least resistance.

We would like to suggest fisheries data be updated every 5 years as stocks are not fixed in specific locations, fish populations move over time and climate change is causing rapid changes. A flexible, fluid constantly updated process works best for assessing new projects as they apply for EA approvals.

What type of personal protective equipment will fishermen need to work in proximity to wind farms? How long can they stay in the area before human health is impacted? Will fishermen experience headaches, nausea, vertigo, migraines, dizziness, this could affect their ability to perform their job duties and ultimately impact their safety and other crew members safety. This could impact mental health and affect socioeconomics of local communities.

Cumulative effects assessment of a specific project should have a study area of 3 times their project site and depending on type of infrastructure and construction the noise effects could be felt a thousand kilometres away.

Submitting fishing data to highlight high and low conflict areas, may be beneficial but will this always unfairly direct wind development to the low population areas and "low" fishing activity areas, this puts the sparsely populated counties of NS at higher vulnerability, higher risk to environmental accidents, higher risk to loss of marine space. Everyone knows the population of Nova Scotia is not uniformly spread throughout. The fishing industry activity is not uniformly spread across the Scotian shelf. But there has got to be a more just way to distribute this new marine industry rather than siting all wind farm areas in the less densely population counties/fishing areas.

Reasons why fishermen are concerned about wind turbines in the ocean

- Wind turbines create safety risks to fishermen due to collisions and damage our fishing gear
- The effect on human health of working in close proximity to offshore wind farms will be experienced by fishermen who often work weeks in the same area.
- The turbines and buffer zones require very large areas of ocean space, the commercial fishing industry will lose access to critical fishing areas.
- They may create marine debris
- They may alter marine species abundance or health
- A concern about the amount of taxpayer's investments
- Turbine cables/anchors may harm whales and other mammals
- Wind turbine construction activity could cause whales to move closer to the coastline creating more interactions with the fishing industry
- They create underwater noise pollution, could affect fish behavior and life cycle
- Construction activities damage ecosystem health
- They could affect SARA species ability to recover
- Offshore wind farms could speed ocean warming, affect ocean current regimes and larval distribution
- They could alter migration patterns of fish and mammals

If the fishing industry provides input on identifying areas for offshore wind development, because this area is not economically viable to the fishing industry, and an adjacent area is. What happens when this high productive fishing area becomes unsuitable for fish habitat because of the wind turbines noise/vibrations? How can we prove the fish didn't move because of some 'other reason' ie climate change. Another reason to implement a good-sized buffer zone around high productive fishing location. Required setbacks or exclusion zones must take into consideration economics, fishing as a tradition and cultural value, natural resource extraction of wind is no more important than sustaining coastal communities who rely on the sustainable fish stocks on the Eastern Scotian shelf.

We have heard that some fishing can occur within the wind farms but is it safe? Will the safety of fishermen be at risk? If yes, you can conclude the size of the wind farm plus the exclusion zones is equal to the loss of space that fishing fleets will lose access to. The highest courts in the US have made judgments in favor of the fishing industry losses and we expect the same result here in Canada. We would like to see a fair compensation package offered ahead of this industry being placed in the ocean instead of the lengthy court hearings the industry may have to proceed with in dealing with fisheries conflicts in the future.

The main seafood exporting provinces were Nova Scotia ($2.48B), New Brunswick ($2.21B), and Newfoundland and Labrador ($1.42B), accounting for 70 per cent of Canada's fish and seafood export value. Canada's fish and seafood exports were worth $8.79B1 in 2021, a 36 per cent increase over 2020 and an 18 per cent increase over the previous high in 2019. (Fisheries and Oceans Canada. 2022. Canada's Fish And Seafood Trade in 2021: Overview. Ottawa: DFO. iii + 25 p.). The continued success of the fishing industry is critical to sustaining NS economy. Renewable energy must not replace and cannot replace this industry. Many of the renewable energy companies are foreign owned, private companies that will pocket the profits. The fishing industry provides thousands of jobs directly and indirectly to Nova Scotia. Few jobs are expected after construction is complete of the offshore wind turbines. If we sacrifice the health of the ocean for renewable energy, our NS economy will be negatively affected. This new offshore wind industry pales in comparison to how big our seafood industry is here in Nova Scotia.

The degree of influence offshore wind developers have on final decisions

It worries us that foreign energy companies are attempting to paint a dire picture of cost analysis scenarios that of course favor the cheapest and fastest way to build and place turbines in the ocean. We caution the RA committee that the fastest and cheapest route is not always best. It is best for the energy companies but could have the most environmental damage to our ocean and fish habitat. Is this the way Canada wants to proceed? We have piped oil/natural gas over 225km offshore NS from oil platforms, don't tell us that it is not possible to do the same for electricity. There are offshore wind projects planned for other parts of the world that are over 90km from the coastline. Our utility carries electricity to Nova Scotia homes hundreds of kilometres on land, a business that is very profitable for its shareholders. Images produced by a consulting firm which highlight good (cheapest) areas for wind development get published over and over again in media coverage as well as open public information sessions held by Net Zero Atlantic is alarming and misleading the public. Instead of using the image that highlights both fishing and good (cheapest) wind areas, the image of good wind areas only gets published. This is disheartening and may influence final decisions. Nova Scotians are starting to believe that decisions are already made regarding placement of offshore wind sites because the same maps are published time and time again. Those images highlight the cheapest spots for the energy companies. There are in fact many other areas that the wind resource is equally available. It is bold and presumptuous to announce a renewable energy project before the governmental assessment is completed. It could jeopardize the independence of the consultation process. Are renewable energy companies attempting to circumvent the objectives of the RA Committee?

It may be necessary that DFO resource management investigate where new fishing areas or existing licenses could relocate to fish their quota to accommodate wind development to allow harvesters to continue landing the same quantity of seafood. Keeping in mind that moving a license or quota to the other end of Nova Scotia will likely result in other harvesters benefitting instead of the harvester that was impacted. For example, a fisherman from Guysborough County is not going to travel to Yarmouth to fish his quota, he would end up selling it and his small coastal community would lose the economic benefits from the seafood landings/jobs. Conversations between DFO resource management and commercial fish license holders would be necessary. If the Minister of Fisheries and Oceans wants to maintain current seafood exports and create Gigawatts of offshore wind, there will be concessions her department will have to make to allow harvesters to fish areas that historically their licenses does not allow. If all the offshore wind development is installed in areas East of Halifax, then Harvesters who fish east of Halifax must be allowed to fish other areas possibly farther west than their license historically allows. Taking 2,000km^2 of ocean space for wind development, concentrates fishing effort in other areas which results in more pressure on the stock. New fishing management areas may need to be created or altered. Altering fishing season start and end dates may need to be adjusted to allow time to catch quotas or other harvesting rules may need to be removed. Reducing our fishing areas impacts many other things economically and ecologically.

Benefits to Nova Scotians

Offshore wind energy projects won't result in cheaper electricity rates at Nova Scotia Power for consumers. It won't make us richer. It allows a foreign owned corporation to extract yet another natural resource from Canada with out compensating Canadians and local residents who have to put up with these turbines being in their back yard. It allows a private corporation NS Power Inc to skirt a carbon tax that they could have avoided had they not been unresponsive during the last 20 years. The private company providing electricity to Nova Scotians have raised and plan to continue raising utility rates for consumers. Where are the benefits to Nova Scotians to offshore wind energy projects? A few jobs during construction can be achieved with any economic development project. When the risks to a sustainable industry and environmental costs outweigh the few benefits, is the project worth doing?

The feasibility and profitability of offshore wind farms are dependent on international energy markets, the price of natural gas, the availability of raw materials such as steel and concrete, the price of crude oil and the price of mining minerals required for fabrication of wind turbines. There are many external factors affecting the renewable energy sector. Instability in the markets will undoubtedly slow and pause these projects. The astronomical cost of start up infrastructure coupled with the high-risk market instability is causing many energy conglomerates to put brakes on renewable projects, often requiring millions of dollars of public funds to initiate renewable energy projects with no requirement for completion or recovering public funds when projects don't materialize. When battery storage technology improves will the energy from offshore wind turbines be profitable compared to renewable energy produced on land.

If materials can be constructed here in NS, then it needs to be manufactured here. The requirement of local materials, workshops, professionals and factories should be included in

regulations. Coastal communities closest to the project should take priority in all consultations whether they are First Nations communities, African American communities or predominately Caucasian communities. It is disgusting that local residents have to view the wind turbines everyday without compensation and yet other communities 200km away are offered benefits ahead of project announcement. MOUs and project partnerships should be signed with the communities the project is closest too and impacted marine users. Communities that are closest in proximity should be informed first and get an opportunity to invest first.

Marine Mammals

The breadth of knowledge and literature published on marine mammal acoustics would worry even the most carefree Nova Scotian when it comes to offshore wind turbines. Size matters when it comes to sound emitted by the turbine. The design of a 15MW turbine has just been completed this year in 2023. This technology is still in a prototype phase. No studies have been completed on noise levels. No tests have been performed in the marine environment. No data has been published on the sound output, EMF levels, vibration levels or pile driving noise associated with installation of these large sized turbines. Therefore, we cannot make assumptions about impacts. The renewable energy regulator should publish thresholds based on biological behavioral changes to marine species and metrics to monitor. Setting these guidelines now will allow the renewable energy industry to develop and grow in a manner that furthers the continuation of a healthy ocean ecosystem and generates renewable energy for Canadians.

Dead whales and dolphins – Stopping the domino effect

Blame game – The blame game has the potential to negatively impact either or both the fishing industries and renewable energy developments. The social license to conduct operations within Nova Scotian waters could be revoked if granted at all. It is imperative that renewable energy companies operate with a level of integrity and social responsibility in respect to the marine waters and other marine stakeholders.

Publicity – media releases regarding marine mammal interactions or detection of their presence within a wind farm lease site require immediate communication to Canadians on a public social media platform or accessible website during siting activities, construction and operation of wind turbines. In the US renewable energy proponents are required to report interactions with mammals such as ship strikes but this data is never released to the public. This is a grave disservice. How can we protect marine mammals if the cause of their injury/death are hidden? Yet when a fishing rope is found wrapped around the carcass of a whale, it is information readily released in the media.

Transparency - The necessity of transparency surrounding marine mammal interactions requires trust and cooperation within industries and a level of commitment to inform Canadians in a timely manner. The necessity to inform regulators obviously will be implemented within guideline frameworks but information releases to the general public and media are imperative as social media will be quick to pass judgment and could affect other industry reputations as well as the renewable energy company.

Mitigation Baseline data collection for a minimum of 2-3 years on marine mammal presence and identification of species as well as timing should be a minimum requirement. We would like to see scoping of site characteristics to occur during times when marine mammals are not present. This should be confirmed by acoustic listening devices as well as sounding deterrence signals well in advance to give whales and other mammals time to vacate the area before sonar scans, or construction related activities occur. These alarms should occur frequently and ongoing during construction.

Fall out on seafood industry, negative publicity affects seafood exports and international market access and prices. If a marine mammal fatality occurs in the vicinity of an offshore wind farm, specify distance from wind farm and operations that were occurring in the last 14 days even if the mammal is found entangled in fishing gear. Disclosing any information that may pertain to this mammal or this mortality event could lessen the impact on seafood prices. Siting an offshore wind project within a designated fishing area could affect the value of commercial fishing licenses. It also could negatively impact the perception of the health of the seafood which will have cascading effects on prices, consumer behavior and social perception of seafood viability as a healthy food option globally.

The area of Western/Emerald Banks Conservation area also known as the haddock box is already not being used by the fishing industry. This area is large in size, over 10,000km^2. This conservation area already excludes fishing activity. It remains open to all other marine users. We have conceded that transmission cables will undoubtedly be placed in important fishing areas. GCIFA is aware the pipeline corridor previously used by the oil and gas industry off Goldboro is a coveted location for prospective offshore renewable energy companies. This pipeline corridor covers a distance of over 200km from shore. Local fishermen will be affected by this infrastructure. Compensation needs will arise. The fishing industry can and is willing to absorb the loss, temporary or permanent from transmission cables. We cannot loose access to our fishing grounds because renewable energy is more important than a local sustainably harvested food source. We would like the RA committee to note dormant, unused oil and gas leases should be areas thoroughly investigated for renewable energy production. These two areas mentioned above should be the first areas explored for renewable energy, they would result in the least impact to the fishing industry.

The list of renewable energy companies that have applied for a marine mammal take authorization in the US is growing by the day. It appears that every renewable energy proponent that has been granted a lease for offshore wind projects has applied for this permit. Each permit can be effective for up to 5 years. Wind Energy companies conducting not only construction activities, but site characterization surveys have applied and been approved for a marine mammal take authorization permit. This is concerning. The information being relayed to the public is this type of benthic characterization surveys are not harmful to marine mammals. Why the need for a marine mammal take permit to conduct a sonar benthic characterization survey? Is it to ensure the company is not liable for vessel strikes with marine mammals or is this type of technology indeed harmful to marine mammals? 44 dolphins washed up dead in the state of New Jersey this year. That is a lot. We have a healthy Atlantic white sided dolphin population here in Nova Scotia. We have less than 4 dolphins washing up dead on our beaches currently each year. In Canada, when a

project is expected to impact species at risk, the proponent applies for a SARA permit. We are unaware if there is a public consultation process associated with a Section 74 SARA application. In some instances, in the US, the public review period was 15 days to provide comments on a 1-year marine mammal take authorization renewal for energy companies conducting simple benthic characterization survey activities.

We regret we do not have more time to prepare stats regarding the number of marine mammals take authorizations currently approved in the US for renewable energy projects on the east coast. It is our hope that Canadian government public service marine mammal researchers are taking notice and factoring these projects into the hurtles facing the North Atlantic Right Whale population recovery strategies. For example, a renewable energy proponent in the US was granted approval to conduct site characterization surveys for which the marine mammal take authorization permitted the harassment of 8% of the global population of NARW. This same project has recently applied for a 5-year marine mammal take authorization permit for the construction phase of its wind turbines. The application requests permission to conduct activities that could harass/impact 88 NARW in its first year (almost 24% of the population), and 91 NARW in the second year of the project, almost 25% of the global population. There are an estimated 368 North Atlantic Right Whales left in the world. And that is just one project's potential impacts! Fishermen fear that wind turbines may attract marine mammals, if so then fishermen will avoid travelling through or fishing within the wind farm. There is no doubt the offshore wind industry will negatively impact marine mammals.

https://www.fisheries.noaa.gov/national/marine-mammal-protection/incidental-take-authorizations-other-energy-activities-renewable

"Project activities that may result in incidental take include pile driving (impact and vibratory), drilling, unexploded ordnance or munitions and explosives of concern detonation, and vessel-based site assessment surveys using high-resolution geophysical equipment."

Draft Impacts Table

We were asked to provide comments on Table 1 Draft Table of potential impact pathways and impacts on identified valued components from offshore wind Activities provided by the RA Committee:

In the marine fish and fish habitat component

- Water quality characteristics other than turbidity
- The potential toxins such as pyridine, heavy metals and bacteria that could enter the marine environment from disturbing ocean sediment layers. A plethora of contaminants exist in marine sediments from historical industrial activities and natural deposits, undisturbed they are harmless to fish and fish habitat having very little interactions with the seawater. Cadmium compounds and chromium compounds are listed as a group 1 carcinogenic to humans by the IARC

Potential Impacts: Once construction related activities disturb benthic environments, these contaminants could impact fish, fish habitat (water quality parameters) and other marine users who rely on these fish stocks. Fish mortality events could continue to occur for quite sometime after seabed disturbance up to two years. When this topic was discussed at stakeholder engagement sessions, and a NRCan meeting regarding Bill C-49, the response was this topic is covered by an EA on specific projects. Once an EA has been approved, and this chemical release occurs after approval, during the construction phase, what remedial actions can the fishing industry take to recoup income losses due to a crustacean or groundfish mortality event? We have not received a satisfactory answer to date.

Viewscapes / Visual Aesthetics – Potential impacts

- Tourism Industry could be affected by the offshore wind energy sector
- Real or perceived impacts to physical and/or mental health from a change in viewscape. This impact could also be applicable to members of the fishing industry as their view of their workspace will be altered. Fishermen could suffer mental and or physical health impacts particularly if they can see the wind farm from their home community and fish in the vicinity, often for days at a time, of an offshore wind development area.

Fisheries and other ocean users

Potential impacts

- Economic impacts specific to the fishing industry who are reliant on wild fish stocks.
- Changes in harvesting locations - Commercial fishing is designated to specific harvesting areas already enforced by the DFO. Our fishermen cannot move their licenses to other areas, we are required to conduct our fishing activities in areas detailed in our fishing conditions by our regulators. If fish stocks move, we cannot necessarily follow.
- Profit margins decreases due to burning more fuel. Often seafood harvesting prices dictate whether a fishing trip or quota is profitable for our harvesters, with recent high costs of diesel and bait, increasing fuel costs could result in less quota being caught. Occasionally the DFO will decrease quota in the following year if the previous years quota were not caught. The potential to lose future quota factors into every decision fishermen make.
- Changes in Nova Scotia seafood exports
- Changes in value of commercial fishing licenses after siting an offshore wind farm within the designated fishing area.
- Avoidance of the area due to fear of workplace accidents
- Effects on local fish processors from potential reductions in catch also has a domino effect on communities. The fishermen and his crew are affected first, then processors and their staff, then communities and small business also feel the effects of reductions in seafood landings.

Health Impacts

- Physical and or mental impacts to marine users from working in close proximity to an offshore wind farm

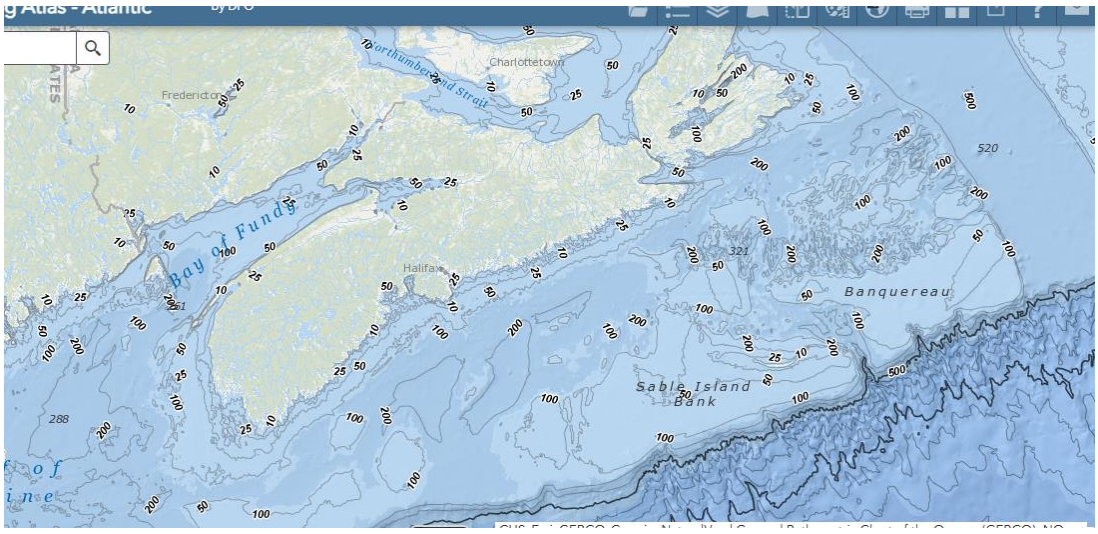
- List of health impacts associated with wind turbines on land can be transferred to offshore wind turbines. Keeping in mind, that offshore wind turbines will be bigger, louder, taller and sound travels faster across water. Can we infer that offshore wind turbines will have more impact on human health than land turbines? Is there human health studies on the proper PPE we should implore when working within an offshore wind farm?
- Is there more vertigo, headaches, etc.
- Job loss due to health issues associated with wind turbine proximity / risks/dangers
- Safety of people who work at sea
- Fear of workplace accidents

Increased risk of collision was captured in the changes in fisheries operations but should also be included in health component.

Communities and Economy Section of draft table of impacts

- The draft table published during the regional assessment noted "changes in household income" as a possible impact. No change in household income, employment levels and economic activity is also a potential impact. This scenario must also be weighed. Potential for electricity rate increases to pay for infrastructure will be passed on to the taxpayers of this province. We are currently paying for a carbon tax, when this gets removed because we have switched to renewable energy, the tax will be renamed as a renewable energy surcharge. There is no energy source cheaper than coal. Global warming is forcing us to switch off fossil fuels but wind energy is not a cheaper energy source.

Map of Nova Scotia Eastern Scotian Shelf



Shallower Areas or Banks are hotspots of biodiversity and high commercial fishing activities.

- Middle Bank
- Roseway Bank

- LaHave Bank
- German Bank
- Emerald Bank
- Grand Mannan Banks, Southwest & Northeast
- Browns Bank
- Sable Island Bank
- Canso Bank
- Misaine Bank
- Artimon Bank
- Banquereau
- St. Pierre Bank

- Drilling Muds contain numerous toxic heavy metals. We are unsure if any construction activities associated with renewable energy projects will employ any type of drilling muds. There are many published studies on the toxicity of these muds to crustaceans.
- Anti corrosion and anti-biofouling chemicals used in this industry should be monitored, water quality monitoring programs are necessary as these chemicals are known toxins for marine life, before construction, during construction and post construction.
- Hypoxic conditions are known to occur in the ocean under natural conditions but also are known to occur due to climate change and anthropogenic influences. A heavy organic decomposition layer can create unhealthy conditions in the ocean.

Cultural and Heritage

Nova Scotia's heritage is fishing. Many of our coastal communities were established over 400 years ago. Small fishing villages are the number one reason tourists visit Nova Scotia. Our pristine waters and seascapes offer a vacation away from industrial infrastructure with quiet beaches where seabirds are often the only sounds. Our coastal waters, inlets and bays should offer tourists and local residents not only economic opportunities but also recreational activities and intrinsic value of nature. Altering our seascape could impact the tourism industry, recreational boaters, and our identity in small coastal towns as ocean stewards. Sable Island offers tourism opportunities. It is a piece of our culture and heritage here in Nova Scotia. Research regarding seabirds surrounding Sable Island should be conducted. Granting seabed leases of Nova Scotian coastal waters to an energy conglomerate, to local residents feels like we are losing a part of our family. A familiar neighbour that has been looking after us and vice versa for centuries. We rely on these coastal waters to feed our families, harvesters for a livelihood and the indirect jobs they provide. The ocean offers us employment opportunities, recreational activities, and cultural experiences.

A multi-billion-dollar fishing industry exists here right now in this province, any new marine user that wishes to share ocean space with this giant industry already operating in Nova Scotia waters must not impact this billion-dollar industry. It would be devastating to our coastal communities. The new offshore wind renewable energy sector does not promise thousands of jobs to Nova

Scotians, it does not promise cheaper electricity and it does not promise to sell this renewable energy source to Nova Scotians.

We need regulations before seabed leases

Nova Scotia specific documents on policy, frameworks and best practices need to be prepared, as we do not have the time to write these documents before feedback is submitted to the RA committee, we have provided a similar document from another country that could be used as a guide and a list of guidelines and reports that should be prepared in preparation for this new sector operating in a shared marine space. Nova Scotia Fisheries Alliance for Energy Engagement (NSFAEE) should have input into contents of such documents when being created.

- We need a framework for mitigating impacts for commercial and recreational fishers.
- We need community benefits guidelines
- We need an EA process that deals with cumulative impacts
- We need documents on best practices, setting threshold noise levels, lessons learned from other countries etc.
- We need fisheries liaison groups/board/committees to deal with project specific fisheries interactions and communications between industries reps and renewable energy companies.

Thank you for your consideration of these comments.

Sincerely,

Melinda Cole - Marine Biologist for Guysborough County Inshore Fishermen's Association

Ginny Boudreau, Executive Director for Guysborough County Inshore Fishermen's Association

Guysborough County Inshore Fishermen's Association

Comments on the Draft Final Report from the Regional Assessment of Offshore Wind Development in Nova Scotia

GCIFA feedback on Recommendations

T1-1 Develop a Scotian Shelf Collaborative Research Initiative (SSCRI)

GCIFA recommends Guysborough County requires a specific research initiative especially since four of the eight PDAs are marine areas off Guysborough County. These PDA's will likely be the first to be developed. Proponents have expressed interest in offshore marine sites off Guysborough County waters, as far as we are aware there are no proponents who have expressed interests in the other PDAs.

T1-2 Fund a Mi'kmaw Ecological Knowledge Studies (MEKS)

GCIFA recommends a commercial fisheries study funded that encourages traditional and cultural knowledge of the eight identified PDAs. Commercial fishing usage of the banks off Canso go back four centuries. Misaine, Canso and French Bank have historical and cultural importance to the fishing industry. The fishing off Canso was world famous and known as the most lucrative fishing area in all of North America. For centuries these marine banks have sustained our coastal communities and provided not only a local source of food but also our way of life. Hundreds of Spanish, British and Portuguese fishing fleets flocked to Canso each year to fish these banks, long before Canada existed as a sovereign nation. This fishing ultimately leading to more permanent settlements which lead to the birth of our country. To summarize the cultural importance of these fishing banks is impossible to put into words.

The cod moratorium is affecting our fishing activities, but positive news regarding other species of groundfish are seeing large population increases with an eastward shift in the population range. The ground fishery targeting predominantly halibut happening along the Scotian shelf has participants of fish harvesters from wide across the province. Renewable energy projects close to the 25 km buffer will ultimately affect this group of fishermen.

T1-3 Create a shared repository of data and sources.

GCIFA recommends all research data be open sourced without a time constraint as was the case with the petroleum industry. We would like to note commercial fishing is a competitive industry. Disclosing our data could be detrimental to our family-owned fishing businesses.

T1-4 Provide support for ongoing research in federal departments on modelling and marine spatial planning.

T1-5 Provide funding to Mi'kmaw organizations for research on adaptive management.

GCIFA recommends funding for fisheries organizations for research on adaptive management.

T1-6 Prioritize and expand the general collection of environmental data, especially in the vicinity of the PDAs, including the bathymetric and substrate characteristics, bird behaviour and habitat use, and marine mammal behavior and habitat use within the RA Study area.

Yes, we agree, we need baseline data, and this should be tied to tier 1 and tier 2 designations.

T1-7 Open discussions with the state of Maine to contribute to and develop mutually supportive research agenda associated with their proposed floating OSW test site.

Yes we agree with this recommendation.

T1-8 Establish participant funding to last at least five years.

We would like the RA committee to suggest who or what department should pay for this funding. We also suggest specific fisheries groups funded for ongoing talks between industries.

T2-1 Establish a port advisory group. Yes, we agree, but who will fund this group?

T2-2 Undertake Class D cost estimate and model effects

Whose responsibility will it be to take this task on, who will pay for it?

T2-3 Adopt a regional /national planning approach for the provincial OSW roadmap

Yes, it is confusing and scary for both the federal government and provincial government to be moving forward on their own. We do not want provincial Ministers adding more offshore wind projects because the need of the province has increased due to large projects on land.

T2-4 Initiate socio-economic studies for key communities

We agree with this recommendation, priority to communities first impacted.

T2-5 Engage the departments of Education and Early Childhood Development and Skills, Labour and immigration in the evolution of the OSW Roadmap. Yes, we agree.

T2-6 Establish targeted immigration and recruitment programs to attract foreign specialists

There is a housing crisis in coastal communities. Temporary housing structures would need to be installed or built. Hotels and Airbnb rental properties as well as more permanent housing options. Apartment buildings etc. Recommendations on who is going to responsible for the build.

T2-7 Compile a database on GBA+ research specific to OSW industry. Yes, we agree.

T3-1 The establishment of a 25-km coastal buffer zone

- "Other incursions are likely to be requested by developers for a variety of reasons including project economics (generally more favourable closer to shore) or changed

> circumstances such as the availability of new data or technological innovations. The Committee is very cognisant of the many unknowns in the marine environment including the impact of climate change on oceanographic conditions and species distributions. Some of the data gaps (see section 9) are specifically addressed in the report's recommendations (see section 10). Technologies continue to evolve that will improve OSW design and enhance data gathering and monitoring techniques. In recognition of all these facts, the Committee supports the adoption of principles of adaptive management to enable an evaluation of a request for an incursion into or modification of the buffer. In practice, this would require that the regulatory authorities, in conjunction with key interests but always including fishers and First Nations, develop hypotheses that the party seeking the incursion or modification to a boundary (coastal buffer or PDA) would have to address through planned engagement and a defined research program. Adaptive management allows for changes to the Committee's recommendations through engagement and analysis."

GCIFA believes this section of the final draft report opens the door to disregard the 25km coastal buffer. Is this a provincial want? It absolutely gives discretion for developers to negate the 25km buffer. GCIFA recommends the final draft report encourage only construction related activities and transmission cables to interrupt the 25km buffer. These impacts alone will be substantial for the fishing communities along the coast. Without that coastal protection, energy proponents with government approval could approach property owners and fishermen along the coast offering mitigation in exchange for views of turbine blades, noise impacts and the potential to impact the tourism industry, commercial seafood harvesting, shipping industry and recreational boating communities. This could cause a divide within the community. We recommend no renewable energy development projects occur outside the identified PDAs. We recommend no additional new PDAs be identified. The Regional Assessment has identified more than enough potential development areas for renewable energy. It is time to remove areas that have been identified as not suitable.

Health Canada's response to the committee's questions regarding human health is based on this 25 km coastal buffer zone being implemented. "A 25 km coastal buffer zone, established in the interim report, should be sufficient to eliminate most of the potential adverse noise impacts on human health." Health Canada suggests if projects are situated within the 25 km buffer, the potential for shadow flicker to impact human health becomes more relevant. Health Canada recommends more research is needed on many potential impacts such as EMF. Health Canada recognizes there is a potential for human health effects through contaminated seafood. They suggest an evaluation of impacts on marine species consumed by humans. Nova Scotia Fisheries and Aquaculture should initiate a program to explore this in the future before construction and after operation of wind projects. There is no mention in the response about the potential of Nova Scotians who work on our coastal waters' health to be impacted. We would have liked to see Health Canada suggest thresholds for noise, distance to shore and EMF. What health protections are there for Canadians from offshore renewable energy projects?

T3-2 The adoption of Tier 1 and Tier 2 Proposed Development Areas (PDAs)

Methodology is good. We are concerned that energy companies will have influence on future designations of moving PDAs from Tier 2 to Tier 1 without the necessary baseline data and investigations that is required. Legislative regulations surrounding when and how tier 2 areas can become tier 1 areas should be implemented and a clearly printed definition and rationale for designation of tier 1 and tier 2.

T3-3 a-f Development of bid criteria and bidder pre-qualifications

T3-4 Development of guidelines regarding in-field personnel transfers

T3-5 Requirement for adequate security related to abandonment and decommissioning activities

T3-6 The potential reduction of existing abandoned pipeline corridor exclusion zone.

2.5 N Mile restriction on bottom gear fishing could be reduced, this is a good thing but consideration for gear configuration that would face restrictions due to the characteristics of the gear type, i.e. halibut longline gear.

T4-1 The establishment of a compensation regime to address economic loss caused by exclusion based on the principles set out in T4-1a to T4-1d

GCIFA Feedback and Recommendations for the Final Report

- We originally had 9 months to look at our activity within the 6 PDFA, GCIFA has now 60 days to respond to the final draft report where new marine areas have been identified for the first time in this impact assessment such as Misaine bank.
- GCIFA recommends Transport Canada conduct a study that investigates cumulative marine traffic in the Strait of Canso and Eastern Shore to include spill risk, ocean noise, marine mammal vessel strike risk and impacts to commercial fishing from extra marine traffic (example gear loss).
- Nova Scotian coastal waters, Guysborough County fishermen and ports within the county are already experiencing increased marine traffic from the wind industry. We are and will continue to experience impacts now with no community benefits commencing until maybe 2030? How can this lag in benefits be resolved or mitigated?
- Fishing activity intensity does not include the water space the vessels travel through to get to specific fishing grounds, nor will it include the trip to a port to offload the product. The impacted harvesters may be vessel owners that travel through PDA but may not have landings in that ocean space. Impacted harvesters will also be fishing boats that are impacted by the transmission cables to shore not within the leased renewable energy site. How can these fishermen show they are going to be impacted? What evidence will suffice for attaining compensation?

- The research vessel Coriolus II entered a PFDA 19 days during the month of May, and 7 days during the month of July, 3 days in August during 3 months of monitoring. This activity demonstrates impacts are being felt by the fishing industry already. Vessels have been conducting sonar surveys in 2024 and this type of activity is going to continue. GCIFA requests that DFO collect empirical data on ocean noise from these surveys as they are ongoing. Computer models and computations are great for estimating but now that these surveys are happening, DFO can collect real-time data for assessing ocean noise.
- The Marxan with zones analysis conducted by DFO considered Marine Refuges as exclusion areas for the wind zone as OSW has not been assessed as compatible or incompatible within existing regional Marine Refuges. GCIFA recommends a new Marxan analysis for this to be assessed.
- It will take time and resources for GCIFA and other fishing associations to aggregate their fishing data collected within PDAs. Separating fishing vessels that fish in the PDA and vessels that have travelled through on their way to port/destination will also be a cumbersome task. Funding for such tasks would be required.
- The areas identified in the wind zone by the Marxan spatial analysis in the summed solutions EXCEED the area necessary to meet the initial provincial target of 5 GW as detailed on page 5 bottom paragraph of the "Summary of DFO's Marine Spatial Planning Decision Support Tool using Marxan with zones"
- How can Nova Scotia, seafood harvesters and fishing representatives plan for this new industry without knowing how much space this industry requires? Marine spatial planning would require at a minimum this information. We voiced our concerns in our previous submission about identifying large ocean areas for renewables when "the need" has not materialized. Nova Scotia's need for renewable energy and the benefits to Nova Scotians should be considered before the needs of our federal government's carbon emission reduction targets. Nova Scotia is a small province. Our emissions are approximately 2% of Canada's carbon emissions. The province of Alberta and Saskatchewan are our countries biggest emitters. A small, largely non-industrialized province like Nova Scotia should not have to carry the weight of these other provinces which refuse to implement regulations on polluting industries.
- Regarding the July 23, 2024, letter, from the Minister of Environment and Climate Change Canada, the Minister of Energy and Natural Resources Canada and the Minister of Natural Resources and Renewables, we are very conflicted when the province and NRCAN announced 2,000 km^2 to meet their 5 GW target as we received no notice from these departments that their targets had changed. Where is the roadmap heading? What is the target now? We deserve an explanation for the increase in ocean space designation.
- GCIFA submitted a request regarding whether the energy projects will be using a 3MW/km^2 density and if this density would be a regulatory standard? Will the province

also adopt this density standard? The answer we received back from the RA committee members were there has been none selected yet and it will depend on specific projects.

- The new eight PDA's have a collective area of 31,200 km^2. The previous 6 PFDA's had an area of 11,510 km^2. The rationale for expanding the potential offshore wind areas was recent geologic surveys did not find suitable substrate for monopile installations and water depth of 100m-300m is now being considered. If this is indeed the result of new substrate surveys, should those areas that were not found to be suitable for renewable energy sites be removed and deleted from further consideration? Shouldn't the map of potential renewable energy areas be updated to display the no-go substrate areas? Can the Minister of renewable give this space back to other ocean users since it is not an amicable spot for turbine placement?
- Another explanation for areas increasing in size is not enough data, not enough information is known yet to determine where many wind farms developments might take place. If we don't have the information yet to determine spatially where these wind development sites should or could be placed… why are we designating areas now? It is disappointing that the information required to further investigate these preidentified areas in the interim report was not provided to the RA Committee or not available for the committee to conduct any further investigations. GCIFA provided information about our fishing footprint although our input appeared in the final draft report, it did not change the boundaries of the PDAs. Is fishing industry feedback not sufficient enough to alter boundaries of PDAs? What industry has the power to implement changes to PFA boundaries? GCIFA feels our input although included in the final draft was not important enough to affect change. The fine tuning of turbine placement comes from developers and if there is no interest from developers, why designate large pieces of ocean space for renewable energy?
- We are forced to choose areas for observation by AIS tracking using software such as Transport Canada's EMSA but given the large PDAs, GCIFA does not have the capacity to monitor over 33,000 km^2 of ocean space. We have fishermen that travel to Sable Island Bank and Misaine, but we had to choose which one to monitor. That was a difficult decision.
- It does not feel like we are any farther ahead in this process by expanding the areas under consideration.
- GCIFA has concerns that there will be no limitations or restrictions in these PDAs for example maximum capacity for a project, maximum number of turbines, capping the number of projects within a PDA, leasing this space out to energy companies when we do not have the data to estimate noise impacts of 4 wind farms in a 431 km^2 PDA. For example, although a PDA may be split into 5 licenses, should there be 5 wind farms in a PDA? How has that worked in other areas of the world? What is the impact of one PDA having all the turbines and the other areas having none? Could this be good for ocean life and other marine users? This is a monumental concern for GCIFA. As we stand to lose

access to thousands of kms of ocean space, since 4 of the 8 potential development areas are off Guysborough County. These 4 PDAs have an area of 7,560 km^2 equalling 756,000 Ha of ocean space.

- Loss of access to our fishing grounds is far from our only concern but operating costs for a fishing enterprise has been rising due to inflation, bait prices, and fuel prices now adding the cost of extra travel to other fishing areas, loosing the most lucrative fishing areas, and possibly an extra cost for monitoring technology could degrade the small profit margins we operate under. Our fishermen are forced to make decisions about whether to participate in a particular fishery or not based on operating costs. This could result in a loss of seasonal jobs for our community and income for our harvesters.
- Marine noise regulations are years away from being implemented. Hopefully by the time construction activities begin we will have marine noise regulations enforced in Canadian waters. The hydrographic survey vessels and technology should also be required to meet maximum noise limit thresholds imposed to protect marine mammals before they begin any field work in Canadian waters.
- Should multiple wind farm projects have construction phases happening simultaneously? Or should they stagger their construction timelines to give mammals an area where they can escape the noise impacts?
- Construction of turbines should not occur during sensitive times of the year, who gets to identify those times of the year? Who gets to have input on when they start construction?
- We were not satisfied with the process used and the request to DFO regarding identifying cumulative effects for the RA committee since DFO's framework is still being developed.
- We believe the Impact Assessment agency's independent committee's directives have been compromised or circumvented. GCIFA were told by the committee that areas were expanded because of unexpected substrate parameters but the final draft mentioned a letter submitted to the committee by the Ministers that directed them to identify more area for renewables. Perhaps this was related to the substrate or maybe it was also influence from developers who want cheaper operating costs by having a lease closer to shore. A transparent process would have complete disclosure of said letter uploaded onto the impact assessment agency's website for public view. We searched but could not find this document.
- The RA committee were supposed to identify enough marine space for 5GW of renewable energy. GCIFA was informed that the 6 preidentified PFDA's would be reduced in size to accommodate the 5GW which equaled approx. 2,000km^2 of ocean space.
- A great document which highlights other fishing industries experiencing the same impacts as Nova Scotia. Spatial Squeeze in Fisheries: Final Report, June 2022. ABPmer, (2022). Spatial Squeeze in Fisheries, Final Report, ABPmer Report No. R.3900. A report produced by ABPmer for NFFO & SFF, June 2022.

- How is the fishing industry a secondary constraint? Can you imagine, a man looking to purchase land for farming purposes and selecting all the fertile lands first, disregarding whether that land is for sale or not, and whether someone already uses it, not owning the land, and making decisions first about the cost of materials and taxes, then considering someone already lives there as a secondary constraint? Completely backwards method of conducting marine spatial planning.
- Eastern Shore PFDA has now been renamed French Bank. This new PDA is over twice the area that was identified in the interim report. We, the fishing industry through NSFAEE identified an area just 10km farther offshore and to the left of the pipeline corridor as a low conflict area. This was to our detriment. Now this area has been swallowed up by the French Bank PDA and we shot ourselves in the foot by even participating in this process. We sent information to the RA committee detailing a sustainable and expanding halibut fishery with landings highlighted on the DFO Atlas just north of the "Eastern Shore PFDA" It seems this information was ignored. It should have protected that area from being identified as a potential place for a renewable energy project. This high fishing area was not identified as a potential development area in the interim report. It is a new marine space that has been identified in the final draft report. High halibut and snow crab landings that we were trying to protect, were not within a PFDA but were just outside the boundary. Now ARE inside the new PDA of French bank. GCIFA is disappointed our input was disregarded.
- We feel the fishing industry should have refused to participant in this engagement process and we regret having spent hundreds of hours of our resources on this file. Our input and feedback fell on deaf ears. The Ministers voices are clearly louder and more important than the fishing industries who have provided and still remain the main economic driver of the economy in this province.
- GCIFA have not benefitted from this engagement process and actually feel betrayed, mislead and deceived.
- We are pleased to see the Emerald bank PDA identified as portions of this area are closed to fishing and has been identified as a low conflict area. The unused portion of this ocean space can accommodate more than 5 GW of renewable energy projects therefore there is no need to identify other ocean spaces and disrupt the fishing industry from one end of the province to the other. If one of the goals is in fact to minimize conflict with other ocean users, placing the 5 GW in this one PDA may be a way to do that.
- Recommendation T2-6: "Establish targeted immigration and recruitment programs to attract foreign specialists." This province is experiencing a housing crisis. Small coastal communities have been affected as well as the larger cities. Small coastal communities for the most part do not have apartment buildings and have very limited housing options. We hope our provincial government as well as municipalities do their part to prepare for the offshore wind construction phases, which would create most of the jobs associated with this new industry with respect to housing temporary or permanent workers in areas

close to the port activity and renewable energy sites. Our coastal communities continue to struggle to recruit healthcare workers due to our lack of housing options. Otherwise, economic spin-offs will go to other counties that have the aforementioned services.

- Our suggestions about how to decrease the previous PFDAs has been included in the draft final report. We are glad that our advice is in the final RA draft. We hope this information is considered when determining where leases will be designated within a PDA. We wonder who will have input on where these leases are placed….
- A buffer surrounding high fishing areas was suggested by NSFAEE and GCIFA to protect the fish stocks and our livelihood on the edges of PFDAs. This advice does appear in the draft, which is great. Now that the boundaries of the PDAs have changed, we will have new advice as to how to avoid high fishing areas within and around the new PDAs. We do not have the time to investigate thoroughly our activity within these new areas. Therefore, we cannot comment on how to divide them up at this time. Fishing industry input is expected on future discussions regarding where leases should be placed within a PDA. It is worth nothing that from the DFO commercial landings data layer on the Atlas, (which does not highlight all fishing activity) it displays high fishing activity all along the northeastern corner of the French Bank PDA. This PDA runs along the 25km buffer for a distance of over 40 km from Sonora to New Harbour, NS. This will affect coastal communities that encompass this stretch of coastline, commercial fishermen within these communities and also commercial fishermen from other areas of Nova Scotia that travel east/west to fish their groundfish quotas and snow crab licenses in these coastal waters. A wide scope must be used to assess fishermen's impacts. A conversation with local fishermen from New Harbour or Goldboro will not suffice as other fishermen who do not reside within the project area will be impacted. GCIFA will continue to monitor our fishing activity within the four PDAs closest to our coast.
- It would seem other industries such as DND are not willing to incur extra costs to use ocean space farther away from their home base of Halifax. It is not the job of other industries such as the military to assess impacts of other ocean users, but we did expect respect and consideration from our military for our harvester's way of life, which has held up the economy in this province for decades. DND would rather costal communities suffer rather than moving naval exercises to the west or east. The military are not fixed to a specific bottom type like the commercial fishing industry is.
- Below are the recommendations suggested by GCIFA in our first submission to the RA:

  - We need a framework for mitigating impacts for commercial and recreational fishers.
  - We need community benefits guidelines
  - We need an EA process that deals with cumulative impacts for surveys, construction, increased vessel traffic, infrastructure both marine and land based.

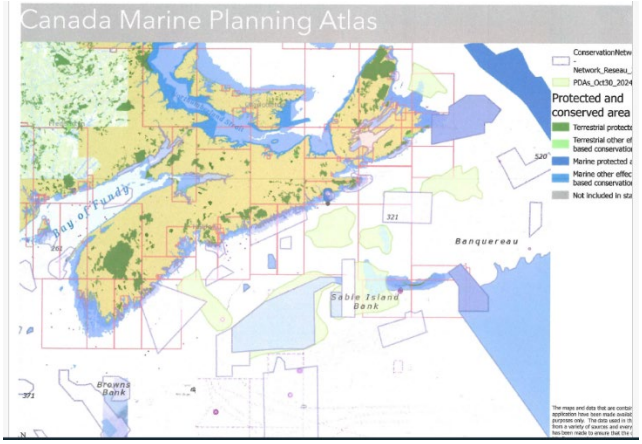
- We need documents on best practices, setting threshold noise levels, lessons learned from other countries etc.
- We need fisheries liaison groups/board/committees to deal with project specific fisheries interactions and communications between industries reps and renewable energy companies.

We are happy to see many of these recommendations in the final draft of RA report.

- In the past our municipality has taken the reins when it comes to community benefits packages from economic development. For example, a financial incentive was offered from the proponent to their employees to encourage new home purchases within the county. GCIFA has no information regarding how beneficial this 'community benefit' was or if it did not materialize the benefits that were expected. A project being years away from operation has resulted in the delay of any benefit coming to fruition. This could also happen with offshore wind projects, with millions of government money being spent without the final investment decision coming from proponents could equal a large waste of taxpayer dollars.
- Page 21 of the final draft report. Socio-economic Impacts. "The committee has struggled to adequately identify what the benefits and disadvantages of offshore wind development may be for Nova Scotia." Nova Scotians deserve to know before we jump in with both feet. Taxpayers should have knowledge of the government investments required and the benefits to residents of this province. These benefits and costs should be known by now, they should be easily assessable to the public. A small province with one million people's clean energy needs are substantially small comparatively to other provinces and states. The billions of dollars of financial benefit of producing clean energy for other countries and Provinces/States should benefit all Nova Scotians in many ways, the least of which is temporary construction related jobs. If foreign companies want to profit off our natural resources, they should be required pay a hefty levy or tax. Our government and the energy companies are risking destroying the integrity of our ocean to produce energy for other nations. Nova Scotians will take all the risk and could see no benefits.
- GCIFA recommends all port renovations, upgrades and new infrastructure required for this new industry be required to file documents with the federal Impact Assessment Agency for full federal environmental assessments.
- Coastal communities rely on wild caught fisheries to provide economic prosperity. Having no academic institution in Guysborough County; no post secondary training institution whatsoever in Guysborough County could exclude our residents from benefitting from new training and ultimately entering the workforce related to offshore renewable energy sector. How can NRCAN fix this, where are our politicians on this topic, Municipality of the District of Guysborough? GCIFA request a number of seats be reserved for coastal communities adjacent to any wind farm project with a special

attention to mariners who are/were employed in seasonal fishing employment positions. We have large numbers of seasonal employment in Guysborough County. This results in a high unemployment rate compared to other counties in Nova Scotia. If this new economic development can offer employment during closed fishing seasons, then that would be a positive impact for our communities.

- The image below is a map of the conservation network areas proposed by Fisheries and Oceans Canada and the eight potential development areas for renewables. If our harvesters are going to be continue participating in wild caught fisheries we need consideration for our workspace. We need to be afforded the respect, time and resources for adequate consultations on these recent PDAs. We currently have no idea where energy leases will be offered within these large PDAs. Bids for energy leases could be announced by the CNSOEB in the coming months. This is a colossal concern for our harvesters.



We would like to thank the members of the RA Committee for their devotion to this directive. We appreciate all the extra effort the committee has shown to encourage consultations with the fishing industry.

Sincerely,

Melinda Cole, Biologist

Virginia Boudreau, Executive Director

Ken Snow, President

Guysborough County Inshore Fishermen’s Association

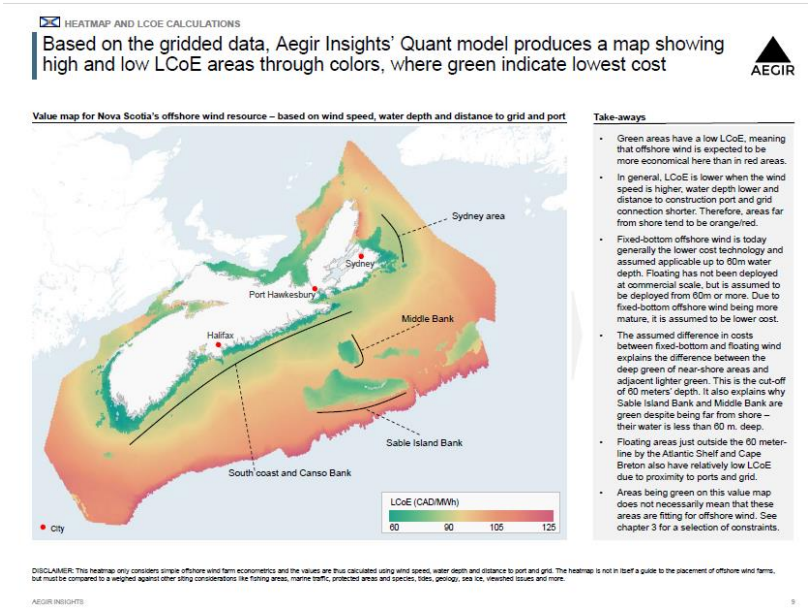
Canso, Nova Scotia

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This document contains images displaying spatial data relevant to the commercial fishery of members represented by the Guysborough County Inshore Fishermen's Association. Images are screenshots of qgis mapping shapefiles displaying our members fishing grounds as well as screenshots of the DFO ATLAS commericial fishery layers important to Eastern Nova Scotia seafood harvesters.

Fig.1 Image published by Net Zero Atlantic produced by AEGIR displaying low cost of energy based on wind speed, water depth and distance to grid.



The Guysborough County Inshore Fishermen's Association are anticipating the federal and provincial governments are not going to place renewable energy projects at the lowest possible cost of energy production for the foreign owned energy conglomerates at the economic loss of another industry. A sustainable seafood industry that contributes to our provincial GDP exports millions of dollars in Nova Scotia each year. The harvesting of this seafood occurs mostly within the green and yellow areas of above image. The yellow and orange areas highlighted in the above image are still feasible for offshore wind just at a slightly higher cost. A new industry that is asking to share space with an existing billion-dollar industry operating in the same space will have to take the area left unused by the other users. Canada has an obligation to ensure this new industry is strategically located to mitigate conflict with other ocean users, is placed in a space that makes practical sense for all stakeholders and causes the least impact to the marine environment. When siting potential renewable energy projects, if placed in the yellow or orange areas, the construction phase of any renewable energy project and maintenance vessels will still travel through lucrative fishing areas and transmission cables will disturb the seafloor. Our fishermen will be impacted but to a lesser degree than if the wind farm was placed closer to shore within our fishing grounds.

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The image below highlights areas that are low cost for renewable energy development but are also areas of high ecological and biologically significant areas as displayed on the DFO ATLAS. The impact of converting all or most of these ecologically significant areas into wind farms would be the end of small fishing community's livelihood, the drastic decline in seafood exports, losses of jobs associated with the harvesting and seafood processing sector, significant losses of biodiversity on the banks/underwater reefs and potential loss of food sources for migrating fish and mammals. Marine communities gather in large numbers around reefs and banks. That's why they are so ecologically important not only to the habitat and well being of marine species but also to our commercial fishing businesses. These banks may be ideal cheap places to install wind turbines, but the truth is these banks are important intrinsically and economically to Nova Scotians.

Fig.2. Image published by AEGIR and again in the document "Catching the Wind" by Peter Nicholson.

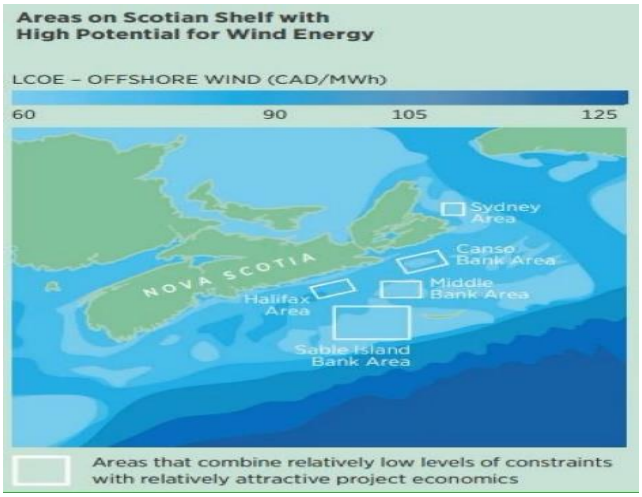
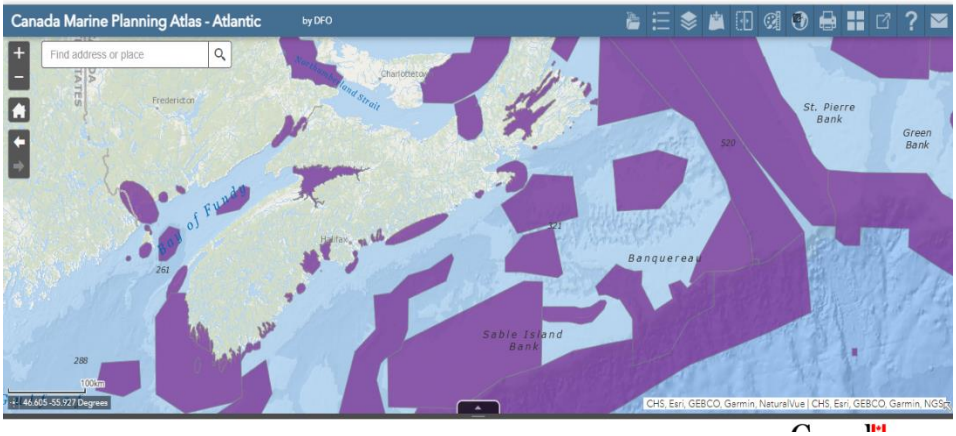


Fig 3. Purple shaded areas are important ecological and biological areas, DFO Atlas

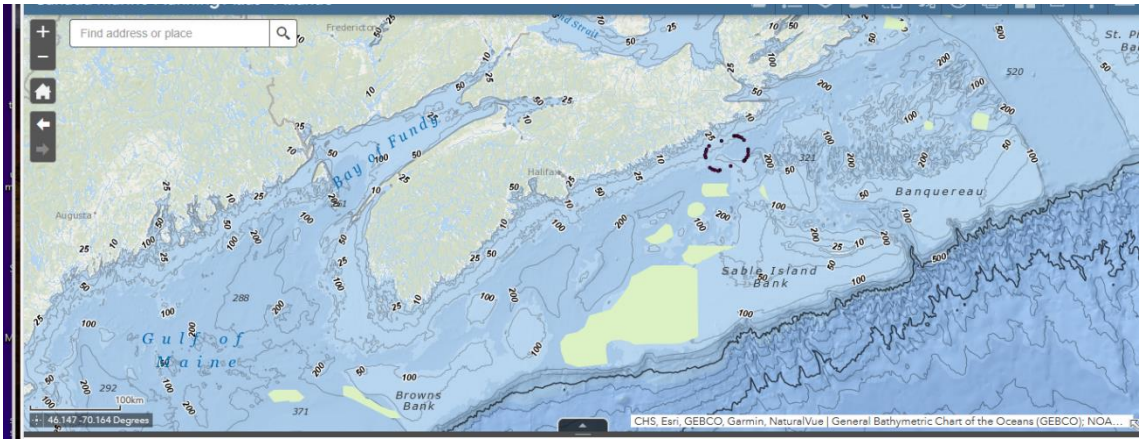


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Guysborough County Inshore Fishermen's Association supports the Nova Scotia Fisheries Alliance for Energy Engagement (NSFAEE). We have attended meetings and participated in the NSFAEE's discussion surrounding low conflict fishing areas. The image below highlights areas of low fishing as agreed upon by the alliance. We do not support the placement of a renewable energy project approx. 25km off Goldboro, NS (highlighted in the image below by location markers). We are aware that this area has been selected by a renewable energy proponent for investigation. GCIFA does not support this project. Our fishermen use this space, it is economically important to our coastal communities. This "study area" barely excludes our inshore lobster fishery. This study area is extremely large. We ask should one renewable energy proponent be granted this much ocean space? This study area is orders of magnitude larger than required for a renewable energy project. Granting renewable energy seabed leases that are 10 to 200 times bigger than what is needed compounds impacts to other marine users. Lease sizes should correlate to the size of the space required for turbines and anchors only.

Fig. 4.



Guysborough County Inshore Fishermen's Association and its members cannot continue to conduct our seafood harvesting at our usual locations if this area of ocean space is designated as a renewable energy site. Many many fishermen would have to relocate, which would impact other fishermen compounding impacts. The loss of income from this lucrative snow crab and lobster area would be a devastating loss to our coastal communities.

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Fig. 5.

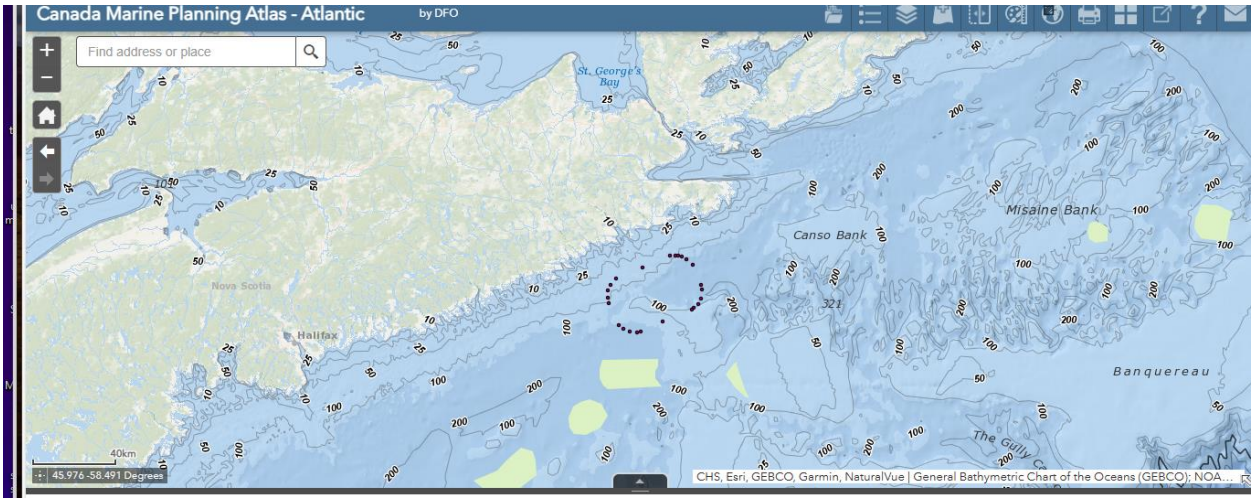
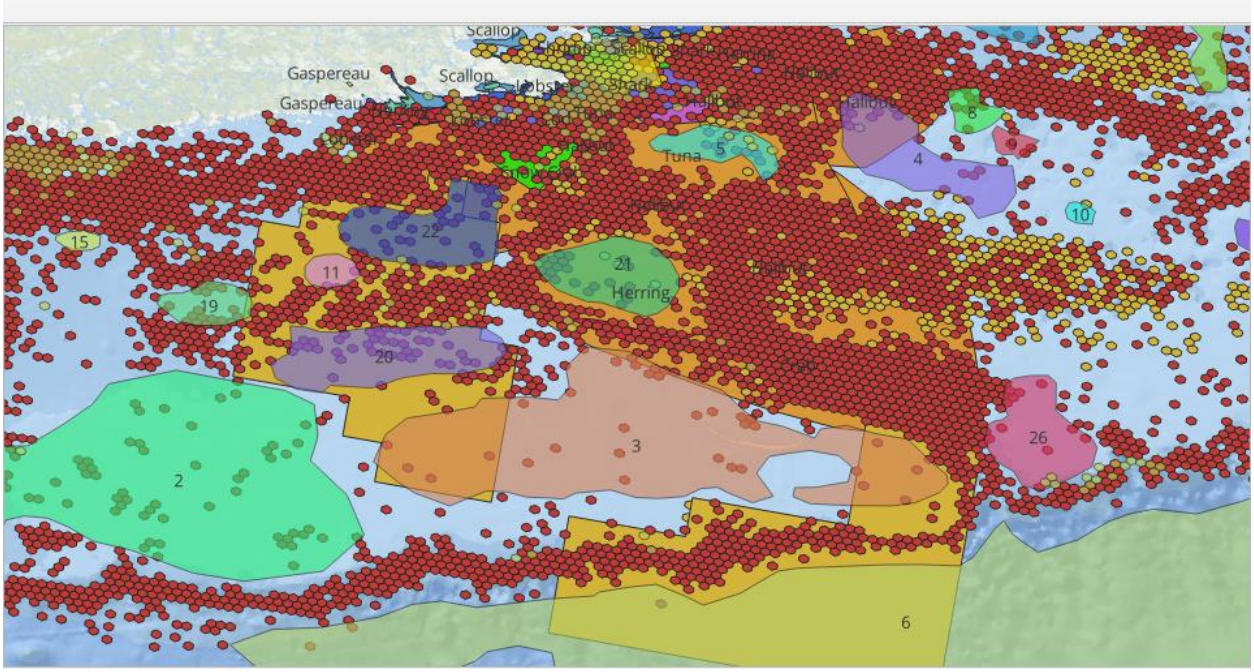


Fig. 6. Red dots are halibut landings, low conflict areas numbered polygons, with privacy screen fishery data.



There are many oil and gas leases that are dormant with no intention of hydrocarbon extraction in the future. These areas should be thoroughly investigated as areas for renewable energy development sites, fig 7.

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Fig 7.

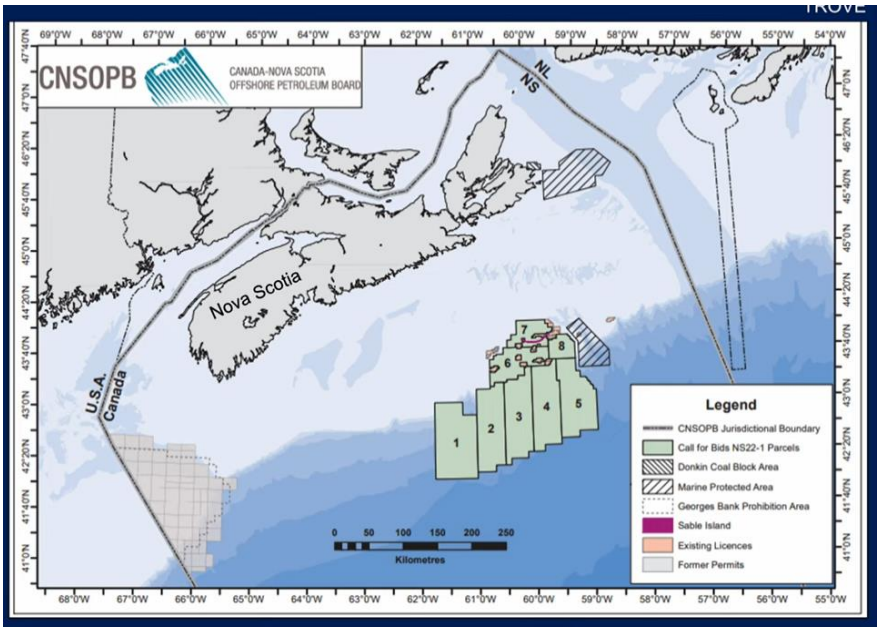
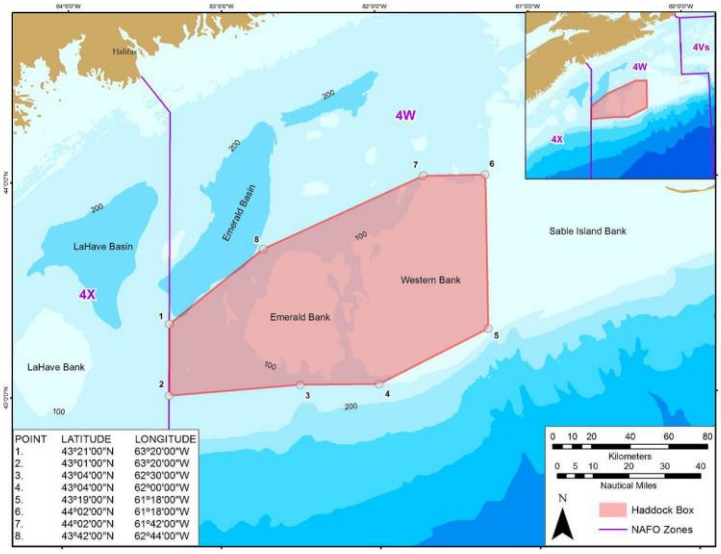


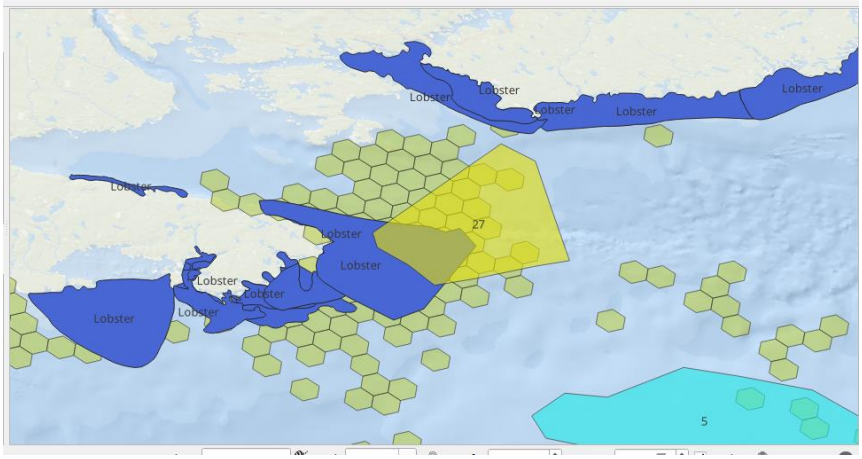
Fig 8. Emerald Bank Conservation Area, previously known as the haddock box is over 10,000km^2. We would like to suggest this area be developed for offshore wind energy projects. It is already a fishing closure area therefore designation as a renewable energy site would not affect the commercial fishery.



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Fig 9. Bluefin tuna (green hexagons) and inshore lobster fishing activity (blue shaded area), see below image.



Some fisheries that occur on or near Canso Bank, identified as #5 Low Conflict Area, are not shown on DFO Atlas because fishermen fish the edges of the bank as these are areas of high biodiversity and highly productive habitat for marine fish, so often times there is high activity surrounding the bank with less in the shallower part of the centre of the bank. The fishing fleet is so small in this end of Nova Scotia compared to other regions, that the fishing activity may appear low comparatively. Most vessels are under 40 feet and thus are not required to carry VMS recorders. Several layers of data incorporated into the Atlas are from VMS sources. The fishing activity that occurs within this Low Conflict Area (Canso Bank) may appear low, but it is critical to sustaining our small coastal communities.

List of fisheries that occur on or near Canso Bank

Halibut - there is fishing activity landings for halibut in Low Conflict Area #5 Canso Bank, fig. 10.

Fig 10.

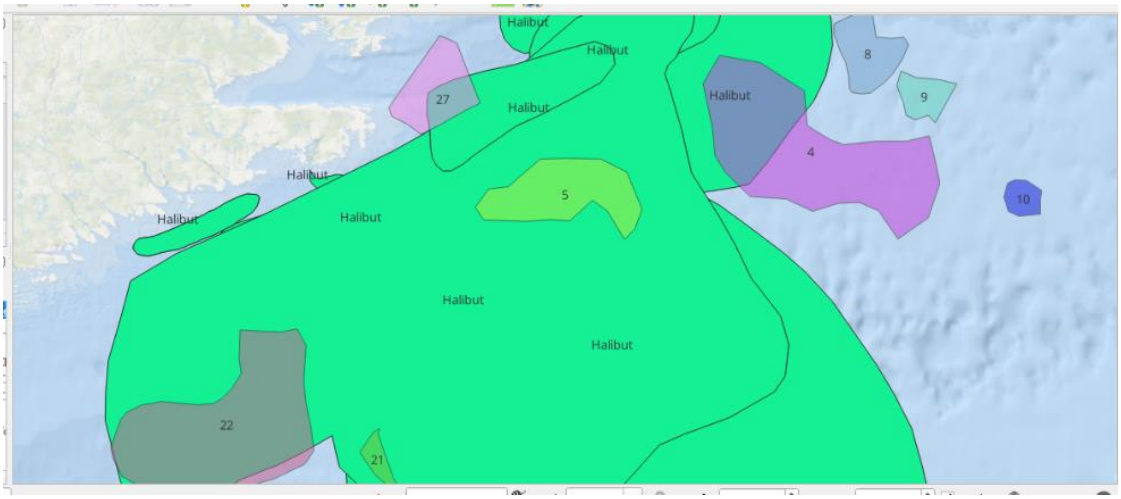


Guysborough County Inshore Fishermen's Association have highlighted local halibut fishing areas in the image below.

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Fig 11. Halibut fishing areas, Guysborough County



Bluefin Tuna - there are bluefin tuna landings displayed on the ATLAS within Low Conflict Area #5 and we expect more in the future. There were 398 tunas landed in Canso during the 2023 season so far (ongoing), is a record year, more than double compared to last year. The location of this fishery is Low Conflict Area #5 and #27. We expect there will be high tuna landings from the Canso Bank area from this year's data and into the future.

Greysole/Witch Flounder fishing data is privacy screened on Canso Bank therefore it does not appear on the ATLAS.

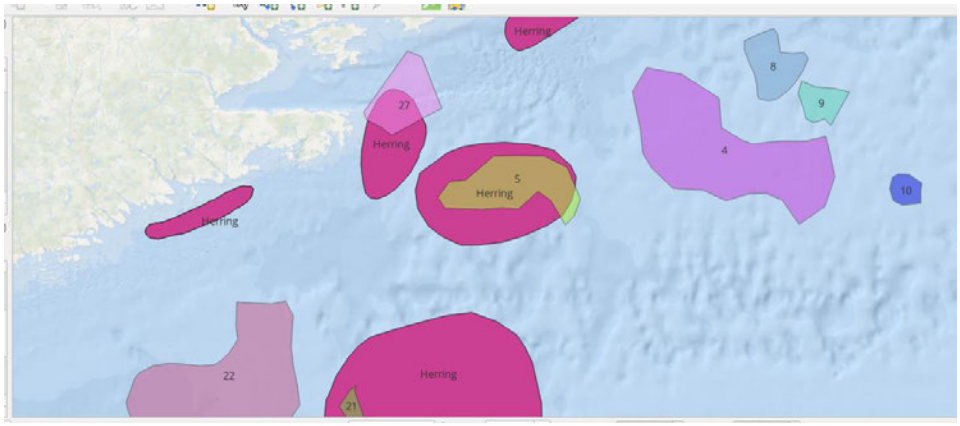
Haddock fishery data is also privacy screened on Canso Bank therefore it does not appear on the ATLAS.

Herring fishery, our herring fishery data on Canso Bank is privacy screened therefore it does not appear on the ATLAS. Historically and up until recently the herring fishery only recorded HFA19 or HFA20 as the fishing area, no data on locations were recorded. Herring are very sensitive to light and sound. Guysborough County Inshore Fishermen's Association has spatial data displaying several herring fishing spots. See image below, fig 12.

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Fig. 12.



Silver Hake, also privacy screened within Low Conflict Area #5 Canso Bank.

Snow Crab, high intensity of snow crab landings are caught around the exterior and surrounding Low Conflict Area #5 Canso Bank as well as fishing that occurs on Canso Bank. This is a really important area to this species. Snow crabs are very sensitive to benthic disturbances and will vacate an area if unsuitable environmental conditions occur. Canso Bank is economically valuable to fishermen in Eastern Nova Scotia. Disturbing this area would likely cause these snow crab landings to dissipate. Their primary food include shrimp, fish (capelin and lumpfish), starfish, sea urchins, worms, detritus, large zooplankton, other crabs, ocean quahaug, molluscs, sea snails and sea anemones. Snow crabs are vulnerable to benthic disturbances and water quality fluctuations. Environmental contaminants such as metals and pollutants held within the sediment layer of the seafloor has the potential to negatively impact this species. Snow crabs prefer cold water temperatures and occur at a wide range of depths, from 20 to 2000 metres, most often on sandy or muddy bottoms. This snow crab fishery provides income and jobs to our local economy. https://www.dfo-mpo.gc.ca/species-especes/profiles-profils/snow-crab-crabe-neiges-atl-eng.html

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Fig 13. Snow crab landings displayed on ATLAS around Canso Bank

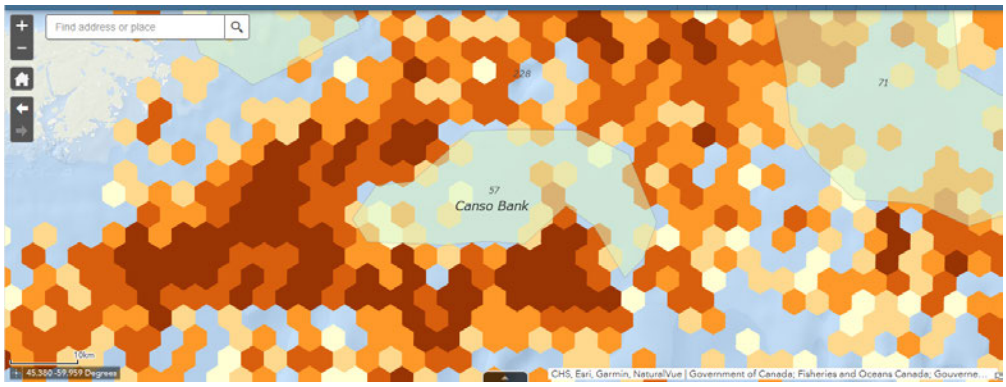
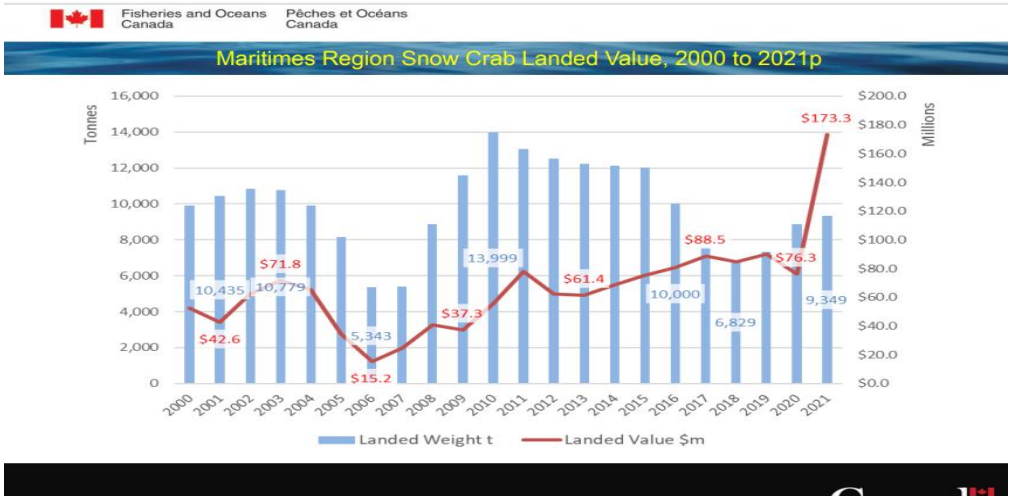
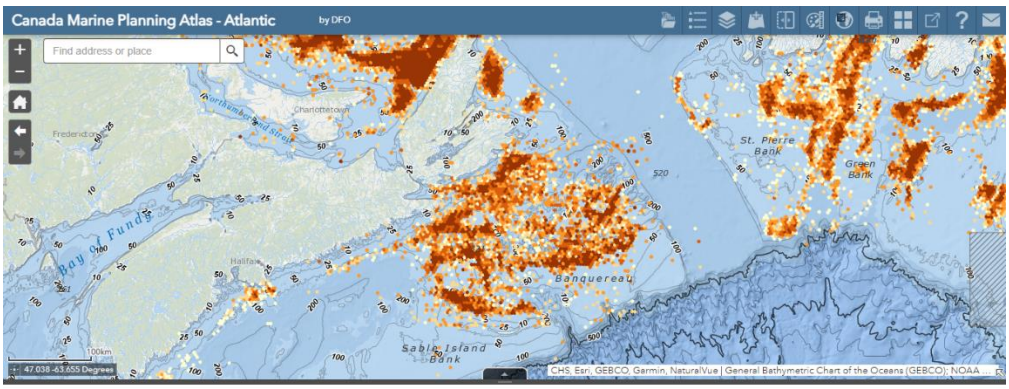


Fig 14. Image below is Maritimes region snow crab landed value.



To display where that dollar value of snow crab comes from, see image below, Eastern Nova Scotia.

Fig. 15. Snow Crab landings from ATLAS



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Shrimp fishing occurs on the northern edge of this Low Conflict Area of Canso Bank. These landings are displayed on the DFO Atlas. Shrimp are also identified as a food source for the snow crab in the area.

Redfish – Canso Bank is under a privacy screen for redfish landings.

Swordfish – Canso Bank is under a privacy screen for swordfish landings.

Whelk Fishery – There are two licenses for whelk, near Canso. No data for landings as it was up until recently an experimental fishery.

Middle Bank identified by AEGIR report is a high fishing area for fishermen in the northeastern part of Nova Scotia. Low Conflict Area #21. Landings are not recorded as displayed on the DFO atlas because it is a small fleet comparatively to other more densely populated fishing ports in Nova Scotia. The nautical chart below as well as the image above for herring displays that herring fishery and halibut fishery occurs in the area known as Middle Bank, Low Conflict Area #21, Fig 16. The DFO atlas displays shrimp, halibut, snow crab and scallop fishery data within this Low Conflict Area. We also have snow crab fishermen that travel through this area to get to their snow crab fishing grounds.

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Fig 16.

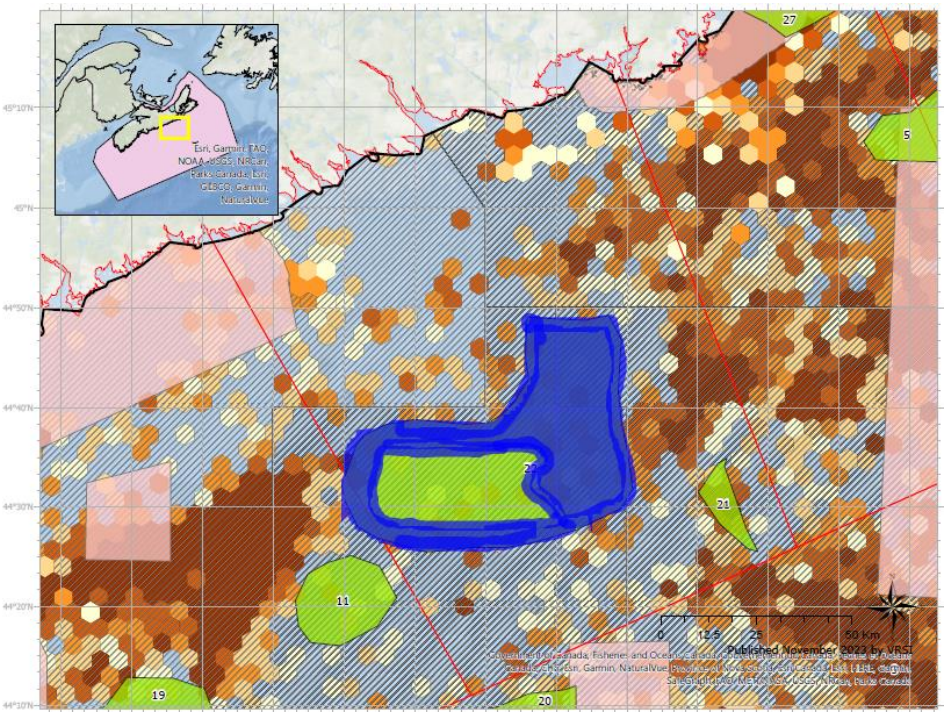


An area highlighted as Halifax area in the AEGIR report is not close in proximity to the city of Halifax. See image below. Its unclear exactly where this location is. We would assume it is within Low Conflict Area #22. It is stated in the AEGIR report that there is fishing activity areas close by. We assume it has only been identified because of the close proximity to shore which would result in low cost of energy production. The DFO atlas displays halibut landings, hake, swordfish, snow crab and bluefin tuna within this Low Conflict Area #22. Privacy screened flounder landings and Whelk. Privacy screened fishing data for shrimp occurs here within Low Conflict Area #22. To create a buffer around high fishing density areas, we have suggested to cut down the size of this Low Conflict Area #22. There are still fishery landings within this LCA that would necessitate compensation. We are concerned that if we delete this LCA #22 completely then an energy proponent will be given their preferred previously identified “surveyed area” closer to shore directly in a high snow crab, hake, hagfish, cod, halibut, scallop, shark and bluefin tuna fishing area.

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Fig 17.

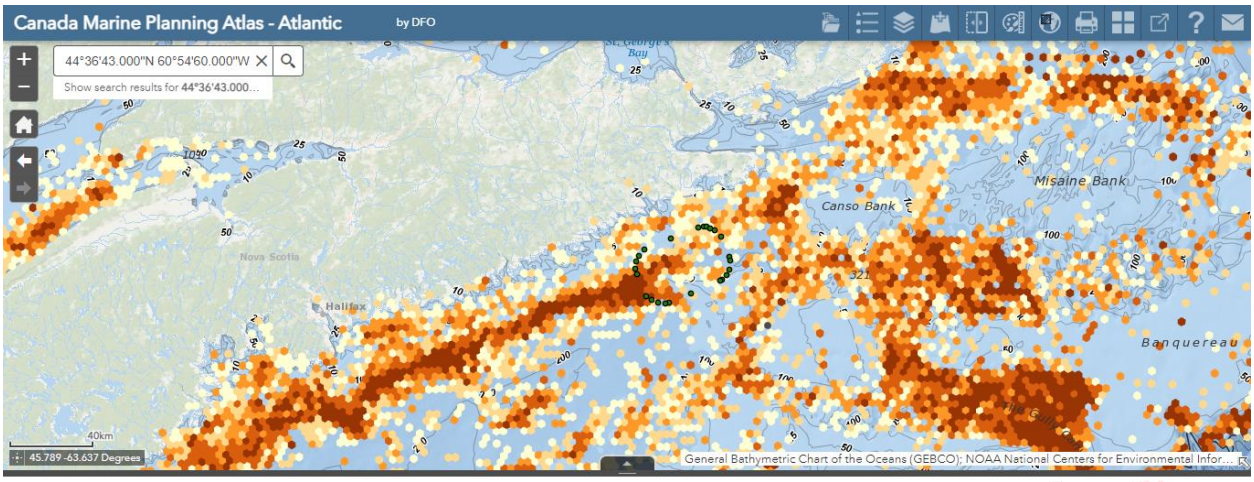


Halibut landings within a renewable energy proponents “Study Area” is highlighted below, fig 18. The savings a renewable energy company would gain by leasing an area closer to the coastline, will disappear through compensation for taking this valuable halibut and snow crab fishing area. The gains from going closer to shore are not going to be realized. The DFO ATLAS displays fishery data in weight, a dollar value can be placed on each of these hexagons for each fishery. Compensation will include future economic losses into perpetuity. The cost of compensation of these two fisheries alone (halibut and snow crab) within this space erases any financial advantage the proponent would have by placing the project there.

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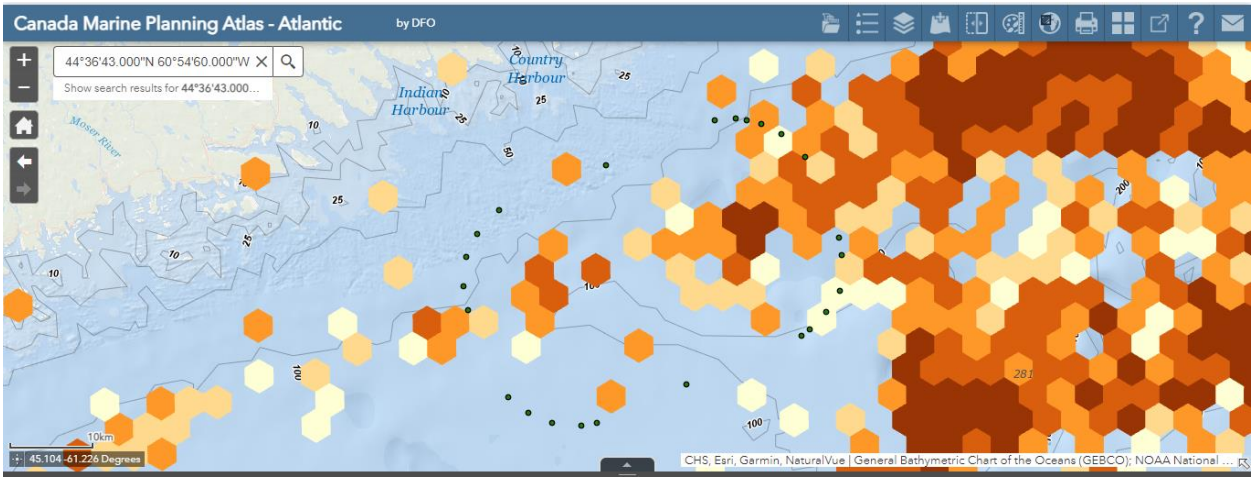
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Fig 18. Halibut landings



Snow crab landings with renewable energy proponent “study area” highlighted is below, fig 19.

Fig 19. Snow Crab landings



This “study area” also encroaches on bluefin tuna fishery activity as displayed on the ATLAS and the inshore lobster fishery is currently setting traps only 5km away from this study area. We expect the inshore lobster fishery to expand its range in the future years due to climate change.

Low Conflict Area #27 – The mouth of Chedabucto Bay is not a major bank that has been identified so we have not included an explanation of this area to the fisheries alliance. A major shipping lane runs through it and even more fishing occurs here than the lucrative fishing banks nearby. We have more information about this fishing area if required in the future.

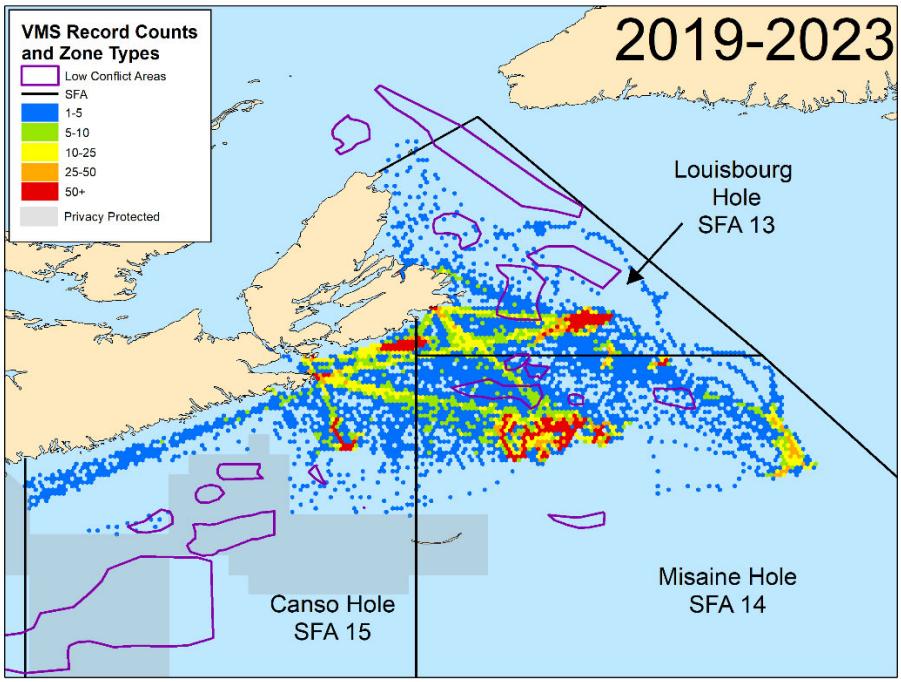
Image below is mapping historical fishing patterns relative to proposed areas of “low impact” VMS data has been used as opposed to logbook data thinking it better captures the length of

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tows, and the coming and going steaming patterns to the fishing grounds. Shrimp Fishing areas, Fig 20 and 21.

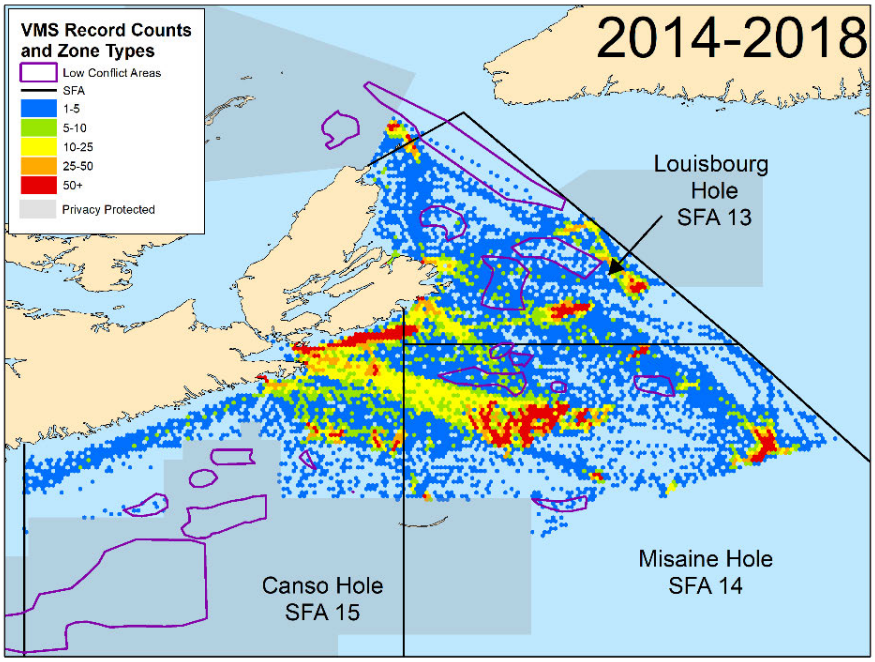
Fig 20.



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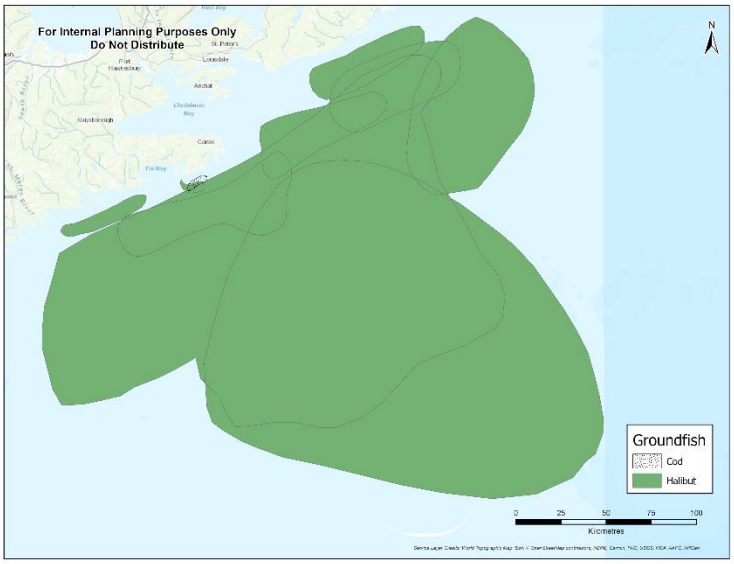
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Fig 21.



The images below display some of our members fishing areas for crustaceans and groundfish.

Fig 22.



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Fig 23.

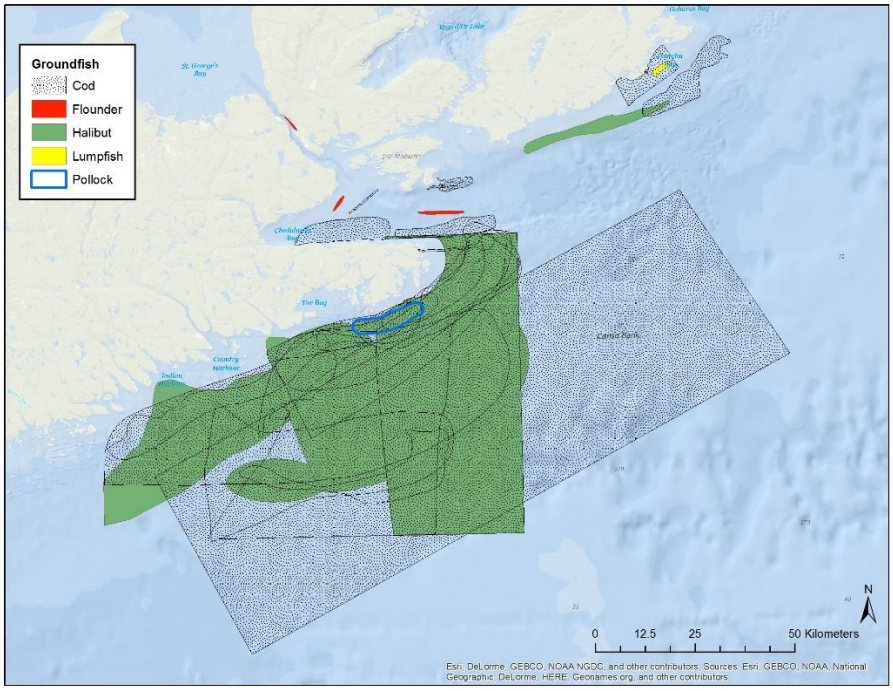
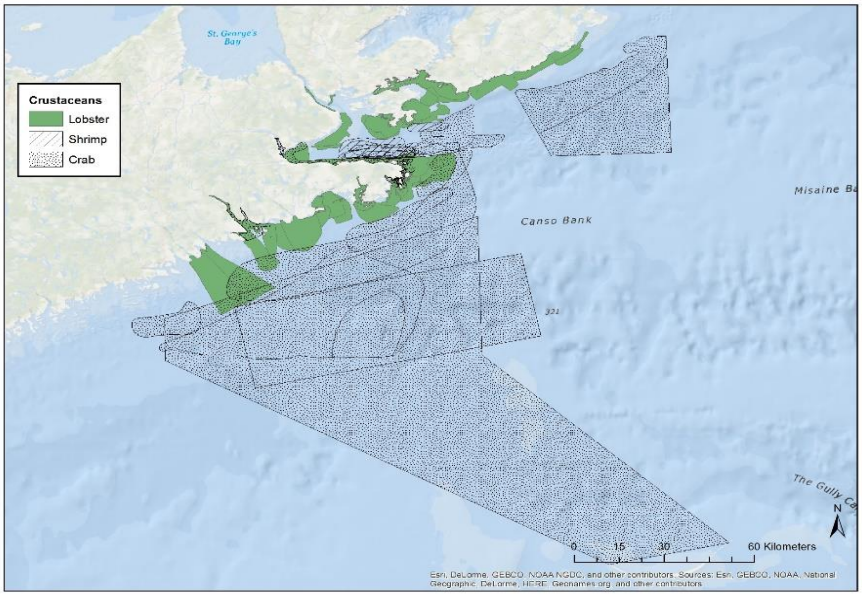


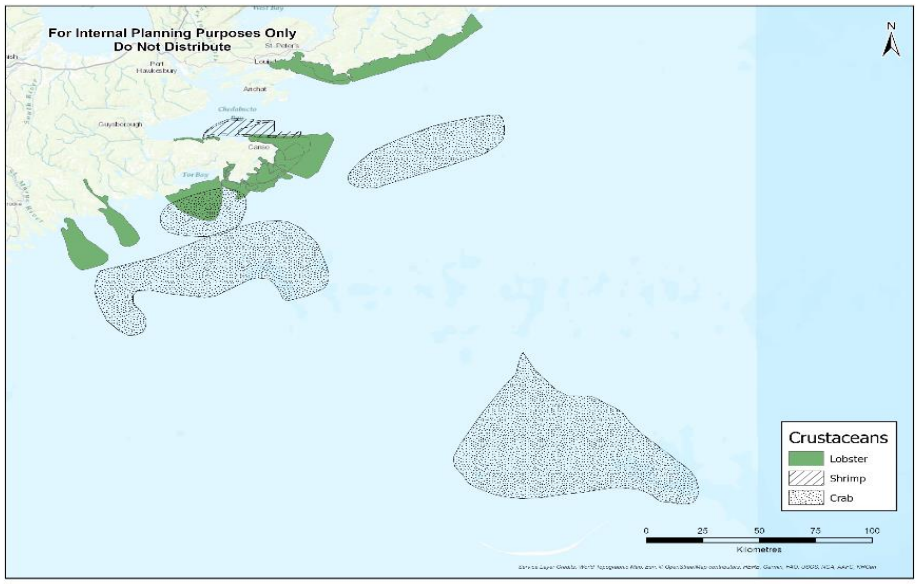
Fig 24.



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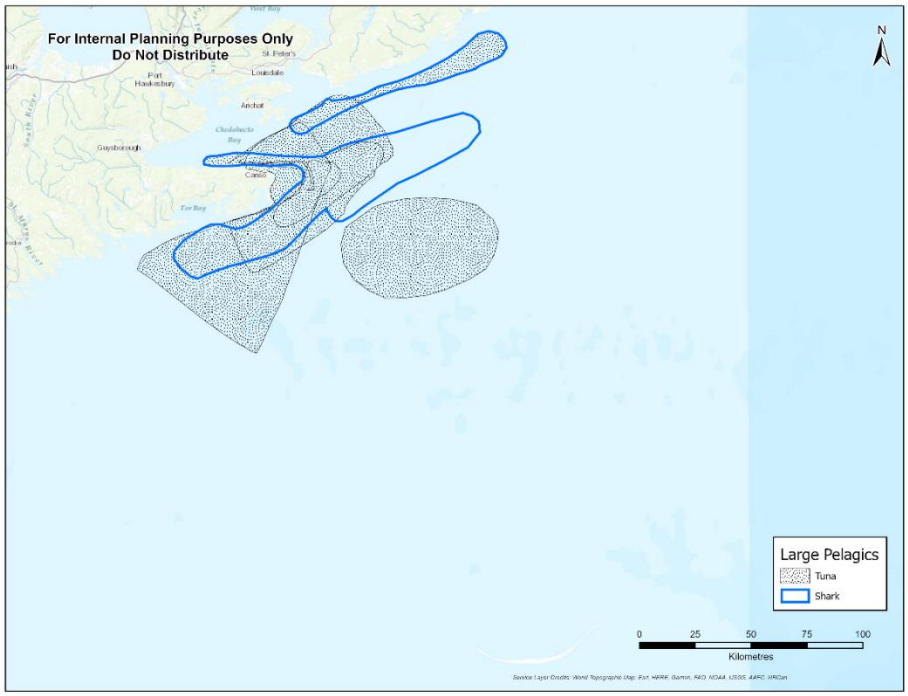
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Fig 25.



The images below displays some fishing spatial data for large pelagic fish species in the Canso area. Bluefin Tuna and Shark. It does not display data from fishing boats that travel to this area to fish from PEI, Cape Breton and the gulf NS.

Fig 26.



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Fig 27.

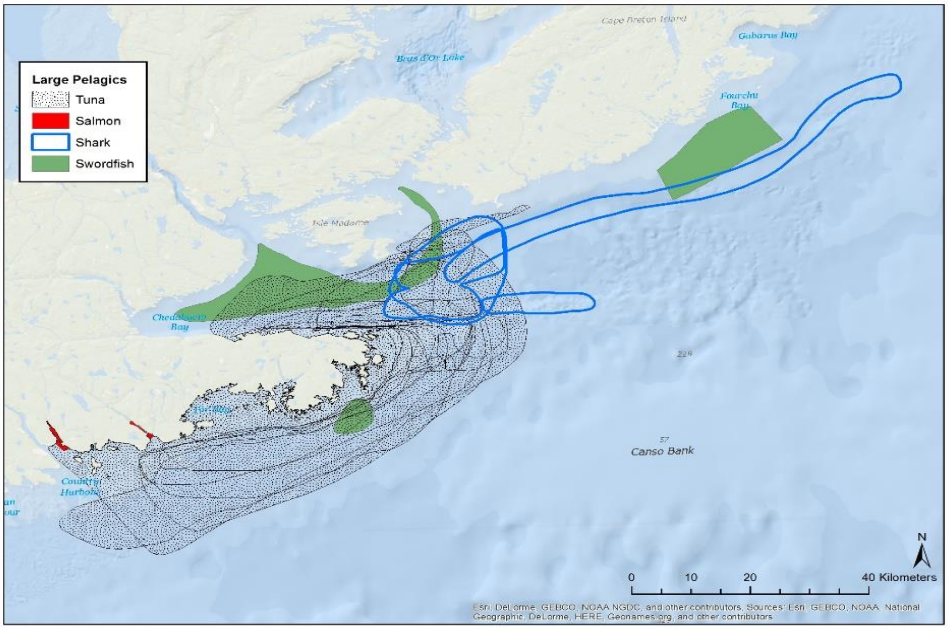
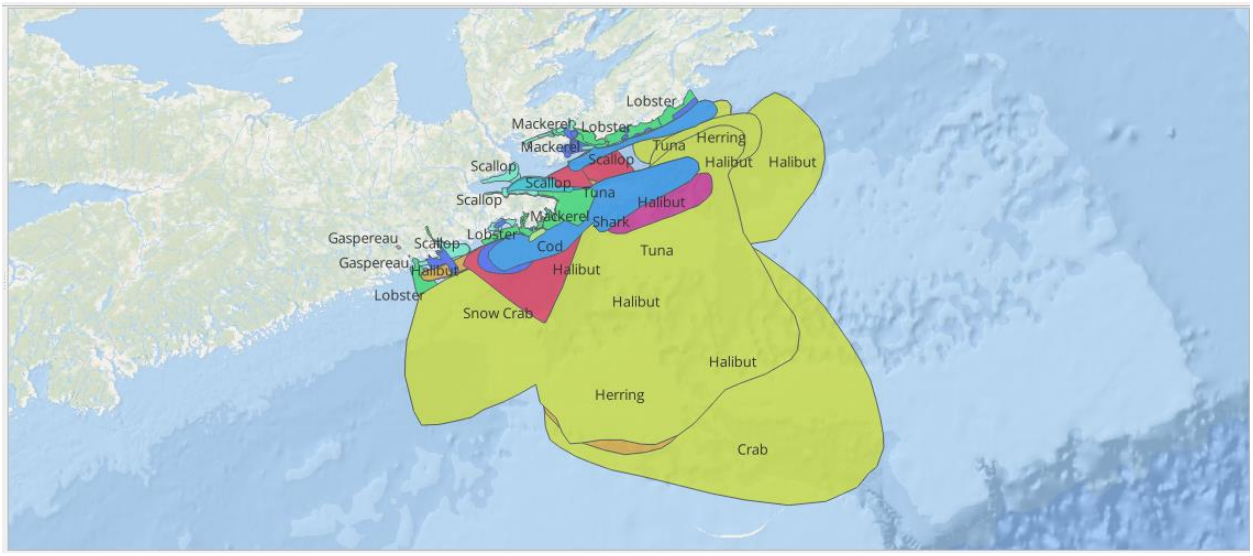


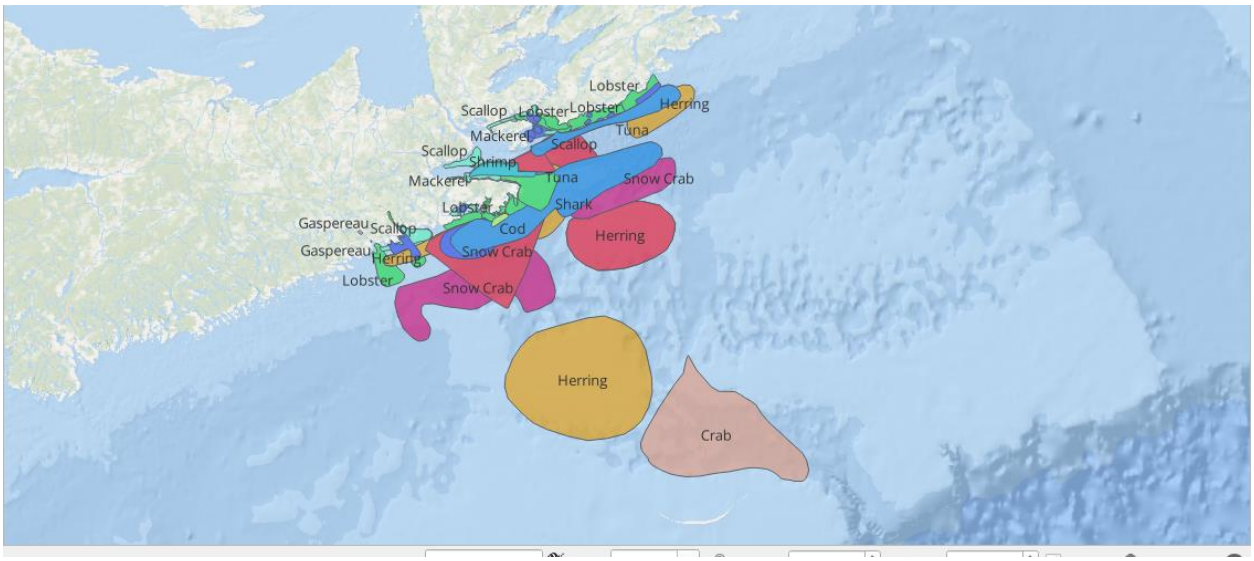
Fig 28.



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Fig 29.



Designating Canso Bank as a potential area for renewable energy development would be a devastating loss to fishermen in eastern Nova Scotia. Many fishing boats from Cape Breton travel southwest to this area to fish. Many fishing boats from the Halifax area travel east to fish this area. Fishing boats from PEI and the Gulf NS travel to this area each year to fish Bluefin Tuna. Snow crab area CFA24 is from Fourchu (Cape Breton) to Pennant point near Sambro but most of the snow crab landings are occurring in the eastern end of this CFA, see Fig 13 and 15 for snow crab landings displayed on ATLAS. Converting this area to a renewable energy site will impact hundreds of fishermen's business from Sambro to Cape North, PEI and the gulf NS. It doesn't make sense to place a wind farm in such a high fishing area when there are areas just farther east that have lower fishing activity that have just as much wind resource. The cost savings that would be gained from placing wind farms in the Canso bank area would be lost through compensation of future fishery landings within the area. Guysborough County Inshore Fishermen's Association struggles to balance our communities need for renewable energy with our reliance on a healthy ocean ecosystem. We will continue to support our coastal communities by the sustainable harvesting of a healthy food source for Canadians supporting UN SDG 2 and 14.

Literature Review Offshore Wind Renewable Energy

This document has been prepared by the Guysborough County Inshore Fishermen's Association for aiding the regional assessment for offshore wind in Nova Scotia. It contains a collection of published literature pertaining to offshore wind energy developments. We have included the Title, Authors, Abstracts, with some commentary following of an explanation of why this article is important to us. Many of these studies identify data gaps and areas where further research is needed. Other policy related documents are included as a substitute for a Canadian version which will need to be prepared going forward. Separated into categories as follows:

Categories

1. Fishing interactions
2. Compensation/Mitigation of fishing industry
3. Ecological impacts
4. Acoustic impacts
5. Electro magnetic fields/power cables
6. Socioeconomic Reports

1. Fishing Interactions

Changes to fishing practices around the UK as a result of the development of offshore windfarms – Phase 1 (Revised). Mark Gray, Paige-Leanne Stromberg and Dale Rodmell. Gray, M., Stromberg, P-L., Rodmell, D. 2016. 'Changes to fishing practices around the UK as a result of the development of offshore windfarms – Phase 1 (Revised).' The Crown Estate, 121 pages. ISBN: 978-1-906410-64-3. The aim of this project was to determine if, and if so, to what extent and why, fishing activity has changed within the six operating offshore wind farms (OWFs) and export cable routes in the Eastern Irish Sea. Since 2000, there has been a large reduction in fishing effort and landings of demersal finfish, which was attributed to a reduction of Total Allowable Catch (TAC) and not to the installation of OWFs. Although landings of Nephrops from the Eastern Irish Sea remained fairly stable during the period before and after OWF construction, VMS data showed a decline in Nephrops trawling following the construction of Walney 2. Confidence in the evidence that suggested a decline in all types of fishing activity in the other OWFs was low to medium. Findings suggest that fishing activity within OWF boundaries has changed, primarily because fishermen are fearful of fishing gear becoming entrapped by seabed obstacles such as cables, cable crossing points and rock armouring, and wary of vessel breakdown with the consequent risk of turbine collision. Wind farm maintenance work was claimed to cause disruption to fishing (for example interrupting tows) and increasing steaming distances to fishing grounds, although fishing is not prevented within OWFs**.** The relationship between fishermen and wind farm developers and their service companies was often described as poor in terms of communication and information exchange. However, fishing was found to co-exist with OWFs. A small number of fishermen claimed to operate

demersal trawl gear in cable-free corridors between the turbines (for example where interarray cables ran parallel to the trawl tracks). Other fishermen thought confidence to operate inside OWFs would increase as experience and knowledge of those who do increased. Measures suggested by respondents that could help to increase the level of co-existence between the fishing and offshore wind farm industry included: better knowledge of seabed hazards and their location; fishing-friendly methods of cable protection; monitoring of risks and exposure; and regular communication and knowledge exchange between wind farm developers / maintenance companies and fishers.

Awel y Môr Offshore Wind Farm Category 6: Environmental Statement Volume 4, Annex 8.1: Commercial Fisheries Baseline Report Date. MacNab, S. and Nimmo, F. 2022. Awel y Môr Offshore Wind Farm Commercial Fisheries Baseline Report. Report produced by Poseidon Aquatic Resources Management Ltd. This document has been prepared by Poseidon Aquatic Resource Management Ltd (Poseidon) to support the Environmental Impact Assessment (EIA) of the Awel y Môr Offshore Wind Farm (hereafter referred to as AyM). The information on commercial fisheries activity presented in this document is intended to inform the EIA for AyM by providing a detailed understanding of the commercial fisheries baseline, against which the potential impacts of AyM can be assessed. An overview of the information presented in this Technical Report is provided in Volume 2, Chapter 8: Commercial Fisheries (application ref: 6.2.8) of the Environmental Statement (ES). This document describes commercial fisheries activity, defined as fishing activity legally undertaken where the catch is sold for taxable profit. A description of charter angling activity, defined as fishing for marine species where the purpose is recreation and not sale or trade, is provided in Volume 2, Chapter 12: Other Marine Users and Activities (application ref: 6.2.12) and Appendix 12.1: Charter Angling Baseline Report (application ref: 6.4.12.1). The ecology of the fish and shellfish species targeted by commercial fishing activity is described in Volume 2, Chapter 6: Fish and Shellfish Ecology (application ref: 6.2.6).

The effects of temporary exclusion of activity due to wind farm construction on a lobster (Homarus gammarus) fishery suggests a potential management approach. Michael Roach, Mike Cohen, Rodney Forster, Andrew S. Revill, and Magnus Johnson. Offshore wind farms (OWF) form an important part of many countries strategy for responding to the threat of climate change, their development can conflict with other offshore activities. Static gear fisheries targeting sedentary benthic species are particularly affected by spatial management that involves exclusion of fishers. Here we investigate the ecological effect of a short-term closure of a European lobster (Homarus gammarus (L.)) fishing ground, facilitated by the development of the Westermost Rough OWF located on the north-east coast of the United Kingdom. We also investigate the effects on the population when the site is reopened on completion of the construction. We find that temporary closure offers some respite for adult animals and leads to increases in abundance and size of the target species in that area. Reopening of the site to fishing exploitation saw a decrease in catch rates and size structure, this did not reach levels below that of the surrounding area. Opening the site to exploitation

allows the fishery to recuperate some of the economic loss during the closure. We suggest that our results may indicate that temporary closures of selected areas may be beneficial and offer a management option for lobster fisheries. We suggest if a fishing closure is also suggested in a renewable energy area, then the placement of this wind farm would be perfect in an already existing fishing closure area such as the haddock box.

Desktop study on autecology and productivity of European lobster (Homarus gammarus, L) in offshore wind farms. M.J.C. Rozemeijer, K.E. van de Wolfshaar. This desk study describes the biology of the European lobster H. gammarus. Using the obtained data a model was developed to describe the growth of the European lobster under assumed conditions on the anti-scouring of monopiles in Dutch OWFs. One of the main questions to answer was, if, theoretically, local productivity supports the continuous harvesting of lobsters with passive fishery methods.

Interaction between the Yorkshire coast static gear crustacean fishery and offshore wind energy development. Michael Roach. Abstract: Globally the offshore wind energy sector has seen an increase in the number of and spatial scale of offshore wind farms in the last decade. Offshore wind farms can be seen as many EU member states answer to meeting their energy demands from renewable sources. The increase in offshore wind developments can create spatial conflict with other marine users such as commercial fisheries. Their ecological effects on macro-benthic crustaceans are not currently widely understood. This thesis focuses on the short-term effects of the construction and operation of the Westermost Rough offshore wind farm and the subsequent closure and reopening of the site to fishing exploitation due to the construction process. There were limited effects of the Westermost Rough offshore wind farm on the size structure and catch rates of the commercially exploited crustaceans sampled over three survey years. The closure of the site during construction saw an increase in the size, abundance, and total egg yield of lobsters from the site. This increase in lobsters produced an adverse effect on the commercial bycatch species in the site. Reopening of the site to fishing exploitation, produced an immediate, short-term increase in effort. The increase in lobster size, abundance and total egg yield produced a dramatic decrease but within six weeks, reflected that of the control area. This thesis demonstrates that the there are few observable short-term effects of offshore wind farm construction on commercially exploited crustacean species. The thesis also demonstrates the effects of a closed area on commercial crustaceans and the effects of reopening the site to exploitation. The results can be used to assist in marine spatial management and future offshore wind interactions with commercially important crustacean fisheries.

Review of fish and fisheries research to inform ScotMER evidence gaps and future strategic research in the UK. Published by Marine Scotland Science. Scottish Government. This study provides a review of research of relevance to existing evidence gaps of the potential impacts of Marine Renewable Energy (MRE) developments on fish and commercial fishing in the UK, and identifies recommendations for future research to address them. The broad evidence gaps categories on which the study is focused are based on those identified by the Scottish Marine

Energy Research (ScotMER) programme's fish and fisheries evidence map. These are considered of relevance in an UK-wide context and include the following:

- FF.01: Accurate mapping of fishing effort and catches in space and time;
- FF.02: Accurate and validated method to predict fisheries displacement levels and locations;
- FF.03: Fisheries stakeholders integration and participation process;
- FF.04: Improvements in Environmental Impact Assessment methodologies;
- FF.05: Strategic fisheries management;
- FF.06: Underwater noise and vibrations;
- FF.07: Electromagnetic fields (EMF);
- FF:08: Collision risk (tidal turbines);2
- FF.09: Accurate spatio-temporal patterns of spawning activity by marine fish species;
- FF.10: Essential fish habitat (EFH);
- FF.11: Reef/fish aggregation effect;
- FF.12: Inshore populations/distribution;
- FF.13: Cumulative pressures and impact pathways;
- FF.14: Co-existence with commercial fisheries: and
- FF.15: Chemical/toxicity effects.

Research of relevance to the above evidence gaps was reviewed using internet search engines. In addition, in parallel, targeted consultation via questionnaires was undertaken with a range of UK and international experts and stakeholders including research institutions and universities, fisheries stakeholders, nature conservation organisations, developers and research and industry groups.

Residency and habitat use of European lobster (Homarus gammarus) within an offshore wind farm. H. Thatcher, T. Stamp, D. Wilcockson, and P. J. Moore. As offshore wind energy developments increase globally in response to climate change, it is important to gain an understanding of the effects they are having on the marine environment.Whilst there is growing information on the types of organisms present within these sites, our knowledge of how species interact with these sites is limited. For the first time we examined the movements and habitat utilization of a temperate decapod, the European Lobster Homarus gammarus, using acoustic telemetry within an offshore wind farm (OWF). Innovasea V9 acoustic transmitters were externally attached to 33 individuals (carapace length = 87–113 mm) at three turbine locations within an offshore wind farm in the Irish Sea. Individuals were found to exhibit high residency to the tagging sites, with over half of tagged lobsters present at the tagging sites for 70% of the study period. Individual home ranges and core territories were calculated using 95% and 50% kernel density, respectively. Home ranges ranged from 9313.76 to 23 156.48m2 while core territories ranged from 1084.05 to 6037.38m2. Over 50% of all detections were recorded within 35 m of the scour protection. These results suggest that particular areas of habitat within fixed-turbine OWFs provide a suitable habitat for lobsters. We postulate that this is likely the result of artificial reef effects arising from the addition of artificial hard substate into previously soft sediment dominated habitats. Therefore, future fixed-turbine OWF

developments across Europe may provide potential fishery opportunities as a result of artificial reef effects.

Monitoring fisheries resources at offshore wind farms: BACI vs. BAG designs. Elizabeth T. Methratta. Offshore wind farms often co-occur with biodiverse marine ecosystems with high ecological, economic, and cultural value. Yet there are many uncertainties about how wind farms affect marine organisms and their environment. The before–after–control–impact (BACI) design, an approach that compares an impact location with an unaffected control both before and after the intervention, is the most common method used to study how offshore wind farms affect finfish. Unfortunately, this design has several methodological limitations that undermine its ability to detect effects in these studies. An alternative approach, the before–after-gradient (BAG) design, would sample along a gradient with increasing distance from the turbines both before and after the intervention, and could overcome many of the limitations of BACI. The BAG design would eliminate the difficult task of finding a suitable control, allow for the assessment of the spatial scale and extent of wind farm effects, and improve statistical power by incorporating distance as an independent variable in analytical models rather than relegating it to the error term. This article explores the strengths and weaknesses of the BACI and BAG designs in the context of offshore wind development and suggests an approach to incorporating the BAG design into existing fisheries surveys and a regional monitoring framework.

Fishing within offshore wind farms in the North Sea: Stakeholder perspectives for multi-use from Scotland and Germany. Maximilian Felix Schupp, Andronikos Kafas, Bela H. Buck, Gesche Krause, Vincent Onyango, Vanessa Stelzenmüller, Ian Davies, Beth E. Scott. Offshore wind power generation requires large areas of sea to accommodate its activities, with increasing claims for exclusive access. As a result, pressure is placed on other established maritime uses, such as commercial fisheries. The latter sector has often been taking a back seat in the thrust to move energy production offshore, thus leading to disagreements and conflicts among the different stakeholder groups. In recognition of the latter, there has been a growing international interest in exploring the combination of multiple maritime activities in the same area (multi-use; MU), including the re-instatement of fishing activities within, or in close proximity to, offshore wind farms (OWFs). We summarise local stakeholder perspectives from two sub-national case studies (East coast of Scotland and Germany's North Sea EEZ) to scope the feasibility of combining multiple uses of the sea, such as offshore wind farms and commercial fisheries. We combined a desk-based review with 15 semistructured qualitative interviews with key knowledge holders from both industries, regulators, and academia to aggregate key results. Drivers, barriers and resulting effects (positive and negative) for potential multi-use of fisheries and OWFs are listed and ranked (57 factors in total). Factors are of economic, social, policy, legal, and technical nature. To date, in both case study areas, the offshore wind industry has shown little interest in multiuse solutions, unless clear added value is demonstrated and no risks to their operations are involved. In contrast, the commercial fishing sector is proactive towards multi-use projects and acts as a driving force for MU

developments. We provide a range of management recommendations, based on stakeholder input, to support progress towards robust decision making in relation to multi-use solutions, including required policy and regulatory framework improvements, good practice guidance, empirical studies, capacity building of stakeholders and improvements of the consultation process. Our findings represent a comprehensive depiction of the current state and key stakeholder aspirations for multi-use solutions combining fisheries and OWFs. We believe that the pathways towards robust decision making in relation to multi-use solutions suggested here are transferable to other international locations.

A framework for categorizing the interactions of offshore windfarms and fisheries Kevin D. E. Stokesbury, Gavin Fay and Robert Griffin. The offshore windfarm industry has great potential for sustainable energy but requires space. The ability of fisheries to harvest within these windfarms varies. This has created a conflict between these two industries and discussions are hampered by differing approaches to the marine environment, a lack of understanding of what each industries requires, the significant money at stake, and the values the public place on marine conservation. To characterize, standardize, and quantify the scientific data addressing these concerns requires a framework. The framework should categorize data on spatial scales of 1 cm2 to 1 km2 (individual turbines/fishing vessels), 1–1000 km2 (companies), and >1000 km2 (regions), and by their ecological, economic, cultural, and institutional impacts. The framework should be repeated over temporal scales of the windfarm: pre-development (1–3 years), construction (1–2 years), post-construction (20–40 years), and decommission. Balancing the metrics used to describe the two industries will allow people to communicate clearly in an organized systematic way, hopefully resulting in a continuing supply of sustainable sea food and renewable energy to an increasingly hungry world.

2. Compensation/Mitigation to Fishing Industry

FLOWW Best Practice Guidance for Offshore Renewables Developments: Recommendations for Fisheries Disruption Settlements and Community Funds. This document has been prepared by the Fishing Liaison with Offshore Wind and Wet Renewables Group (FLOWW). Many thanks to the following organisations who were involved in drafting: National Federation of Fishermen's Organisations, RenewableUK, Scottish Renewables, Scottish Fishermen's Federation, Marine Scotland, The Crown Estate, DONG Energy, Forewind Ltd, Northern Ireland Producer's Organisation, Marine Management Organisation. Fisheries Community Funds. Settlements may be considered at the individual business or wider community level. Disruption settlements typically aim to address losses and/or costs directly incurred by individual fishing businesses through a payment to each business. Settlements at the community level are generally administered through a group arrangement. This may include the establishment of a fisheries community fund as outlined in section 6.

The following principles and considerations are likely to prove important in establishing fruitful settlements: As an alternative, or in addition to disruption settlements aimed at individual

businesses, both OREI developers and fishing interests may consider it desirable to implement actions at a community level as a broader strategy to address residual impacts, or simply on the basis of a goodwill gesture in recognition of a new marine activity being accommodated within an area of existing activities.

This has led in some cases to the establishment of fisheries community funds in order to facilitate such actions. As well as supporting fishing businesses, in comparison to disruption settlements, these may also help to address less tangible but legitimate impacts and interrelationships with the wider fisheries community e.g. impacts upon the supply chain or industry support infrastructure. Existing practice in establishing such funds has generally occurred on the following basis:

Best Practice Guidance for Fishing Industry Financial and Economic Impact Assessments. Guidelines based on outputs from a technical workshop organised by the UK Fisheries Economics Network. prepared by POSEIDON AQUATIC RESOURCE MANAGEMENT LTD WINDRUSH, WARBORNE LANE PORTMORE, LYMINGTON HAMPSHIRE SO41 5RJ. Page 1 Types of impacts. See Page 25 Impacts of the Adaptions made by fishers in Response to the Intervention. UKFEN identified the need for developing best practice guidance for preparing economic impact assessments (IAs) that assess impacts on commercial fisheries as a result of areas closed or restricted to fishing. It was considered that such guidance would be beneficial to researchers, consultants, policy-makers and the industry. Poseidon was commissioned to produce a background paper that presented international examples of IAs and suggested areas where further guidance in relation to fishing would be useful. We suggest an economic impact assessment for Atlantic Canadian fisheries report be prepared.

Awel y Môr Offshore Wind Farm. Category 8: Other Documents Schedule of Mitigation. This document lists all the mitigation proposed in the Environmental Impact Assessment (EIA) for Awel y Môr (AyM). The following schedule lists all measures proposed and signposts where the commitments made in the Environmental Statement (ES) are secured in the draft Development Consent Order (DCO) and associated documents. As a result of the parallel DCO and Marine Licence application processes, signposting offshore-specific mitigation measures to draft marine licence conditions is not possible. Mitigation measures of relevance to marine licencing are included in the Marine Licence Principles Document. This document contains specific details about mitigation measures during construction phases occurring onshore and offshore. Page 19 contains details about offshore mitigation measures recording power cables will be buried to a max target of 4m depth. Page 21 sets max threshold for pile driving activities and details regarding disposal site for dredged materials being within the renewable energy leased site. Rarely are specific mitigation techniques detailed in our Nova Scotia EA documentation which leaves a lack of transparency and possible unsubstantiated concerns from citizens.

FLOWW Best Practice Guidance for Offshore Renewables Developments: Recommendations for Fisheries Liaison. Dot Davies Secretariat The Fishing Liaison with Offshore Wind and Wet Renewables Group c/o The Crown Estate 6 Bell's Brae Edinburgh EH4 3BJ. The Fishing Liaison with Offshore Wind and Wet Renewables Group (FLOWW) was set up in 2002 to foster good relations between the fishing and offshore renewable energy sectors and to encourage co-existence between both industries. FLOWW's objectives are to enable and facilitate discussion discuss on matters arising from the interaction of the fishing and offshore renewable energy industries, to promote and share best practice, and to encourage liaison with other sectors in the marine environment. FLOWW comprises organisations with an interest in offshore renewables and the fishing industry, being comprised of fishing industry bodies, offshore renewable developers and consultants, government agencies and The Crown Estate. The group is facilitated by a secretariat funded by The Crown Estate.

Cumulative Historic Resources Visual Effects Analysis – Revolution Wind Farm and Revolution Wind Export Cable Project. PREPARED FOR U.S. Department of the Interior, Bureau of Ocean Energy Management, Office of Renewable Energy Programs PREPARED BY SWCA Environmental Consultants. The Bureau of Ocean Energy Management (BOEM), with contractor support from SWCA Environmental Consultants (SWCA), prepared this cumulative historic resources visual effects analysis (CHRVEA) for the Revolution Wind Farm (RWF) and Revolution Wind Export Cable Project (the Project). BOEM has determined that the Project has the potential to contribute to the cumulative visual effects on historic properties (as defined at 36 CFR 800.16(l)) in combination with the potential effects of other proposed actions, most specifically other offshore wind energy development activities in the geographic analysis area (GAA). In considering the potential for cumulative visual effects of the Project on historic properties, including National Historic Landmarks (NHLs, as defined at 36 CFR 800.16(p)), the CHRVEA assists BOEM in complying with Sections 106 and 110(f) of the National Historic Preservation Act (NHPA), as amended (54 USC 306108 and 54 USC 306107), and the implementing regulations for the Section 106 process (36 CFR 800). At 36 CFR 800.10, the Section 106 regulations provide Special requirements for protecting National Historic Landmarks that reemphasize compliance with Section 110(f), for the agency "to the maximum extent possible, undertake such planning and actions as may be necessary to minimize harm to any National Historic Landmark that may be directly and adversely affected by an undertaking." The onshore and offshore historic resources visual effects analysis (HRVEA) reports prepared for the Project by the lessee (Revolution Wind, LLC) identify historic properties (including NHLs) within a preliminary area of potential effects (APE) for visual effects analysis, the area within which visual adverse effects could result from wind turbine generator (WTG) installation (Environmental Design and Research [EDR] 2021a, 2021b, 2022a, 2022b). In a review of the HRVEA reports for the Project, BOEM has determined that the Project would result in potential

visual adverse effects to the 101 historic properties within the preliminary APE of coastal Massachusetts and Rhode Island. Although the APE extends to Connecticut and Long Island, New York, no historic properties were determined to be adversely affected in those states. As BOEM presented to NHPA Section 106 consulting parties on maps in a meeting on December 17, 2021, the GAA for the National Environmental Policy Act (NEPA) analysis and the APE for the NHPA Section 106 review are the same areas. BOEM plans to delineate the final area of potential effects (APE) with releases of the finding of effect report, and this report will be shared with the consulting parties for their review and comment before the draft environmental impact statement (EIS) is issued publicly. BOEM has elected to use the NEPA substitution process for Section 106 purposes pursuant to 36 CFR 800.8(c).

Among the 101 adversely affected historic properties, the offshore HRVEA identifies five NHLs in Rhode Island and two traditional cultural properties (TCPs) in Massachusetts that would be adversely affected by the Project in the APE (EDR 2022a, 2022b). Th five NHLs consist of Block Island Southeast Lighthouse, Ocean Drive Historic District, Bellevue Avenue Historic District, The Breakers, and Marble House. Each of the 101 historic properties noted above retains its maritime setting, and that maritime setting contributes to the property's NRHP eligibility and continues to offer significant seaward views. These seaward views support the integrity of the maritime setting and include vantage points with the potential for an open view from each property toward RWF WTGs (EDR 2021b, 2022a). The Project would contribute proportionally between nearly 10 and nearly 90 percent of the cumulative adverse effect, owing to the location and intensity of the foreseeable build-out attributed to other offshore wind energy development activities relative to the location of the historic property. This is based on full buildout of the Project (to up to 100 WTGs and two offshore substations [OSS]) and all other reasonably foreseeable offshore wind projects currently planned in the adjacent lease areas (modeled at 955 WTG and three OSS [EDR 2021b]). The proportion of visible WTG elements added by the project ranges from 9.6 percent at TCP, where all modeled WTGs and OSS would I Cumulative Historic Resources Visual Effects Analysis – Revolution Wind Farm and Revolution Wind Export Cable Project potentially be visible, to 87.2 percent at the historic U.S. Weather Bureau Station at Block Island, where the Project WTGs would be visible in greater numbers than the combination of all other future wind farms planned in adjacent OCS lease areas (41 Project WTGs would potentially be visible there versus six WTGs from other planned projects).

Intensity of visual impacts from WTG and offshore substation development would reduce with distance from historic properties and with lighting and design actions that would be undertaken by the Project to minimize impacts; however, cumulative adverse effects would not be fully eliminated at the 101 adversely affected historic properties. This CHRVEA recommends BOEM consider additional mitigation to be determined in BOEM's consultation with consulting parties.

The CHRVEA assesses the Project's offshore elements' cumulative visual effects (daytime and nighttime) on historic properties when combined with past, present, and reasonably foreseeable offshore wind energy development activities in the APE for the Project. CHRVEA

analyses inform BOEM's determination of overall Project effects on historic properties and consultation on those effects. BOEM plans to provide the finding of effect report to the consulting parties before the Project EIS. BOEM remains in consultation with all consulting parties under Section 106 of the NHPA, including Native American Tribal Nations that may have concerns for properties of traditional cultural and religious significance in the APE; State Historic Preservation Offices/Division for Historic Preservation; Advisory Council on Historic Preservation; National Park Service; and other cooperating federal agencies, local governments, and historical interest groups. BOEM will continue to consult with these parties on this assessment of cumulative effects and the resolution of all adverse effects. BOEM will continue to consult with the consulting parties to resolve the adverse effects through avoidance, minimization, and mitigation measures by executing a memorandum of agreement or listing the resolution measures in the record of decision pursuant to 36 CFR 800.8(c) because BOEM has elected to use the NEPA substitution for this Section 106 consultation.

Community Benefits Agreement Toolkit. http://www.actiontankusa.org Toolkit adapted from research and resources on Community Benefits Agreements provided by PolicyLink and Julian Gross**.** Sponsored by **http://www.stephenhwilderfoundation.org/**

Crossed Wires: Maintaining public support for offshore wind farms Ed Birkett Foreword by Rt Hon Dame Andrea Leadsom DBE MP and Rt Hon Amber Rudd. Policy Exchange is the UK's leading think tank. We are an independent, non-partisan educational charity whose mission is to develop and promote new policy ideas. The Government's target to install 40 gigawatts (GW) of offshore wind by 2030 requires a step change in the development of Great Britain's onshore and offshore electricity networks. Without reform, there is now a significant risk that local backlash against grid connections for offshore wind farms will grow, spreading from East Anglia to North Wales, Humberside, and the east coast of Scotland. With the right reforms, the Government can ensure that offshore wind maintains the strongest possible support across the UK, recognising that compensation should be forthcoming for those local communities that will be inevitably impact by new infrastructure, even under a coordinated approach. As the offshore wind rollout continues, there will be plenty of opportunities for British businesses to participate, whether manufacturing of wind turbines and subsea cables, constructing and operating wind farms, or developing the new technologies that will unlock an offshore electricity grid in the North Sea. Therefore, alongside the reforms proposed in this report, the Government should ensure that British businesses have the right opportunities to win contracts, grow green jobs and expand the export potential of the UK's world-leading offshore wind industry.

3. Ecological Impacts

Could federal wind farms influence continental shelf oceanography and alter associated ecological processes? A literature review. Travis Miles, Sarah Murphy, Josh Kohut, Professor, Sarah Borsetti, Daphne Munroe, Associate Professor. As of the draft of this document, the US east coast has 1.7 million acres of federal bottom under lease for development of wind energy installations, with plans for more than 1,500 foundations to be placed. The scale of the impact of these wind farms has the potential to alter the unique and delicate oceanographic conditions along the expansive Atlantic continental shelf, a region characterized by a strong seasonal thermocline that overlies cold bottom water, known as the "Cold Pool." Strong seasonal stratification traps cold (typically less than 10°C) water above the ocean bottom sustaining a boreal fauna whose range extends farther south than would be anticipated by latitude. This boreal fauna represents vast fisheries, including the most lucrative shellfish fisheries in the U.S. In this report, we review the existing literature and research pertaining to the ways in which offshore wind farms may alter processes that establish, maintain, and degrade stratification associated with the Cold Pool through vertical mixing in this seasonally dynamic system. Changes in stratification could have important consequences in Cold Pool set-up and degradation, a process fundamental to the high fishery productivity of the region. While still limited, there is an increasing body of research focused on the specific processes that describe the interaction between offshore wind turbines and underlying ocean conditions, at scales ranging from individual turbines to entire wind farms. These studies have examined turbulent mixing generated by turbine structure, wind extraction reducing surface wind stress and altering water column turbulence. These mechanisms could influence ocean mixing and in turn stratification that is a key characteristic of the Cold Pool. The majority of research to date on offshore wind turbine effects on ocean mixing were carried out in, or simulated to represent, coastal waters around Northern Europe. It is important to recognize that the oceanographic conditions specific to these European study sites differ in many important ways compared to that of the Mid Atlantic Bight Cold Pool. Generally, continental shelf waters in Northern Europe are less stratified seasonally and have stronger tidal currents (and higher turbulence) than those of the Mid Atlantic Bight. Thus, results from the European studies characterizing potential impacts of offshore wind facilities on stratification are more representative of impacts we might expect during the relatively weaker stratified time periods in spring and fall (during Cold Pool set up and breakdown, respectively). During the highly stratified summer months, previous results suggest it is less likely that the structures will induce mixing sufficient to overcome the strong stratification and impact Cold Pool integrity, nor the broad exchange between the surface and bottom water layers.

Nonetheless, the potential for these multiple wind energy arrays to alter oceanographic processes, and the biological systems that rely on them is possible; however, a great deal of uncertainty remains about the nature and scale of these interactions. We suggest that research should be prioritized that identifies stratification thresholds of influence, below which turbines

and wind farm arrays may alter oceanographic processes, and these should be examined within context of spatial and seasonal dynamics of the Cold Pool and offshore wind lease areas to identify potential areas of further study.

Accelerating deployment of offshore wind energy alter wind climate and reduce future power generation potentials. Institute of Coastal Systems-Analysis and Modeling, Helmholtz-Zentrum Hereon, Geesthacht, Germany. The European Union has set ambitious CO2 reduction targets, stimulating renewable energy production and accelerating deployment of offshore wind energy in northern European waters, mainly the North Sea. With increasing size and clustering, offshore wind farms (OWFs) wake effects, which alter wind conditions and decrease the power generation efficiency of wind farms downwind become more important. We use a high-resolution regional climate model with implemented wind farm parameterizations to explore offshore wind energy production limits in the North Sea. We simulate near future wind farm scenarios considering existing and planned OWFs in the North Sea and assess power generation losses and wind variations due to wind farm wake. The annual mean wind speed deficit within a wind farm can reach 2–2.5 ms−1 depending on the wind farm geometry. The mean deficit, which decreases with distance, can extend 35–40 km downwind during prevailing southwesterly winds. Wind speed deficits are highest during spring (mainly March–April) and lowest during November–December. The large-size of wind farms and their proximity affect not only the performance of its downwind turbines but also that of neighboring downwind farms, reducing the capacity factor by 20% or more, which increases energy production costs and economic losses. We conclude that wind energy can be a limited resource in the North Sea. The limits and potentials for optimization need to be considered in climate mitigation strategies and cross-national optimization of offshore energy production plans are inevitable.

Convergence of emerging technologies: Development of a risk-based paradigm for marine mammal monitoring for offshore wind energy operations. Abstract: The ability to gather real-time and near real-time data on marine mammal distribution, movement, and habitat use has advanced significantly over the past two decades. These advances have outpaced their adoption into a meaningful, risk based assessment framework so critically needed to support society's growing demands for a transition to increased reliance on renewable energy. Marine acoustics have the capacity to detect, identify, and locate vocalizations over broad areas. Photogrammetric and image processing increases the ability to visually detect animals from surface or aerial platforms. Ecological models based on long-term observational data coupled with static and remotely sensed oceanographic data are able to predict daily and seasonal habitat suitability. Extensive monitoring around anthropogenic activities, combined with controlled experiments of exposure parameters (i.e., sound), supports better informed decisions on reducing effects. Population models and potential consequence modeling provide the ability to estimate the significance of individual and population exposure. The collective capacities of these emerging technical approaches support a risk ranking and risk management

approach to monitoring and mitigating effects on marine mammals related to development activities. The monitoring paradigm related to many offshore energy-related activities, however, has long been spatially limited, situationally myopic, and operationally uncertain. A case evaluation process is used to define and demonstrate the changing paradigm of effective monitoring aimed at protecting living resources and concurrently providing increased certainty that essential activities can proceed efficiently. Recent advances in both technologies and operational approaches are examined to delineate a risk-based paradigm, driven by a diversity of regional data inputs, that is capable of meeting the imperative for timely development of offshore wind energy. Integr Environ Assess Manag 2022;18:939–949. © 2021

The 2020 State of the Science report was produced by the Ocean Energy Systems (OES)-Environmental initiative (formerly Annex IV), under the International Energy Agency's OES-Environmental collaboration (https://www.ocean-energy-systems.org). https://tethys.pnnl.gov/publications/state-of-the-science-2016.

The outsized trophic footprint of marine urbanization. Martino E Malerba, Craig R White, and Dustin J Marshall. Artificial structures are proliferating along coastlines worldwide, creating new habitat for heterotrophic filter feeders. The energy demand of this heterotrophic biomass is likely to be substantial, but is largely unquantified. Combining in situ surveys, laboratory assays, and information obtained from geographic information systems, we estimated the energy demands of sessile invertebrates found on marine artificial structures worldwide. At least 950,000 metric tons of heterotrophic biomass are associated with commercial ports around the world, emitting over 600 metric tons of carbon dioxide into the atmosphere and consuming 5 million megajoules of energy per day. We propose the concept of a trophic "footprint" of marine urbanization, in which every square meter of artificial structure can negate the primary production of up to 130 square meters of surrounding coastal waters; collectively, these structures not only act as energy sinks and carbon sources, but also potentially reduce the productivity of coastal food webs. Front Ecol Environ 2019

Potential environmental effects of deepwater floating offshore wind energy facilities Hayley Farr a,1,*, Benjamin Ruttenberg a,b, Ryan K. Walter b,c, Yi-Hui Wang a,b, Crow White a,b
Abstract: Over the last few decades, the offshore wind energy industry has expanded its scope from turbines mounted on foundations driven into the seafloor and standing in less than 60 m of water, to floating turbines moored in 120 m of water, to prospecting the development of floating turbines moored in ~1,000 m of water. Since there are few prototype turbines and mooring systems of these deepwater, floating offshore wind energy facilities (OWFs) currently deployed, their effects on the marine environment are speculative. Using the available scientific literature concerning appropriate analogs, including fixed-bottom OWFs, land-based wind energy facilities, wave and tidal energy devices, and oil and gas platforms, we conducted a qualitative systematic review to estimate the potential environmental effects of deepwater, floating OWFs during operation, as well as potential mitigation measures to address some of the effects. We evaluated six categories of potential effects: changes to atmospheric and oceanic dynamics due to energy removal and modifications, electromagnetic field effects on

marine species from power cables, habitat alterations to benthic and pelagic fish and invertebrate communities, underwater noise effects on marine species, structural impediments to wildlife, and changes to water quality. Our synthesis of 89 articles selected for the review suggests that many of these potential effects could be mitigated to pose a low risk to the marine environment if developers adopt appropriate mitigation strategies and best-practice protocols. This review takes the necessary first steps in summarizing the available information on the potential environmental effects of deepwater, floating OWFs and can serve as a reference document for marine scientists and engineers, the energy industry, permitting agencies and regulators of the energy industry, project developers, and concerned stakeholders such as coastal residents, conservationists, and fisheries.

Preliminary Data Aggregation and Analysis of the Effects on Fish, Marine Mammals, and other Marine Organisms, and the Habitats that Support them, from a Proposed Offshore Wind Farm off the Coast of Grays Harbor, Washington. January 2022. Pacific Northwest National Laboratory Seattle, Washington 98109. The Pacific Northwest National Laboratory (PNNL) was contracted by Herrera Environmental Consultants, Inc. on behalf of GHW to carry out this preliminary scoping study to evaluate baseline conditions and potential effects on fish and marine mammals from development and operation of a floating offshore wind farm installed within a designated area off the coast of Washington1. Many of the studies available in the published literature have been conducted on behalf of a renewable energy company. Large numbers of recent studies draw conclusions based on computer models as the lack of empirical data from actual wind farms are not yet available.

WORKING GROUP ON MARINE BENTHAL AND RENEWABLE ENERGY DEVELOPMENTS (WGMBRED) ICES. 2021. Working Group on Marine Benthal and Renewable Energy Developments (WGMBRED). ICES Scientific Reports. 3:63. 24 pp. https://doi.org/10.17895/ices.pub.8209. The aim of the Working Group on Marine Benthal and Renewable Energy Developments (WGMBRED) is to increase scientific exchange and efficiency of benthal renewable energy related research. In 2019–2021, the group discussed guidelines for data collection and methodologies and developed an integrated example dataset on benthos data of marine renewable energy devices. This database CRITTERBASE, currently contains data from Belgium, the Netherlands, Germany and Denmark on wind farms, gas platforms and a natural reef, based on 1969 samples collected during 92 expeditions with 710 benthic taxa. This dataset will be made publicly available to serve future research on the effects of the installation and exploration of renewable energy devices in the marine environment.

WGMBRED further investigated possible positive effects of renewable energy installations, developed the scientific basis for assessing the effect of different decommissioning scenarios and reviewed the available knowledge on the relationship between renewable energy installations and the provisioning of ecosystem services. The identified positive effects of the installation of offshore energy devices is linked with the removal of pressures in light of safety

issues, rather than a direct protection of the marine environment, and therefore such installations can be considered as Other Effective area-based Conservation Measure (OECM). The group identified the most plausible decommissioning scenarios and tested whether the earlier published cause-effect relationships underlying the effect of the presence of renewable energy installations can be used – after slight modification – for assessing the (partial) removal of the devices.

Along the same lines, a structural review of the biodiversity – ecosystem functioning – ecosystem service links in the context of an operational phase of an offshore wind farm resulted in a conceptual framework and available knowledge base allowing formal semi-quantitative analyses. WGMBRED will continue along these lines and use the concepts and collective knowledge base for more formal assessments of the ecological consequences of installing, operating and decom-missioning renewable energy structures from the marine environment. In addition, WGMBRED will review emerging non-invasive monitoring techniques and methodology to assess the effect of energy emissions on the environment.

Multi-modal Approach for Benthic Impact Assessments in Moraine Habitats: A Case Study at the Block Island Wind Farm. https://link.springer.com/article/10.1007/s12237-020-00818-w Benthic assessment techniques utilized in soft sediment areas are of limited utility in glacial moraine habitats that are structurally complex and largely composed of hard substrata. We present a multi-modal approach consisting of multibeam bathymetry, video, and still imagery that collectively provides the knowledge base necessary to perform impact assessments in these habitats. Baseline and post-construction surveys were conducted adjacent to the Block Island Wind Farm to develop and test these methodologies within the context of offshore wind development, specifically for detecting and documenting anchoring-related impacts to moraine habitats. Habitat data were evaluated using the substrate and biotic components of the national classification standard, the Coastal and Marine Ecological Classification Standard, recommended by federal regulators, with modifications to present results in terms of predicted vulnerability to disturbance. Habitats near the wind farm were diverse and patchy, ranging from rippled gravelly sand to continuous cobble/boulder fields with high biotic cover. Anchor furrows were detected in moderate value habitats in bathymetric and video data. The multi-modal survey approach tested at the Block Island Wind Farm and presented here is now specifically recommended by federal agencies and is being used to inform efforts currently underway to map and assess benthic habitats for a number of U.S. projects seeking federal permits.

Characterizing the benthic community in Maryland's offshore wind energy areas using a towed camera sled: Developing a method to reduce the effort of image analysis and community description.
https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0215966#pone-0215966-g004 Offshore wind farms are a crucial component for the improvement of renewable energy in the United States. The Bureau of Ocean Energy Management (BOEM) designated ~170 km2 of shelf area for wind energy development off the coast of Maryland, USA. In order to understand

potential environmental impacts of wind turbine installation on the benthic ecosystem within the designated area, we conducted a study to visually characterize bottom habitats and epibenthic communities in the Mid-Atlantic Outer Continental Shelf blocks of the Maryland wind energy area. Seven 5 km long transects were sampled using a towed camera sled with a downward-facing digital camera that captured images at 5 frames·s-1s. Additional small-mesh beam trawling was also conducted at selected locations complementary for species identification. Image data were analyzed using two image selection methods, random and systematic (i.e. video frames were selected at various intervals). For both methods, estimates of community diversity (Hill's N2) stabilized with sample sizes ranging from 316 to 398 frames. Our results allowed us to define distinct epibenthic communities and bottom habitats that are associated with offshore wind energy sites and to develop a sampling technique for digital images that can be applied to other research programs.

Oceanic records of North American bats and implications for offshore wind energy development in the United States. Donald I. Solick, Christian M. Newman. Abstract: Offshore wind energy is a growing industry in the United States, and renewable energy from offshore wind is estimated to double the country's total electricity generation. There is growing concern that land-based wind development in North America is negatively impacting bat populations, primarily long-distance migrating bats, but the impacts to bats from offshore wind energy are unknown. Bats are associated with the terrestrial environment but have been observed over the ocean. In this review, we synthesize historic and contemporary accounts of bats observed and acoustically recorded in the North American marine environment to ascertain the spatial and temporal distribution of bats flying offshore. We incorporate studies of offshore bats in Europe and of bat behaviour at land-based wind energy studies to examine how offshore wind development could impact North American bat populations. We find that most offshore bat records are of long-distance migrating bats and records occur during autumn migration, the period of highest fatality rates for long-distance migrating bats at land-based wind facilities in North America. We summarize evidence that bats may be attracted to offshore turbines, potentially increasing their exposure to risk of collision. However, higher wind speeds offshore can potentially reduce the amount of time that bats are exposed to risk. We identify knowledge gaps and hypothesize that a combination of operational minimization strategies may be the most effective approach for reducing impacts to bats and maximizing offshore energy production.

4. Acoustic Impacts

In 2008, Germany became the first nation worldwide to define an underwater noise limit at SEL 160db (sound exposure level) and SPL 190dB (sound peak level) at a distance of 750m from the

sound source. Setting of EU Threshold Values for impulsive underwater sound. Recommendations from the Technical Group on Underwater Noise (TG Noise) MSFD Common Implementation Strategy Technical Group on Underwater Noise (TG NOISE) Deliverable 2 of the work programme of TG Noise 2022
https://environment.ec.europa.eu/news/zero-pollution-and-biodiversity-first-ever-eu-wide-limits-underwater-noise-2022-11-29_en

https://circabc.europa.eu/ui/group/326ae5ac-0419-416783cae3c210534a69/library/edd5bf34-f124-4689-9bba-f754259e0b9f/details

Acoustic Masking in Marine Ecosystems, intuitions, analysis, and implication. Clark et al.

Stress response to anthropogenic noise in Atlantic cod, Gadus morhua L. Rogelio Sierra-Flores, Tim Atack, Hervé Migaud, Andrew Davie. The potential effects of anthropogenic noise on the physiology of Atlantic cod have not been well described. The aim of the present study was to investigate the impact of anthropogenic noise on Atlantic cod stress response using cortisol as a biomarker as well as on broodstock spawning performance. Results showed that artificial noise consisting of a linear sweep from 100 to 1000 Hz can induce a transient and mild cortisol elevation with a clear noise intensity dose response. In all cases plasma levels returned to baseline levels <1 h post sound exposure. Daily exposure to a similar intensity and frequency noise range applied habitually to a broodstock population during the spawning window resulted in a significant reduction in total egg production and fertilisation rates thus reducing the total production of viable embryos by over 50%. In addition, a significant negative correlation between egg cortisol content and fertilisation rate was observed. These results confirm that cod can perceive noise generated within a frequency range of 100–1000 Hz and display a heightened cortisol plasma level. In addition, anthropogenic noise can have negative impacts on cod spawning performances. It is important to note that several other commercially important fish such as herring are also sensitive to sound and vibration.

Wind turbine underwater noise and marine mammals: implications of current knowledge and data needs. P. T. Madsen1,*, M. Wahlberg2, J. Tougaard3, K. Lucke4, P. Tyack1
ABSTRACT: The demand for renewable energy has led to construction of offshore wind farms with high-power turbines, and many more wind farms are being planned for the shallow waters of the world's marine habitats. The growth of offshore wind farms has raised concerns about their impact on the marine environment. Marine mammals use sound for foraging, orientation and communication and are therefore possibly susceptible to negative effects of man-made noise generated from constructing and operating large offshore wind turbines. This paper reviews the existing literature and assesses zones of impact from different noise-generating activities in conjunction with wind farms on 4 representative shallow-water species of marine mammals. Construction involves many types of activities that can generate high sound pressure levels, and pile-driving seems to be the noisiest of all. Both the literature and modeling show that pile-driving and other activities that generate intense impulses during construction are likely to disrupt the behavior of marine mammals at ranges of many kilometers, and that these activities have the potential to induce hearing impairment at close range. The reported noise

levels from operating wind turbines are low, and are unlikely to impair hearing in marine mammals. The impact zones for marine mammals from operating wind turbines depend on the low-frequency hearing-abilities of the species in question, on sound-propagation conditions, and on the presence of other noise sources such as shipping. The noise impact on marine mammals is more severe during the construction of wind farms than during their operation.

Low-frequency noise pollution impairs burrowing activities of marine benthic invertebrates☆
Sheng V. Wang, Alexa Wrede, Nelly Tremblay, Jan Beermann.
Abstract: Sounds from human activities such as shipping and seismic surveys have been progressively invading natural soundscapes and pervading oceanic ambient sounds for decades. Benthic invertebrates are important ecosystem engineers that continually rework the sediment they live in. Here, we tested how low-frequency noise (LFN), a significant component of noise pollution, affects the sediment reworking activities of selected macrobenthic invertebrates. In a controlled laboratory setup, the effects of acute LFN exposure on the behavior of three abundant bioturbators on the North Atlantic coasts were explored for the first time by tracking their sediment reworking and bioirrigation activities in noisy and control environments via luminophore and sodium bromide (NaBr) tracers, respectively. The amphipod crustacean *Corophium volutator* was negatively affected by LFN, exhibiting lower bioturbation rates and shallower luminophore burial depths compared to controls. The effect of LFN on the polychaete *Arenicola marina* and the bivalve *Limecola balthica* remained inconclusive, although *A. marina* displayed greater variability in bioirrigation rates when exposed to LFN. Furthermore, a potential stress response was observed in *L. balthica* that could reduce bioturbation potential. Benthic macroinvertebrates may be in jeopardy along with the crucial ecosystem-maintaining services they provide. More research is urgently needed to understand, predict, and manage the impacts of anthropogenic noise pollution on marine fauna and their associated ecosystems.

Sound detection by the American lobster (Homarus americanus) Youenn Jézéquel, Ian T. Jones, Julien Bonnel, Laurent Chauvaud, Jelle Atema and T. Aran Mooney
Abstract - Although many crustaceans produce sounds, their hearing abilities and mechanisms are poorly understood, leaving uncertainties regarding whether or how these animals use sound for acoustic communication. Marine invertebrates lack gas-filled organs required for sound pressure detection, but some of them are known to be sensitive to particle motion. Here, we examined whether the American lobster (Homarus americanus) could detect sound and subsequently sought to discern the auditory mechanisms. Acoustic stimuli responses were measured using auditory evoked potential (AEP) methods. Neurophysiological responses were obtained from the brain using tone pips between 80 and 250 Hz, with best sensitivity at 80–120 Hz. There were no significant differences between the auditory thresholds of males and females. Repeated controls (recordings from deceased lobsters, moving electrodes away from the brain and reducing seawater temperature) indicated the evoked potentials' neuronal origin. In addition, AEP responses were similar before and after antennules (including statocysts) were ablated, demonstrating that the statocysts, a long-proposed auditory structure in crustaceans, are not the sensory organs responsible for lobster sound detection. However, AEPs could be eliminated (or highly reduced) after immobilizing hairfans, which cover much of lobster bodies.

These results suggest that these external cuticular hairs are likely to be responsible for sound detection, and imply that hearing is mechanistically possible in a wider array of invertebrates than previously considered. Because the lobsters' hearing range encompasses the fundamental frequency of their buzzing sounds, it is likely that they use sound for intraspecific communication, broadening our understanding of the sensory ecology of this commercially vital species. The lobsters' low-frequency acoustic sensitivity also underscores clear concerns about the potential impacts of anthropogenic noise.

Effects of pile driving sound playbacks and cadmium co-exposure on the early life stage development of the Norway lobster, *Nephrops norvegicus* C.A. Stenton, E.L. Bolger, M. Michenot, J.A. Dodd, M.A. Wale, R.A. Briers, M.G.J. Hartl, K. Diele. Abstract There is an urgent need to understand how organisms respond to multiple, potentially interacting drivers in today's world. The effects of the pollutants anthropogenic sound (pile driving sound playbacks) and waterborne cadmium were investigated across multiple levels of biology in larval and juvenile Norway lobster, *Nephrops norvegicus* under controlled laboratory conditions. The combination of pile driving playbacks (170 dBpk-pk re 1 µPa) and cadmium combined synergistically at concentrations >9.62 µg[Cd] L 1 resulting in increased larval mortality, with sound playbacks otherwise being antagonistic to cadmium toxicity. Exposure to 63.52 µg[Cd] L 1 caused significant delays in larval development, dropping to 6.48 µg[Cd] L 1 in the presence of piling playbacks. Pre-exposure to the combination of piling playbacks and 6.48 µg[Cd] L 1 led to significant differences in the swimming behaviour of the first juvenile stage. Biomarker analysis suggested oxidative stress as the mechanism resultant deleterious effects, with cellular metallothionein (MT) being the predominant protective mechanism.

Effects of Offshore Wind Farm Noise on Marine Mammals and Fish. Thomsen, F., Lüdemann, K., Kafemann, R. and Piper, W. (2006). Executive Summary: Since the beginning of the planning and installation of offshore wind farms, the possible impacts on marine mammals and fish have been discussed intensively within the public and the scientific community. Especially the noise created during pile-driving operations involves sound pressure levels that are high enough to impair the hearing system of marine mammals near the source and disrupt their behaviour at considerable distance from the construction site. Previous investigations also indicated that the construction phase will have considerable effects on fish species common in northern European waters. The goal of this study was to provide a further assessment on the effects of offshore wind farm related noise on selected marine mammal and fish species.
Measurements of pile-driving noise were obtained as peak sound pressure levels and sound exposure levels in 1/3 octave bands from a jacket-pile construction in the German Bight. Operational noise was measured in peak sound pressure levels and equivalent sound pressure levels in 1/3 octave bands in 110 m distance from a 1.5 MW turbine in Sweden. Based on these measurements, sound levels at various distances from the source were calculated and zones of noise influences were assessed based on published data.
The broadband peak sound pressure level during pile-driving was 189 dB0-p re 1 µPa (SEL = 166 dB re 1 µPa2 . s) at 400 m distance, resulting in a peak broadband source level of 228 dB0-p re 1 µPa at 1 m (SEL = 206 dB re 1 µPa2 . s at 1 m). The 1/3 octave sound pressure level was highest at 315 Hz (peak = 218 dB0-p re 1 µPa at 1 m) with considerable pressures above 2 kHz.

Values for the impact assessment were extrapolated for larger pile-diameters after recent measurements performed in the same area. During operation, the 1/3 octave sound pressure levels ranged between < 90 and 142 dBLeq re 1 µPa at 1m with most energy at 50, 160 and 200 Hz, at wind-speeds of 12 m/s.
For harbour porpoises and harbour seals, the zone of audibility for pile-driving will most certainly extend well beyond 80 km, perhaps hundreds of kilometres from the source. Behavioural responses are possible over many kilometres, perhaps up to ranges of 20 km. Masking might occur in harbour seals at least up to 80 km and hearing loss might be a concern – on the basis of a regulatory approach - at 1.8 km in porpoises and 400 m in seals. Further, severe injuries in the immediate vicinity of ramming activities can not be ruled out. Operational noise of smaller turbines of 1.5 MW should have only minor influence as the detection radii for both species are rather small. However, since operational noise of larger turbines can not be assessed reliably yet, these results are rather preliminary. It is very likely that larger turbines are noisier resulting in much larger zones of noise influence.
Cod and herring will be able to perceive piling noise at large distances, perhaps up to 80 km from the sound source. Dab and salmon might detect pile-driving pulses also at considerable distances from the source. However, since both species are predominantly sensitive for particle motion and not pressure, the detection radius can not be defined yet. Behavioural effects are possible due to piling noise. The spatial extension of the zone of responsiveness can not be calculated, as the available threshold levels vary greatly. The zone of potential masking might in some cases coincides with the zone of audibility. Also physical effects, like internal or external injuries or deafness (TTS/PTS) up to cases of mortality, are possible in the close vicinity to piledriving.
Operational noise of wind turbines will be detectable up to a distance of app. 4 km for cod and herring, and probably up to 1 km for dab and salmon. Within this zone, also masking of intraspecific communication is possible. Behavioural and/or physiological (stress) effects are possible due to operational wind farm noise. However, they should be restricted to very close ranges.

A fine-scale marine mammal movement model for assessing long-term aggregate noise exposure. Ruth Joy, Robert S. Schick, Michael Dowd, Tetyana Margolina, John E. Joseph, Len Thomas. Understanding the impacts of anthropogenic sound on marine mammals is important for effective mitigation and management. Sound impacts can cause behavioral changes that lead to displacement from preferred habitat and can have negative influence on vital rates. Here, we develop a movement model to better understand and simulate how whales respond to anthropogenic sound over ecologically meaningful space and time scales. The stochastic model is based on a sequential Monte Carlo sampler (a particle filter). The movement model takes account of vertical dive information and is influenced by the underwater soundscape and the historical whale distribution in the region. In the absence of noise disturbance, the simulator is shown to recover the historical whale distribution in the region. When noise disturbance is incorporated, the whale's behavioral response is determined through a dose response function dependent on the received level of sound. The aggregate impact is assessed by considering both the duration of foraging loss and the spatial shift to alternate (and potentially less favorable) habitat. Persistence of the behavioral response in time is treated

through a 'disruption' parameter. We apply the approach to a population of fin whales whose distribution overlaps naval sonar testing activities beside the Southern California range complex. The simulation shows the consequences of one year of naval sonar disturbance are a function of: i) how loud the sound source is, ii) where the disturbed whales are relative to preferred (high density) habitat, and iii) how long a whale takes before returning to a pre-disturbance state. The movement simulator developed here is a generic movement modeling tool that can be adapted for different species, different regions, and any acoustic disturbances with known impacts on animal populations.

5. Electromagnetic Fields/Power Cables

Review of the effects of underwater sound, vibration and electromagnetic fields on crustaceans. May 2020. Dr Kevin Scott, Althea JR Piper, Erica CN Chapman, and Corentine MV Rochas. Scott, K., Piper, A.J.R. Chapman, E.C.N. & Rochas, C.M.V., 2020. Review of the effects of underwater sound, vibration and electromagnetic fields on crustaceans. Seafish Report.
Summary: This report was written to support the UK seafood industry when engaging with offshore development proposals that may result in anthropogenic sound, seabed substrate-borne vibration, and Electromagnetic Fields (EMFs). Table 1 provides an overview of the existing literature concerning the effects of these stressors on crustacean species across the world. Most of this work does not cover species of commercial significance in the UK. A key point to note is that most of these studies used sources mimicking the stressor type, rather than exposing individuals to the actual stressor (e.g. boat noise). This literature review highlights the lack of knowledge on the effects of noise, vibration, and EMFs on crustaceans. Limited research with mixed results precludes the ability to draw overall conclusions but highlights the potential for these stressors to have an influence on crustaceans in general and the necessity of future research to identify vulnerable species and life stages.

• Noise studies on UK commercially important crustaceans are very limited. Robust knowledge of known sensitivities to noise and vibration have not been documented, nor have behavioural and physiological changes at different parts of the life cycle. However, the ecosystem engineering behaviours and bioirrigation of the Norway lobster (Nephrops norvegicus) are influenced by shipping and construction noise. In addition, a PhD thesis noted alteration of different aspects of the Norway lobster's larval life cycle in response to shipping noise, which can lead to a reduction in predator avoidance stamina. Shipping noise was also suggested to elicit avoidance behaviour in the European lobster (Homarus gammarus) in another PhD thesis.

• Particle motion (the movement of particles around a sound wave to allow for its transmission) is the aspect of noise most likely detected by crustaceans. A modelling study suggested that particle motion can be detected on the seafloor up to 400 m from a pile driving site.

• Crustaceans have the ability to detect and utilise EMF with a relatively high degree of sensitivity. As a result, environmental fluctuations caused by Marine Renewable Energy Devices (MREDs) may have a multitude of effects on crustacean behaviour and physiology.

• Exposure to EMF has been shown to alter adult edible crab (Cancer pagurus) and European lobster physiology and larval development resulting in significantly smaller size individuals. Circadian rhythms were disrupted in both species, possibly due to increased anaerobic

respiration and potentially the onset of hyperglycaemia - both known responses to stress - although longer term studies are required to confirm this. Edible crabs were affected behaviourally whereby attraction to EMF source potentially overrides natural foraging behaviours, whilst there have been mixed European lobster behaviour results. European lobsters have also shown an immune response to EMF exposure, as observed through a significant change in haemocyte levels.

• It is possible that crustaceans will be exposed to both noise and EMF simultaneously, or within short time periods, particularly surrounding windfarm and other MRED construction and operation. There are currently no research papers looking at the combined effects of noise, vibration, and EMF on crustaceans. Excellent document that describes data gaps, future research needs and highlights the limited number of current studies published on impacts of OSW. Although more studies have been published since 2020, many of them are computer model-based research. The empirical data collected from actual wind farms vs the accuracy, limitations, and assumptions of model data is invaluable.

The Effects of Anthropogenic Electromagnetic Fields (EMF) on the Early Development of Two Commercially Important Crustaceans, European Lobster, Homarus gammarus (L.) and Edible Crab, Cancer pagurus (L.) https://doi.org/10.3390/jmse10050564 Harsanyi, P.; Scott, K.; Easton, B.A.A.; de la Cruz Ortiz, G.; Chapman, E.C.N.; Piper, A.J.R.; Rochas, C.M.V.; Lyndon, A.R.
Abstract: Proposed offshore windfarm sites could overlap with the brooding and spawning habitats of commercially important crustacea, including European lobster, Homarus gammarus and Edible crab, Cancer pagurus. Concerns have been raised on the biological effects of Electromagnetic Fields (EMFs) emitted from subsea power cables on the early life history of these species. In this study, ovigerous female H. gammarus and C. pagurus were exposed to static (Direct Current, DC) EMFs (2.8 mT) throughout embryonic development. Embryonic and larval parameters, deformities, and vertical swimming speed of freshly hatched stage I lobster and zoea I crab larvae were assessed. EMF did not alter embryonic development time, larval release time, or vertical swimming speed for either species. Chronic exposure to 2.8 mT EMF throughout embryonic development resulted in significant differences in stage-specific egg volume and resulted in stage I lobster and zoea I crab larvae exhibiting decreased carapace height, total length, and maximum eye diameter. An increased occurrence of larval deformities was observed in addition to reduced swimming test success rate amongst lobster larvae. These traits may ultimately affect larval mortality, recruitment and dispersal. This study increases our understanding on the effects of anthropogenic, static EMFs on crustacean developmental biology and suggests that EMF emissions from subsea power cables could have a measurable impact on the early life history and consequently the population dynamics of H. Gammarus and C. pagurus. . This is an important study for commercial fishing industry reliant on crustacean harvesting.

Electromagnetic Field (EMF) Impacts on Elasmobranch (shark, rays, and skates) and American Lobster Movement and Migration from Direct Current Cables U.S. Hutchison, Z. L., P. Sigray, H. He, A. B. Gill, J. King, and C. Gibson, 2018. Electromagnetic Field (EMF) Impacts on Elasmobranch (shark, rays, and skates) and American Lobster Movement and Migration from Direct Current Cables. Sterling (VA): U.S. Department of the Interior, Bureau of Ocean Energy Management. OCS Study BOEM 2018-003. In 2014, The University of Rhode Island and key partners were contracted by the Bureau of Ocean Energy Management (BOEM) to conduct a two-year study entitled "Electromagnetic Field (EMF) Impacts on Elasmobranch (sharks, rays, and skates) and American Lobster Movement and Migration from Direct Current Cables." The BOEM-URI project had five major components:

1. A synthesis of existing information published subsequent to the report entitled " Effects of EMFs from Undersea Power Cables on Elasmobranchs and Other Marine Species" (Normandeau et al., 2011) for BOEM on EMF and the potential effects on marine species;
2. Field surveys to characterize the EMF from two high voltage direct current (HVDC) cables; the Cross Sound Cable (CSC) and the Neptune Cable;
3. A computer model to predict the EMF generated by HVDC cables and a comparison of EMF model predictions with EMF field measurements for validation and to determine if the model could be extrapolated to higher capacity cables that are likely to be installed in the future;
4. A statistically robust field experiment that would detect potential effects of EMF from HVDC cables on the movements of marine species (American lobster, Homarus americanus and Little skate, Leucoraja erinacea) of concern; and
5. An integration, interpretation and evaluation of the multidisciplinary findings

A review of potential impacts of submarine power cables on the marine environment: knowledge gaps, recommendations and future directions. Bastien Taormina, Juan Bald, Andrew Want, Gérard Thouzeau, Morgane Lejart, Nicolas Desroy, Antoine Carlier. Abstract Submarine power cables (SPC) have been in use since the mid-19th century, but environmental concerns about them are much more recent. With the development of marine renewable energy technologies, it is vital to understand their potential impacts. The commissioning of SPC may temporarily or permanently impact the marine environment through habitat damage or loss, noise, chemical pollution, heat and electromagnetic field emissions, risk of entanglement, introduction of artificial substrates, and the creation of reserve effects. While growing numbers of scientific publications focus on impacts of the marine energy harnessing devices, data on impacts of associated power connections such as SPC are scarce and knowledge gaps persist. The present study (1) examines the different categories of potential ecological effects of SPC during installation, operation and decommissioning phases and hierarchizes these types of interactions according to their ecological relevance and existing scientific knowledge, (2) identifies the main knowledge gaps and needs for research, and (3) sets recommendations for better monitoring and mitigation of the most significant impacts. Overall, ecological impacts associated with submarine power cables can be considered weak or moderate, although many uncertainties remain, particularly concerning electromagnetic effects. Many of the studies available in the published literature have been conducted on behalf of a renewable energy proponent or governmental energy department as in this case the authors are.

Risk to Animals from Electromagnetic Fields Emitted by Electric Cables and Marine Renewable Energy Devices. OES-ENVIRONMENTAL 2020 STATE OF THE SCIENCE REPORT. SECTION B – CURRENT KNOWLEDGE OF KEY DEVICE INTERACTIONS WITH THE MARINE ENVIRONMENT Chapter 5, Authors: Andrew B. Gill, Marieke Desender. "..The measurement data needed to validate EMF models are lacking." No studies concerning E-fields in the predictive range associated with MRE devices have been conducted to date, largely because the industry is still emerging and power generation levels are relatively low and isolated, and EMF studies have seldom been required in the marine environment for established industries. This section of the report mentions many relevant recent scientific studies and data gaps.

EFFECTS OF EMFS FROM UNDERSEA POWER CABLES ON ELASMOBRANCHS AND OTHER MARINE SPECIES. Normandeau, Exponent, T. Tricas, and A. Gill. 2011. Effects of EMFs from Undersea Power Cables on Elasmobranchs and Other Marine Species. U.S. Dept. of the Interior, Bureau of Ocean Energy Management, Regulation, and Enforcement, Pacific OCS Region, Camarillo, CA. OCS Study BOEMRE 2011-09. Normandeau, Exponent, T. Tricas, and A. Gill. 2011. Effects of EMFs from Undersea Power Cables on Elasmobranchs and Other Marine Species. U.S. Dept. of the Interior, Bureau of Ocean Energy Management, Regulation, and Enforcement, Pacific OCS Region, Camarillo, CA. OCS Study BOEMRE 2011-09. Anthropogenic electromagnetic fields (EMFs) have been introduced into the marine environment around the world and from a wide variety of sources for well over a century. Despite this, little is known about potential ecological impacts from EMFs. For decades, power transmission cables have been installed across bays and river mouths, and connecting near-shore islands to the mainland, with little consideration of possible effects to marine species from EMFs. At a time of greater environmental awareness, the US now faces the possibility of a new source of EMFs over a much greater extent of the seabed from offshore renewable energy facilities in coastal waters. This literature review synthesizes information on the types of power cables and models the expected EMFs from representative cables. Available information on electro- and magnetosensitivity of marine organisms, including elasmobranchs (sharks and rays) and other fish species, marine mammals, sea turtles, and invertebrates is summarized and used in conjunction with the power cable modeling results to evaluate the level of confidence the existing state of knowledge provides for impact assessment. Gaps in our knowledge of power cable characteristics and the biology needed to understand and predict impacts are summarized and form the basis of recommendations for future research priorities. Potential mitigation opportunities are described with a discussion of their potential secondary impacts as well as suggested methods for monitoring mitigation effectiveness. Finally, because interest in offshore renewable energy has increased throughout US coastal waters, there is a concern that organisms could be exposed to multiple seabed power cables. Cumulative effects of this exposure are discussed.

Effects of Electromagnetic Fields on Fish and Invertebrates Task 2.1.3: Effects on Aquatic Organisms Fiscal Year 2011 Progress Report, Environmental Effects of Marine and Hydrokinetic Energy , DL Woodruff JA Ward, IR Schultz VI Cullinan, KE Marshall May 2012 Prepared for the

U.S. Department of Energy under Contract DE-AC05-76RL01830 Pacific Northwest National Laboratory. Richland, Washington 99352. Abstract: This fiscal year (FY) 2011 progress report (Task 2.1.3 Effects on Aquatic Organisms, Subtask 2.3.1.1 Electromagnetic Fields) describes studies conducted by PNNL as part of the DOE Wind and Water Power Program to examine the potential effects of electromagnetic fields (EMF) from marine and hydrokinetic (MHK) devices on aquatic organisms, including freshwater and marine fish and marine invertebrates. In this report, we provide a description of the methods and preliminary results of experiments conducted in FY 2010–FY 2011 to evaluate potential responses of selected aquatic organisms. Preliminary EMF laboratory experiments during FY 2010 and 2011 entailed exposures with representative fish and invertebrate species including juvenile coho salmon (Oncorhynchus kisutch), Atlantic halibut (Hippoglossus hippoglossus), California halibut (Paralicthys californicus), rainbow trout (Oncorhynchus mykiss), and Dungeness crab (Metacarcinus magister). These species were selected for their ecological, commercial, and/or recreational importance, as well as their potential to encounter an MHK device or transmission cable during part or all of their life cycle. EMF intensities during the various tests ranged between approximately 0.1 and 3 millitesla, representing a range of expected upper bounding conditions that might be encountered at a field location, according to values currently reported in the literature. Based on previous studies, acute effects such as mortality were not expected to occur from EMF exposures. Therefore, our measurement endpoints focused on developmental changes (i.e., growth and survival from egg or larval stage to juvenile), exposure markers indicative of physiological responses, or behavioral responses (e.g., detection of EMF, interference with feeding behavior, avoidance or attraction to EMF) for the various species. Data analysis is still in progress, however preliminary results to date have shown few statistically significant laboratory responses to elevated EMF intensities for the aquatic species and endpoints tested. Further testing and replication is needed to verify and expand on these results. Additional species are currently planned for laboratory testing in the next fiscal year (e.g. American lobster, an elasmobranch) to provide a broader assessment of species important to stakeholders. A concern with using this study for offshore wind in Nova Scotia, authors used an EMF strength of 3 mT, we have no definitive information about expected EMF levels from a 15MW turbine or a 300MW wind farm. Experiments with Atlantic halibut suggested that a high EMF exposure may have reduced both growth and development in early life stages, although neither was statistically different from the controls. This halibut experiment experienced a high mortality rate with 80% mortality by end of experiment. Therefore, animals that were assessed during this study were less than 30 fish. Experiments with California halibut showed no change in growth or development. Developmental experiments using rainbow trout addressed the potential exposure of fertilized eggs to transmission cables in riverine settings. There was no apparent affect on fertilization success rate. Although not statistically significant, exposure of fertilized trout eggs to EMF for extended periods appeared to delay the rate of egg development. The salmonid alarm response endpoint was inconclusive, concurrent exposure marker experiments showed no evidence of stress as measured by levels of cortisol in juvenile salmon. Decreases in melatonin levels, involved in smoltification of salmonids (Gern et al. 1984), were observed, however were not statistically significant. During Dungeness crabs EMF exposure, antennular flicking rate decreased slightly but was not significantly

different from rates measured before EMF exposure. Likewise, the flicking rate response to a food odor decreased slightly after exposure to EMF but was not statistically significant. Initial avoidance/attraction experiments have shown some evidence of subtle changes in behavior (e.g., amount of time buried, number of changes and variability in activity through time). However, these results are preliminary, and replication of the experiments and further analysis of the data are warranted to understand their meaning. The potential effect of EMF on fertilized eggs is concerning to us. We would love this study to be repeated and see if reproducibility occurs.

6. Socioeconomic

Socioeconomic impact study of offshore wind. DANISH SHIPPING, WIND DENMARK AND DANISH ENERGY WITH SUPPORT FROM THE DANISH MARITIME FOUNDATION July 1st, 2020 Final Technical Report

Workshop on socio-economic Implications of Offshore Wind on Fishing Communities (WKSEIOWFC) ICES. 2021. Workshop on Socio-economic Implications of Offshore Wind on Fishing Communities (WKSEIOWFC). ICES Scientific Reports. 3:44. 33 pp. https://doi.org/10.17895/ices.pub.8115. Section 6, page 18. **Conclusion and Recommendations** - Developing best practices in managing fisheries & OWF interactions. WKSEIOWFC demonstrated the importance of improving our understanding of the socio-eco-nomic implications of OWF and fisheries interactions. The event was attended by participants from nine countries who represented policy/regulation, the fishing and OWF industries, consultants and academia.

The workshop allowed us to describe, summarise and illustrate perceptions of the various potential environmental, economic and cultural effects that offshore wind development may have on fisheries. Moreover, we were able to highlight the complexity and interconnectedness of the issues under discussion.

We further explored common issues between European and US regions such as complex inter-actions of new OWF technologies in combination with traditional fisheries that are strongly linked to the identity of coastal communities. Similarities identified across regions such as lacking integrated, appropriately-scaled and commonly-defined fisheries assessment frameworks, as well as the scientific uncertainty associated with surveys beyond the turbine scale, helped us to define issues that need to be addressed in the future. In addition, key differences were identified between European and US regions, noting that intra-regional differences exist within Euro-pean jurisdictions and within US regions. Notable key differences include the policy and governance structures both for offshore wind permitting and for fisheries management; fisheries in Europe have a longer history of interacting with installed wind projects than fisheries in the US and this may contribute to greater perceived uncertainty in US; further, the scale and cultural significance of fisheries in general is much greater in some geographic regions than in others.

Evidence and data gaps were mostly related to identifying thresholds for positive and negative impacts, the acceptability and feasibility of co-location and the fishers' responses to displacement. The latter is particularly important as the fishers' behaviour can be driven by social factors such as working rhythm (Schadeberg et al. 2021), which need to be understood in order to assess the real impact of OWF development on fisheries.

An expanded, future effort should further explore the three-dimensionality of effects we describe in our conceptual representation of the interactions between environmental, economic and social/cultural changes, and how these different elements were partitioned into the three main workshop themes (Fig. 1). Further, it needs to address the effect of multiple OWF, the effects of OWF in combination with other human and external drivers of change (while likely not an exhaustive list, some examples provided during the workshop included shipping and transport, climate change, or the COVID-19 pandemic).

In conclusion, more research is needed to assess potential impacts of the development of OWF on the fishing sector, fishing communities and economic activities onshore. The results of this workshop will be carried further as the WGOWDF addresses its ToR A. This will include the following efforts: further analyse, review, and summarise the results of mental models, identify linkages between different model dimensions, evaluate and identify metrics for measuring important factors and conditions for each of the sub-models, and identify and prioritise where there are data gaps requiring new research. This understanding can be used to foster information exchanges, collaboratively address science questions, and support decision-making. These activities are considered to have a very high priority on a global level, especially as offshore wind energy expands.

Making Waves: THE ECONOMIC CONTRIBUTION OF THE SEAFOOD INDUSTRY TO NOVA SCOTIA. Pisces Consulting Limited October 2022. Most recent economic data for fishery in Nova Scotia. We suggest an economic impact assessment for Atlantic Canadian fisheries report be prepared for 5GW offshore wind capacity in NS.



January 13, 2025

The Guysborough County Inshore Fishermen's Association (GCIFA) is a not-for-profit commercial fishing organization. GCIFA is an accredited non-profit association under the Fisheries Organization Support Act, registered with the Registry of Joint Stock. The association is made up of core fishermen and crewmembers that reside and fish in the County of Guysborough, NS. There are 140 members of multi-species license holders with fisheries conducted in the inshore, mid-shore and offshore. The association has a volunteer board of directors who are elected from the membership. We have been conducting our own fisheries science for over 20 years in Guysborough County paid for by the fishermen.

We would like to provide comments and feedback to the CNSOER regarding the offshore wind call for information NS25-1R. We appreciate the opportunity to participate in discussions concerning our shared ocean space.

Regional Assessment Recommendations

The final Report was published by the RA Committee January 2025. This is a fairly new document with over 25 recommendations. Most recommendations have not been implemented yet. It identified data gaps and research that needs to be conducted in NS coastal waters. Socioeconomic studies that need to be completed. If these recommendations are not at least initiated before submerged land leases are approved, it could leave data gaps of necessary baseline data that energy proponents/other marine users require in the future.

The Regional Assessment final document also details directions for compensation discussions. GCIFA recommends the recommendations of the RA report be implemented and the time be allocated for these tasks to occur, before submerged land leases are approved.

Appendix 10.1 List of Committee Recommendations

Theme	Theme Number	Recommendation
Existing knowledge, gaps and necessary research	T1-1	Develop a Scotian Shelf Collaborative Research Initiative (SSCRI)
	T1-2	Fund *Mi'kmaw Ecological Knowledge Studies* (MEKS)
	T1-3	Create a shared repository of data and sources
	T1-4	Provide support for ongoing research in federal departments on modelling and marine spatial planning
	T1-5	Provide funding to Mi'kmaw organizations for research on adaptive management
	T1-6	Prioritize and expand the general collection of environmental data, especially in the vicinity of the PDAs, within the RA Study Area
	T1-7	Open discussions with third parties to contribute to and develop a mutually supportive research agenda associated with their proposed floating OSW test site
	T1-8	Establish Participant Funding to last at least five years
Socio-economic feasibility and consequences	T2-1	Establish a Port Advisory Group
	T2-2	Undertake Class D (conceptual design) cost estimate and model impacts
	T2-3	Adopt a regional/national planning approach for the Nova Scotia Offshore Wind Roadmap
	T2-4	Initiate socio-economic studies for key communities
	T2-5	Engage the Nova Scotia Department of Education and Early Childhood Development, and the Department of Labour, Skills and Immigration in the evolution of the OSW Roadmap
	T2-6	Establish targeted immigration and recruitment programs to attract foreign specialists
	T2-7	Compile a database on GBA Plus research specific to the OSW industry
Project development	T3-1	Establishment of a 25 km coastal buffer zone
	T3-2	Adoption of Tier 1 and Tier 2 Proposed Development Areas (PDAs)
	T3-3(a-f)	Development of Bid criteria and bidder pre-qualification
	T3-4	Development of guidelines regarding in-field personnel transfers
	T3-5	Requirement for adequate security related to abandonment and decommissioning activities
Coexistence and compensation	T4-1	Adoption of the principle of compensating for economic loss
	T4-2	Development of a more comprehensive baseline characterization of the fishery

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	T4-3	Adoption of coexistence as a key objective
	T4-4	Development of a compensation guideline by the Working Group
	T4-5	Establish an industry wide funding model based on equitable distribution of liability among OSW leaseholders
	T4-6	Establish participation funding to support fishers in implementing these recommendations
Cumulative effects	T5-1	Recognize that responsibility for cumulative effects is shared and tiered
	T5-2	Prepare guidelines and data sources for developers
Governance	T6-1	CNSOER to prepare best practice guidelines and guidance documents for the OSW industry
	T6-2	Recommend First Nation representation on CNSOER Board
	T6-3	Recommend that project-specific federal impact assessments for OSW projects are required
	T6-4	Consider requiring all vessels to have an approved vessel tracking system installed and operating while in the RA Study Area
	T6-5	DFO to review management and regulatory processes to update historic information where necessary, in order to enhance understanding of ecosystem processes and human activities on the Scotian Shelf
Education and training	T7-1	Nova Scotia Department of Education and Early Childhood Development and the Department of Advanced Education to work with elementary, middle and high schools, colleges and universities to develop curriculum, educational and training programs related to OSW and other renewables
	T7-2	Nova Scotia Department of Labour, Skills and Immigration and Department of Advanced Education to develop curriculum for new upskilling, retraining and micro-credential programs to enable the current marine workforce to transition into new roles in support of OSW development

We suggest a research initiative with a priority focused on WEAs where energy proponents have expressed interest.

We request a socio-economic historical and cultural use of fishing banks report. A socio-economic risk analysis of the commercial fisheries on the eastern shore encompassing the 2 WEAs is also recommended. {French Bank WEA & Middle Bank WEA} It is currently not known how important and crucial these areas are to seafood sector. We encourage investigation of the traditional and cultural knowledge/usage of the four WEAs. Commercial fishing usage of the banks off Guysborough County go back four centuries. Misaine, Canso and French Bank have historical and cultural importance to the fishing industry. The fishing off Canso was world famous and known as the most lucrative fishing area in all of North America. For centuries these marine banks have sustained our coastal communities and provided not only a local source of food but also our way of life. Hundreds of Spanish, British and Portuguese fishing fleets flocked to Guysborough County each year to fish these banks, long before Canada existed as a sovereign nation. This fishing ultimately leading to more permanent settlements which lead to the birth of our country. To summarize the cultural importance of these fishing banks is impossible to put into words.

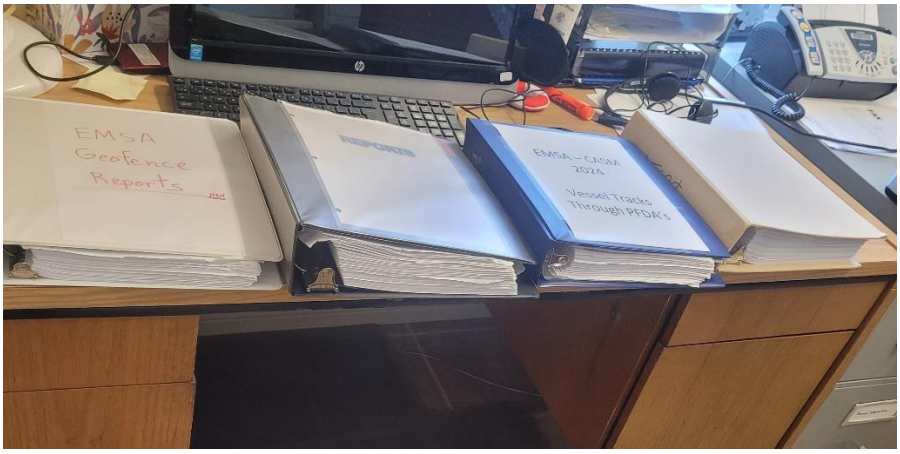
GCIFA requests a Marxan analysis be performed for the full energy proposed for the WEAs. If 5 GW is not the end goal, then perform the analysis for the full amount of 66 GW? While also keeping the 90% commercial fisheries landings parameter selected in the initial Marxan Zones analysis performed by Nagel et Al. The goal posts keep moving. The goal was

5 GW, now there are plans for more in the 2nd call for bids. GCIFA requests a marine spatial plan for the full amount of energy projects planned for the Scotian Shelf.

We ask the CNSOER, DOE and NRCAN to be transparent with other marine users, show us the marine traffic simulations that departments have run on different scenarios, 25 turbines, 80 turbines etc.

We need to be part of the conversation about placement of navigation corridors where fishers need them, it will require fisheries input. We also need to be mindful about other marine users. The placement of navigation corridors where shipping, oil tankers and cargo vessels require them, stakeholder engagement from other industries is needed.

The final designation of the WEAs occurred July 29, 2025. That was 5 months ago. Therefore, we have had 5 months to monitor our fishing activity in these spaces. That is not enough time. GCIFA has not had a chance to monitor the fisheries that occur in the spring/summer within these new WEAs. The ocean spaces under consideration for renewable energy have changed numerous times over the last 18 months. This means GCIFA nor any other fishing organization has not had an opportunity to observe a single spring, summer fishery within the WEAs. How can you expect the fishing industry to know the historical, current and future use of these areas when we have not had the time to collect the necessary data sets on this aspect of our industry. Why is it on the fishing industry to complete this task? Shouldn't the CNSOER hire a consultant to compete this task?



GCIFA has four 4-inch binders of AIS data on marine traffic within the PDAs/WEAs. See image above. We have highlighted and counted all fishing vessel traffic in the data set. We have been collecting this data set for over 18 months. It has been a moving target as the areas under consideration keep changing but nevertheless this data set is a great starting

point. The number of departments, organizations and companies submitting requests to GCIFA for this data set is zero. We have not had any requests from anyone for this data. A consultant could have quickly reviewed this data set and produced a report on 2024/2025 usage of the WEAs. But that did not happen. GCIFA concludes no one wants to see this data. It appears all government departments would like to ignore this data set exists. This continues to place the onus on the fishing industry to collect, compile, and self represent our interests to the proponents after submerged land license are issued. This feels like an act of abandonment from government. The same government that has issued our harvesters a license to harvest seafood in the WEAs. If a consultant or government department would like this data, feel free to contact GCIFA to acquire it. Our staff have spent hundreds of hours compiling this data. We are a small not-for-profit fishing industry organization that struggles to find funding to keep our staff hired seasonally. The time and resources this association has spent on offshore wind development is astronomical, and excessive.

Why is the public and the fishing industry being asked to offer our feedback on a blank map of the WEA? We should not have to complete this task blind. The data from the hydrographic surveys, depth and seafloor substrate type are completed. The areas that are clearly not suitable for wind development due to substrate/depth constraints or other characteristics are known to proponents and NRCAN. The maps of good wind areas, good substrate, bad substrate have been identified by developers/NRCAN by now. Please disclose those areas on maps and release them back to the fishing industry. There is no reason we should have to conduct this exercise blind. Assessing commercial fishing usage over 12,549 km^2 of area is a daunting task, when in fact the area that can house renewable energy infrastructure is likely less than 1/3 of this WEA. Why are we wasting our time.

GCIFA requests all submerged land leases to respect the 25 km buffer from shore. This is recommendation T3-1 from the Regional Assessment Final Report. Issuing a submerged land license to a renewable energy company 12 n miles from shore is unnecessary, blatant disrespect to the fishing industry, will disrupt the shipping corridors, could endanger the lives of all mariners, and increase marine spills to coastal waters.

The Provincial/Federal departments have chosen not to include Sable Island WEA in the current call for bids and did not designate Western/Emerald Bank as a WEA. Now instead of spreading this renewable energy across the Scotian shelf to mitigate impacts to other marine users. All 5 GW of renewable energy projects will now be placed in the 3 WEA's remaining, that's over 300 turbines. Two of the three WEAs are off Guysborough County in inshore/mid shore waters.

GCIFA reiterates that in order to protect the inshore lobster fishery, high groundfish landings, the eastern shore snow crab fishery area 24, and to reduce fisheries conflict and mitigate impacts to fishers, the 25 km buffer must be respected. Harvesters will be disrupted from transmission lines. The onus should be on the proponent to prove it is absolutely necessary to incur the 25 km buffer. So far, we have not heard any justifications for the incursion of French Bank WEA into the 25 km buffer from shore.

Privacy of commercial fishing data is imperative. Where is the incentive for fishermen to disclose where they fish? If government really wanted harvesters to communicate this information, they would create a program that would incentivise it.

Calls for Bids offshore wind – current global atmosphere

August 2025 - India carried out a call for offshore wind but cancelled it due to lack of interest from developers.

August 2025. Germany - A call for bids on offshore energy resulted in 0 bids from developers. Coincidently the German government had recently removed subsidies for energy projects.

In Norway where almost 10% of their energy comes from wind, the government has created programs in 2025 to help Norwegians pay their soaring energy bills.

In France, renewable energy projects were installed but industrial development lagged (planned hydrogen production plants), they suddenly had an excess of energy. Energy prices dropped to lowest levels since 2018. This was good news for residential customers.

Benefits to Nova Scotians

In the past when Nova Scotia Power Inc. had excess electricity with low demand, they dumped/discharged it. As the grid did not have the capacity to send it anywhere and no battery storage capacity. It did not result in cheaper electricity rates for Nova Scotians. There is no incentive or requirement for NSP to lower rates for Nova Scotians. Now that the Nova Scotia electrical grid is upgraded with the Maritime Link and the NS-NB intertie, there is an opportunity to send that extra electricity instead of dumping it. This will result in NSP selling more electricity, gaining millions more profits in the future and Nova Scotians NOT seeing any tangible benefits. The NS-NB intertie is projected to bring $12.2 million dollars to Nova Scotia Power Inc. Since the intertie is being financed through the Canada Infrastructure Bank with a $217 million dollar low cost financing, **ratepayers deserve affordability.**

According to the Canada Infrastructure Bank who helped finance the intertie between NS and NB. “Interprovincial energy infrastructure improves trade of electricity, helps Canada’s grid be more resilient and strengthens energy security and affordability for Canadians.” https://cib-bic.ca/en/medias/articles/cib-commits-217-million-to-nova-scotia-to-new-brunswick-wasoqonatl-reliability-intertie/ How specifically will this bring Nova Scotians affordability? It seems Nova Scotia Power Inc will be selling more electricity which will result in millions more profits for them. How will Nova Scotians benefit?

Nova Scotia Power Inc has applied for a rate increase of 3.8% if approved would be effective immediately as well as a 4.1% rate increase effective January 2027. This corporation is poised to sell more electricity boosting profits but wants ratepayers to foot the bill for the required infrastructure. When it comes to upgrading infrastructure, that’s ratepayer’s responsibility but profits belong to the corporation?

The CNSOER is the regulator of this new industry operating in Nova Scotian waters and our utility is purchasing this energy, the CNSOER must have policies that protect Nova Scotians from rising electricity rates and policies that benefit Nova Scotians. In the UK the government has placed a maximum price they are willing to pay for offshore wind protecting citizens from sky rocketing electricity prices. Is there a plan to cap prices here in Nova Scotia?

Nova Scotians need to know information regarding the price of offshore wind and the difference between pricing of offshore wind fixed energy and floating wind energy. This information has not been advertised or made readily available to the public. The current price of electricity in Germany (2025) is 62 cents CAD per kwh. Nova Scotia Power rates are currently 18.5 cents CAD per kwh. Are Nova Scotians aware of this? Can we as a province afford to pay triple the current amount for electricity? This is our future if we implement offshore wind energy into our grid.

A conversation about offshore wind energy has to include where the electricity is going, who is the consumer, benefits to Nova Scotians, and what the taxpayer will be required to contribute to this industry.

Wind West & Marine Spatial Planning

Wind West project was estimated at $60 billion dollars. This plan would create 66 GW total energy capacity. Has anyone seen a map of how this is possible; to add 66 GW of offshore wind to the 4 identified WEAs? Has a Marxan analysis been performed to investigate the possibility of this being a reality? We have not seen a map or a desktop analysis of how this

plan would become a reality. We are smart enough to realize if such a map was released to the public and our industry, The fallout would be catastrophic.

The Wind West project announced by Premier Houston is concerning to the fishing industry. We are actively trying to find space for 5 GW of energy projects which we were told would require 1,700 km^2. The WEAs encompass 12,549 km^2.

If the plan is to add 66 GW of energy projects into the designated WEAs. There is no point in the fishing industry attempting to co-exist with renewable energy industry.

We believe in sustainable extraction of natural resources. Every industry has limits that allow them to sustainably harvest without impacting future resources. What will limit the offshore wind industry? Demand? Ocean Space? Ecosystem impacts? How many turbines is too many? How much voltage should the electrical cables transport safely?

We do not believe submerged land leases should be large enough in size to accommodate future expansion, which may never come to fruition. This could affect market value of our commercial fishing licenses without any future turbines being installed. This is not done in the aquaculture industry; in fact, the guidance is take up only the space you require for moorings and equipment and nothing more. Taking into consideration other marine users and minimizing your projects footprint has always been the advice of the regulators of Canada's oceans.

GCIFA requests placement of renewable energy leases be within the RA identified PDAs not the WEAs. The regional assessment committee pre-identified suitable areas based on 10 months of public consultations.

GCIFA requests the CNSOER shrink the WEAs removing areas not suitable for energy projects. This could mitigate concerns from fishers about their future prospects of commercial harvesting of seafood. The WEA locations and shear size could deter future entrants into our industry. Succession planning has become a concern for many fishermen.

The directive from the Ministers is parcels should be large enough to accommodate future growth of energy projects. How can the fishing industry make navigation corridors if parcels are so large? Doesn't make sense. This will be costly for all marine industries navigating across the Scotian shelf.

Is this done in other parts of the world for offshore wind leases? Would the buffer area be included in the submerged lease or excluded? If it is not suitable for offshore wind, then why include it in the submerged lease? We recommend removing any area not suitable for

renewable energy from final submerged land leases. This could allow other marine users space to work and travel through. Give this area back to the fishing and shipping industries. We were told French Bank WEA was not going to be developed fully for wind energy. Only a small portion of the WEA. When we know what areas are not suitable for turbines, we expect the boundaries and total area of French Bank WEA to reflect updated information.

A buffer for potentially unsuitable areas: We are assuming extra space is being requested in case high fishing areas are identified within a parcel that will be avoided. We also anticipate these buffers will not be included in the final submerged land leases after siting of each turbine is completed.

The CNSOER said they plan to proceed with a moderate density of 7 MW per sq km. This turbine density is very high but will take up less space in the ocean. The DFO Marxan analysis performed in 2024 used a planning density of 3 MW per Km^2. Also included was a scenario that used 5 MW/km^2 - this scenario C2 required 1,000 km^2 of ocean space. We are not sure why the capacity density is going to be set at 7 MW/km^2. Is this because the 15 MW turbine will be available by then for floating and fixed foundations or is the higher density suggested to accommodate more turbine installations in the future within a submerged land lease?

It is still unknown if there will be 3 GW or 5 GW of energy projects up for bid. We are still in the dark about where we will fish in the future, and where navigation corridors will be. **Marine spatial planning should be the responsibility of the Fisheries and Oceans Canada and marine users, not the CNSOER**.

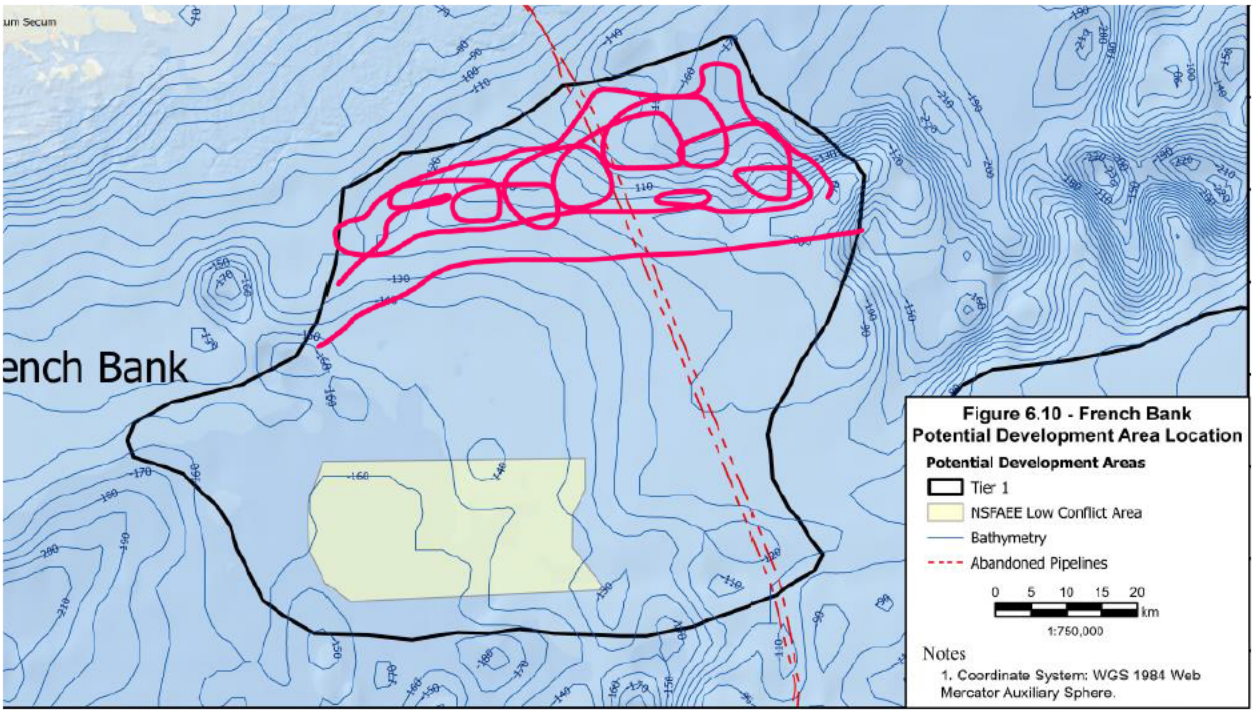
French Bank WEA

The CNSOER was asked on November 25, 2025, during a public webinar why French Bank WEA was not afforded the 25 km buffer that Sydney Bight was, their answer was “This is not a question for us, ask the government departments that created the WEAs.”

Two years ago, GCIFA sat down with other members of the NSFAEE and found a low conflict area within French Bank that is not highly used by the fishing industry. It has deep water and it is close in proximity to the abandoned pipeline. This low conflict area is identified in the RA final report. The northern part of the French Bank WEA is highly fished. This can be seen by looking at landings on the DFO atlas. GCIFA has put forth this information already through the Regional Assessment process. Yet the French Bank WEA was not reduced, it was expanded to include the low conflict area we identified and continued with designating our high commercial fisheries landings areas as potential wind energy areas as well. There is plenty of deep water within the French Bank WEA. There is no need to place turbines 12 n

miles from shore in the middle of our groundfish and snow crab fisheries. Will the WEAs ever be reduced in size or will the fishing industry have to live with constant fear of loosing more space to renewable energy projects, even though some areas within the WEAs have been found not suitable for renewables. We request the CNSOER relinquish those areas not suitable for offshore wind from the designated WEAs and give them back to the fishing industry and shipping industry. We cannot afford to lose the north end of French Bank WEA (area highlighted in pink). This is our no go zone for offshore wind. The cod moratorium is affecting our fishing activities, but positive news regarding other species of groundfish are seeing large population increases with an eastward shift in the population range. The ground fishery targeting predominantly halibut happening along the Scotian shelf has participants of fish harvesters from wide across the province. Renewable energy projects close to the 25 km buffer will ultimately affect this group of fishermen. Fishermen from Yarmouth to Cape Breton.

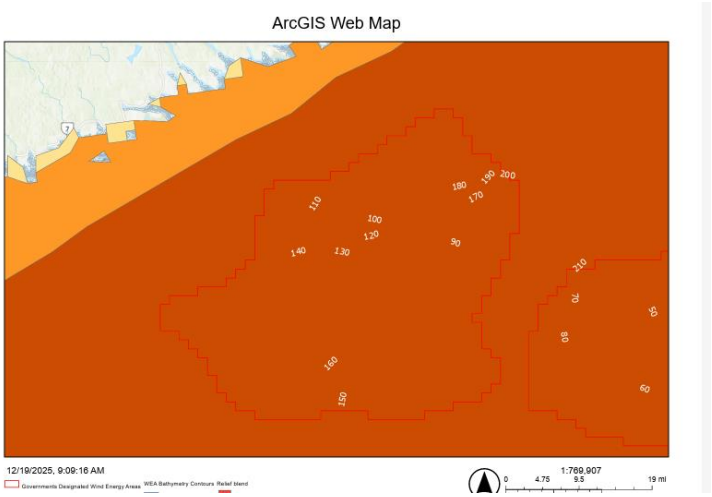
GCIFA through participating in the NSFAEE identified a low conflict area within Frech Bank WEA. French Bank WEA is over 3,000 km^2. According to Nova East Wind website their proposed project of 300 MW requires approximately 70 km^2.



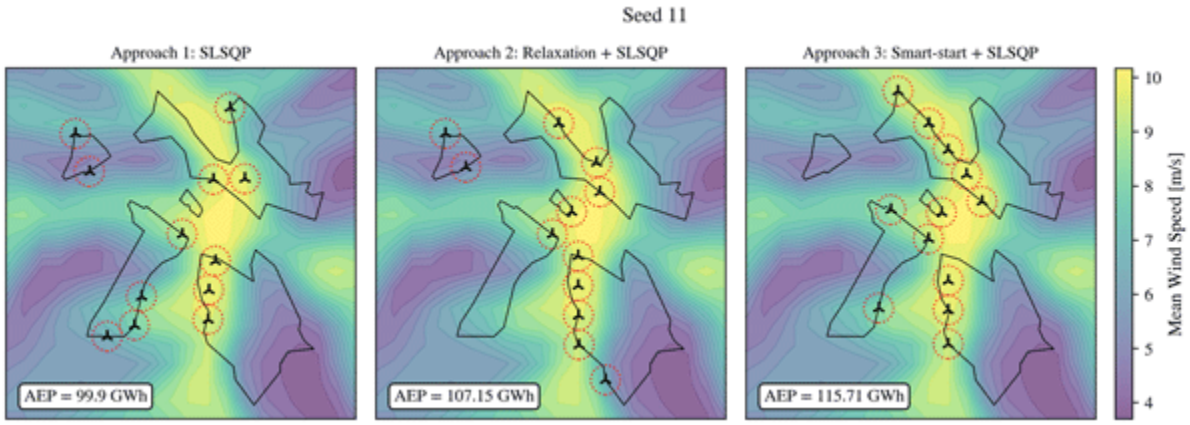
Groundfish license holders will lose access to lucrative fishing grounds within the French Bank WEA. Groundfish fishery near the 25 km buffer will affect fishermen from Yarmouth to Cape Breton. Most halibut landings are in the top half of the WEA.

The bird data layer from the spatial data viewer displayed on the CNSOER website has major gaps. The eastern islands AOI has recorded data on bird populations because that area has been extensively studied by Fisheries and Oceans for conservation. The eastern end of Guysborough County has no data.

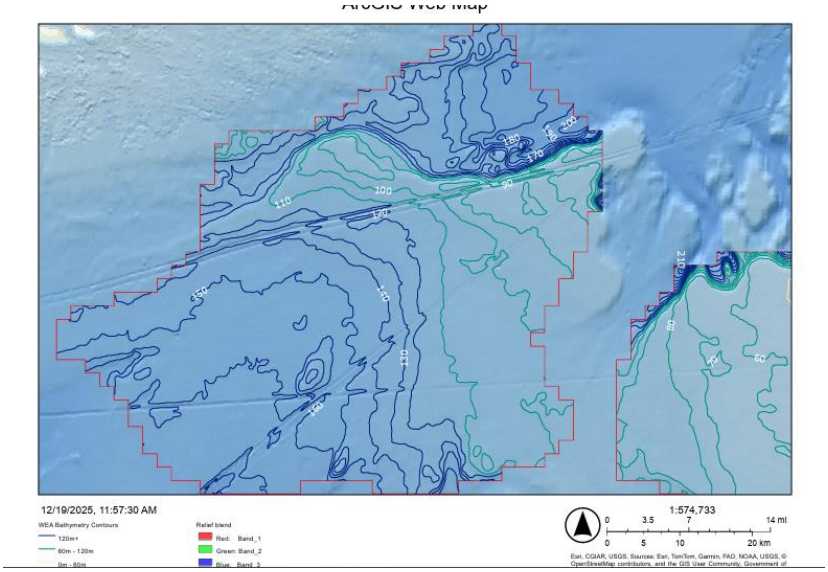
The wind data layer from the spatial data viewer displayed on the CNSOER website shows uniform wind speed across the eastern shore, no differences between wind speed within the WEAs. No average wind speed change in an ocean space 20 kms from shore vs 30 kms from shore. This wind speed data layer is based on a computer model using just a few data points and extrapolated to fill in the whole Scotian Shelf. Below is an image displaying the wind speed data layer on the CNSOER web WEA spatial data viewer. Showing wind speed within the French Bank WEA is uniform without. This data layer is useless.



Whereas if we had wind speed data like the image below. There would be justification to place wind turbines in specific locations to capture the maximum wind speeds.



Concerning French Bank WEA, wind speeds are uniform, depth constraints for floating turbines are amicable in the southwestern end of this WEA as well as the southeastern end. How can anyone justify placing floating turbines in the top northeastern corner of this WEA when that's shown to be a highly productive area for snow crab and groundfish.



There is plenty of deep water on the southwestern end of this WEA, no justification to take the top where all our commercial fishing is happening.

The fishing industry along with shipping and other marine traffic industries should have input into where the navigation corridors will be within and around submerged land leases.

The advice from UK based commercial fishing reps to the NS fishing industry was to engage early with gov officials and energy proponents regarding siting of energy projects conversations as soon as possible to avoid conflict in the future.

Will the shipping traffic move closer to shore? Will shipping traffic travel through wind turbines or through our inshore lobster fishing grounds?

Collisions

A conference in Croatia May 9, 2025, prepared a document titled "Identifying the risk of offshore wind farm installation to the safety of navigation – an overview of the current state." It details some recent incidents with ships and offshore wind farms. In 2022, a cargo ship collided with a turbine at the Horns Rev 2 wind farm off Denmark, causing damage but no casualties. In 2023, a Chinese bulk carrier struck a transformer platform at a German OWF, raising concerns about navigational safety. There have been multiple near-misses

reported, especially in high-traffic areas like the North Sea, where wind farms are located in the vicinity of TSS (traffic separation scheme). Some incidents involve fishing vessels unintentionally entering restricted zones and damaging subsea cables. (Offshore Wind, 2023)

A number of international published studies have been done assessing navigational risk assessments using AIS data and man-made structures revealing significant conflicts between engineering plans, existing routes, highlighting impacts on traffic patterns and collision risks.

Has Transport Canada completed modelling of collision risk in each WEA based on marine traffic and number/placement of turbines in each WEA?

The only operational 15 MW offshore wind turbine is located 110 km off Heligoland, Germany, it transmitted its first electricity on November 25, 2025. This technology is still very new. What noise/vibrations/EMF/sound pressure does this turbine emit? We have not seen any data on this technology. With Canada planning to place these turbines very close to our coastline, 20 km offshore, we are not taking the precautionary planning and taking into consideration the unknowns. The impacts of placing these turbines so close to our coastline could result in greater changes than ever anticipated.

Our feedback on the broader regulatory process for offshore wind projects in Nova Scotia

It's been a terrible 18 months of differing departments and organizations repeating tasks making little progress and the fishing industry answering the same questions over and over again. This process has placed the cart before the horse, asking energy proponents what they want instead of setting thresholds with regulations to protect the marine environment that should be in place before any proponent bids on any submerged land lease. The regulatory process has been relatively non-existent. There are no regulations surrounding underwater acoustic noise, maximum Electro-magnetic Field levels, spacing of turbines, capacity of transmission lines, capping of energy prices, no protections for taxpayers and ratepayers and no legislation that protects seafood harvesters.

Participant funding program – CNSOER

The final Regional Assessment report and GCIFA have both advocated for funding for fisheries for engagement, consultations and adaptive management. Establish participant funding was a RA recommendation T1-8. The available funding for this feedback was limited to eligible costs for travel, Honoria and translation services.



The participant funding available from the CNSOER was of little to no use for the fishing industry. We would not have honorary or translation expenses. Travel to meet with CNSOER is a miniscule amount compared to the resources spent to submit feedback and gather information about spatial representation of multiple fisheries in 90 days. A participant funding program should compensate GCIFA for its time and resources spent on meeting with CNSOER, writing this submission, equipment such as AIS devices used on fishing vessels, subscriptions to AIS marine data software, cost of sending AIS data for harvesters, and time spent speaking with our members regarding their concerns. GCIFA has devoted staff and resources to renewable energy consultations during the last 18 months spending easily over $50,000 on this file. A cost our small association cannot continue to absorb. GCIFA will not be able to continue our participation at the level we have been, in the future. It is not financially feasible for us.

Terms and conditions to be potentially included in the draft Submerged Land Licence

Duration of a Submerged Land Licence, which must be at least 35 years according to the CNSOER. The expected lifespan of an offshore wind turbine is 20 to 30 years. Why have the land license extend beyond 30 years?

Community Benefits

Community Benefits specifically mentioned in the minister's letter to CNSOER was "optimizing local benefits from projects"

The CNSOER has included an equity, diversity and inclusion criteria for the community benefits. This seems unnecessary. Community benefits is for the communities the project affects and is based on the location of the project. We recognize the need for inclusive policies and governance but if the communities affected by offshore wind are historic Acadian communities that is who will be impacted as well as the marine users, fishermen who may reside from Cape Breton to Yarmouth yet fish in waters offshore Guysborough County. Mi'kmaw communities have been offered the chance to invest in these economic development projects. Coastal communities have not been offered this opportunity. If black communities or indigenous communities are adjacent to the offshore wind projects, then they should get the community benefits. The fishermen have an added risk to their livelihood, the market value of commercial licenses are vulnerable, and the communities adjacent to the WEAs are communities supported by the fishing industry. The fishing industry includes Nova Scotians of varying racial backgrounds. This includes fishermen and seafood processing employees that have African American ethnicity, Indigenous First Nations heritage, French Acadian, and many others. We cannot condone compensating communities based on race. Reconciliation is the responsibility of our government not

private corporations, nor coastal communities being impacted by development.

During the submerged land licence issuance process, importance shall be given to the consideration of effects on fishing activities. GCIFA requests all SLL be outside the 25 km buffer from land to avoid high fishing grounds.

Considerations for fisheries' compensation

GCIFA has been working with the NSFAEE and DOE/NRCAN to piece together a policy framework for fisheries compensation packages.

We hardly feel that a fisheries liaison officer should be considered in the compensation category of this document. This is a basic communications officer that will aid the proponent and their contractors to conduct activities in the marine environment safely while minimizing impacts to other marine users. We agree a fisheries liaison officer is needed. We requested this during our submissions to the regional assessment last year. This officer should reside in the port/community in close proximity to the offshore wind project. Someone sitting in an office in Halifax with regular business hours is not going to be of much assistance to our fishermen. It would be an asset for this fisheries liaison officer to have commercial fishing experience and knowledge of the gear types we use in Nova Scotia waters.

Coexistence

We have no idea if coexistence is possible for specific fisheries depending on gear type/location/exclusion zones etc. Coexistence of fisheries with 3-5 GW of renewable energy, yes it may be possible to continue some commercial fisheries depending on location and restraints surrounding fishing gear within turbine placements. But Wind West projections by the Premier Houston are suggestions of up to 66 GW of energy projects within the identified WEAs; there is absolutely no way the fishing industry can continue to harvest at current levels losing the amount of marine space that 66 GW of energy projects will swallow up. If Nova East Wind floating offshore wind project requires about 70km^2 for a 300MW project…66,000 MW would require almost 16,940 km^2.

The fishing industry is being asked to pre-identify where we will be fishing in 5-10 years or 10-20 years, the answer is eastern Nova Scotia, Eastern Shore off Guysborough County and Cape Breton, for snow crab, for halibut, for groundfish, for lobster. Based on all the climate change models and shifts in species ranges from the last 10 years of data observations have shown a shift to the northeast. And yet that is the locations of ALL of the WEAs.

If there is another call for bids in 2026 or 2027, the fishing sector will then be squeezed out of more space. Shouldn't Fisheries and Oceans Canada be performing marine spatial planning for the full scale of renewable energy, not just the first phase (1st call for bids)?

Submarine cables regulations, burial depth regulation, voltage of cable coming to shore all unknowns with no guiding policies or best practice principles? The cable laying/trenching to shore, construction activities and monitoring post installation programs are still unknown. Species to investigate and monitor? crustaceans and groundfish. Video transects pre and post installation. Stress study from noise/vibrations. Toxicology /water quality testing. Before and after studies are fine for CUPE but if a reproductive lifecycle is interrupted by offshore wind, it may not be realized until 6-9 years later. It is best to perform studies on larval stages and set thresholds based on their tolerance.

The Ministers and CNSOER are prioritizing parcels closer to shore, this will increase conflict with other marine users. Yet "prioritizing co-existence with existing ocean users" is explicitly detailed in the Minister's letter to CNSOER. This means siting submerged land leases in areas outside of where the fishing industry harvests seafood. If the Ministers and CNSOER wants to minimize disruption of other marine users and "mitigate" impacts, they would take the time to conduct proper marine spatial planning and consultations to gauge consequences of placing projects in the middle of a major shipping transit route before jumping in with 2 feet.

Exclusion zones around turbines

Exclusion zone around maritime link cable is 1n mile on either side of cable is restricted from fishing. Will there be an exclusion zone around the transmission line to shore? American fishermen are able to fish right up to the turbine foundation. The reef effect will draw fish to these man-made structures. This is where fish will congregate.

Restrictions around construction timing of wind turbines and cable installation

The following are the timing of our fisheries conducted on the eastern shore off Guysborough County. From shore to French Bank WEA to Middle Bank WEA to Sable Island WEA.

- Snow crab fishery season March-July
  We request no construction activity associated with renewable energy projects occur during the snow crab fishery season.
- Inshore Lobster fishery LFA 31B April 19th - June 20th We request no construction activity during lobster season.
- Groundfish Summer July/August

- Mackerel bait fishery - September
- Herring fishery September/October – this species is very sensitive to sound and light.

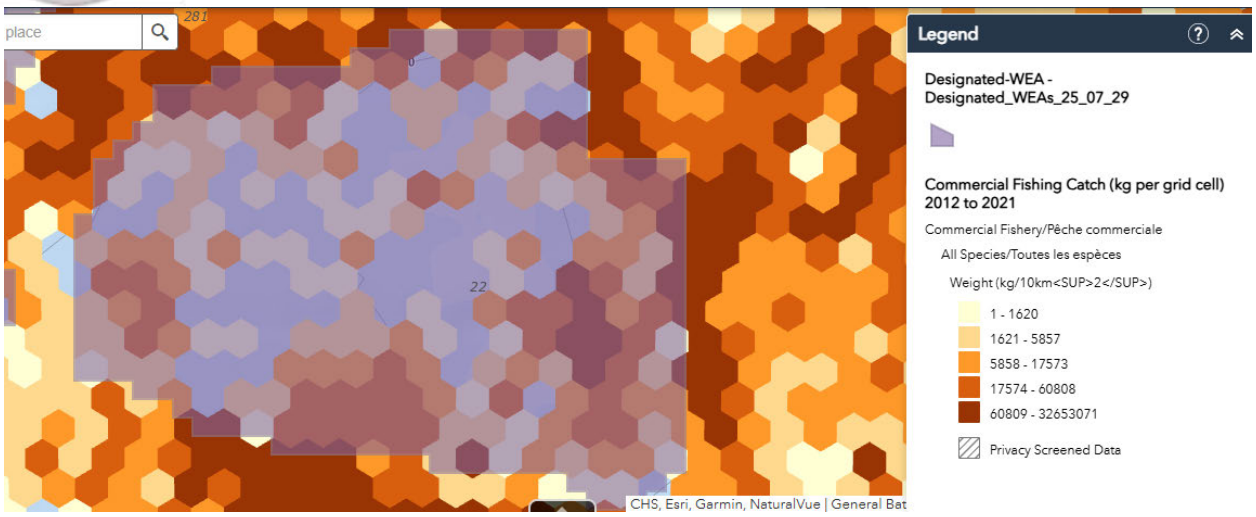
A co-existence plan would ideally be for leases and turbines to not entrench on high fishing locations. If compensation occurs only if displacement, what about compensation if the energy project negatively affects spawning, survival of commercially important species, or market value of licenses due to loss of space or loss of income.

A biodiversity plan must have measures to ensure the fish habitat continues to provide a space that is conducive to reproduction, fish health and limit invasive species. Setting thresholds on underwater sound, EMF and vibrations to protect fish at their most vulnerable stage, the larval stage would set a good foundation for marine life to continue to thrive in renewable energy spaces.

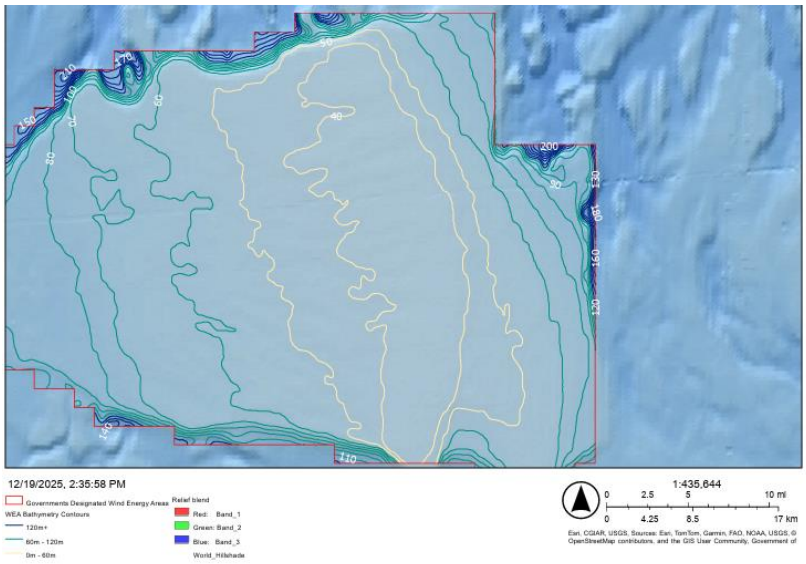
Middle Bank WEA

We have heard from energy developers that they are looking for water depth of 60 m or less within this WEA for placement of fixed turbine foundations. We do not understand why this PDA identified in the RA final report was expanded to the current WEA to include deep water areas along the boundary of Middle Bank. This expansion has caused fear, anxiety and concern of hundreds of fishermen, possible unnecessarily. These deep-water channels and holes are highly fished by the shrimp and snow crab fisheries. The DFO atlas displays high commercial fisheries landings within the outer regions of this WEA. We highlighted these high fishing areas during the regional assessment process, noting that we requested a buffer between our high fishing areas along the edges of Middle Bank and any renewable energy submerged land leases. This information was ignored by provincial and federal governments when they expanded Middle Bank PDA in the final report into the designated WEA in July 2025. We are now saying it again for the 3rd or 4th time. Failure to implement fisheries feedback will result in a lot of conflicts for regulators and developers in the future. This conflict can for the most part be avoided.

There are a number of commercial fisheries that are not displayed on the Fisheries and Oceans Atlas due to privacy restrictions.



The high fishing activity is clearly displayed on the DFO atlas. See image above. There is a number of commercial fisheries landings that are not show on the atlas due to privacy regulations. See GCIFA previous submissions to the regional assessment for further details.

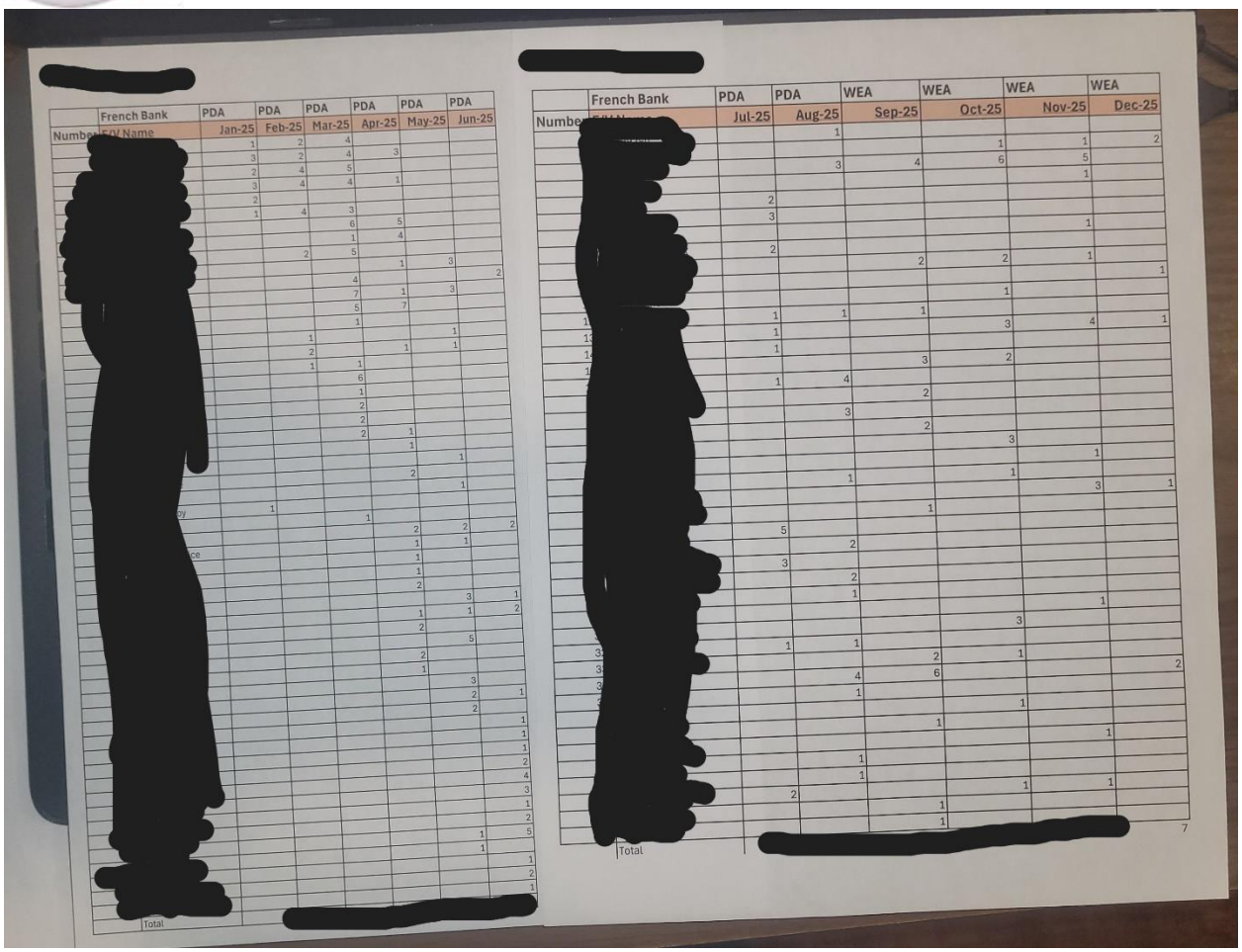


All fixed turbines require depth less than 60 m. There is definitely space to squeeze in some turbines in this shallow area highlighted by yellow lines on the above map. Through our submissions to the Regional Assessment, we directed renewable energy away from the edges and deeper channels, holes as they are highly fished. We requested a buffer between the high fishing intensity areas and renewable energy leases. Placing turbines in the shallower water of 60 m or less in this WEA will avoid

much of the high fishing areas but will absolutely displace some fishers, exclusion zones due to construction will affect fishers, transmission cable laying activities, pile driving activities could scare away or kill fish/snow crab. GCIFA requests DFO or CNSOER collect empirical data on acoustic noise from construction activities. GCIFA requests video drop cameras be employed before, during and after construction activities at specified distances away from construction. GCIFA requests no pile driving activities occur before or during the snow crab fishery season.

After observing marine traffic through AIS tracking of the French Bank and Middle Bank WEAs, half of all fishing vessels that enter the French Bank WEA are travelling through it to get to areas within or around the Middle Bank WEA. This highlights the added impacts of an energy project occurring in French bank WEA that could impact fishermen who fish on Middle Bank WEA. Also, if energy projects are occurring in both WEAs at the same time. You may be impacting the same fishermen twice via separate projects but impacted, nonetheless.

The image below is a 12 month tally of fishing vessels that entered the French Bank WEA for the year 2025. We have the same data for Middle Bank as well. We have compiled lists of vessel names and owners. Our AIS data also includes all shipping traffic, names, dates etc.

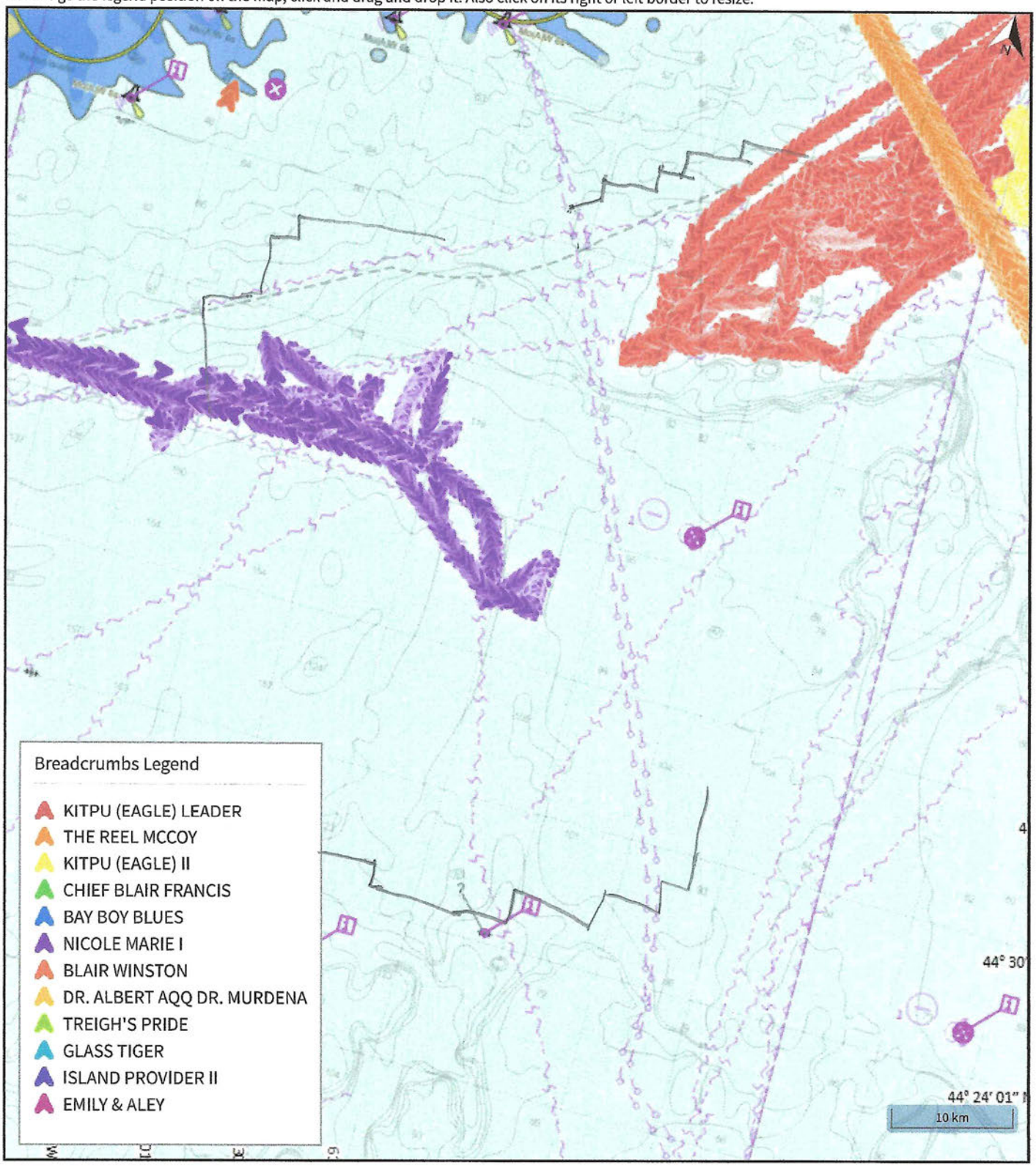


French Bank	PDA	PDA	PDA	PDA	PDA	PDA
Number [redacted] Name	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25
[redacted]	1	2	4			
	3	2	4	3		
	2	4	5			
	3	4	4	1		
	2					
	1	4	3			
			6	5		
			1	4		
		2	5			
				1	3	
			4			2
			7	1	3	
			5	7		
			1			
					1	
		1			1	
		2		1		
		1	1			
			6			
			1			
			2			
			2			
			2	1		
				1		
					1	
				2		
					1	
	1					
				1		
				2	2	2
				1	1	
				1		
				1		
				2		
					3	1
				1	1	2
				2		
					5	
				2		
				1		
					3	
					2	1
					2	
						1
						1
						1
						2
						4
						3
						1
						2
					1	5
					1	
						1
						2
						1
Total						

French Bank	PDA	PDA	WEA	WEA	WEA	WEA
Numbe [redacted]	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25
[redacted]		1		1	1	2
		3	4	6	5	
					1	
	2					
	3					
					1	
	2			2	1	
						1
				1		
	1	1	1			
	1			3	4	1
	1					
			3	2		
	1	4				
			2			
		3				
			2			
				3		
					1	
		1		1		
					3	1
				1		
	5					
		2				
	3					
		2				
		1				
					1	
				3		
	1	1				
			2	1		
		4	6			2
		1				
				1		
				1		
					1	
		1				
		1				
				1	1	
	2					
			1			
			1			7
Total						

June 1-30, 2024

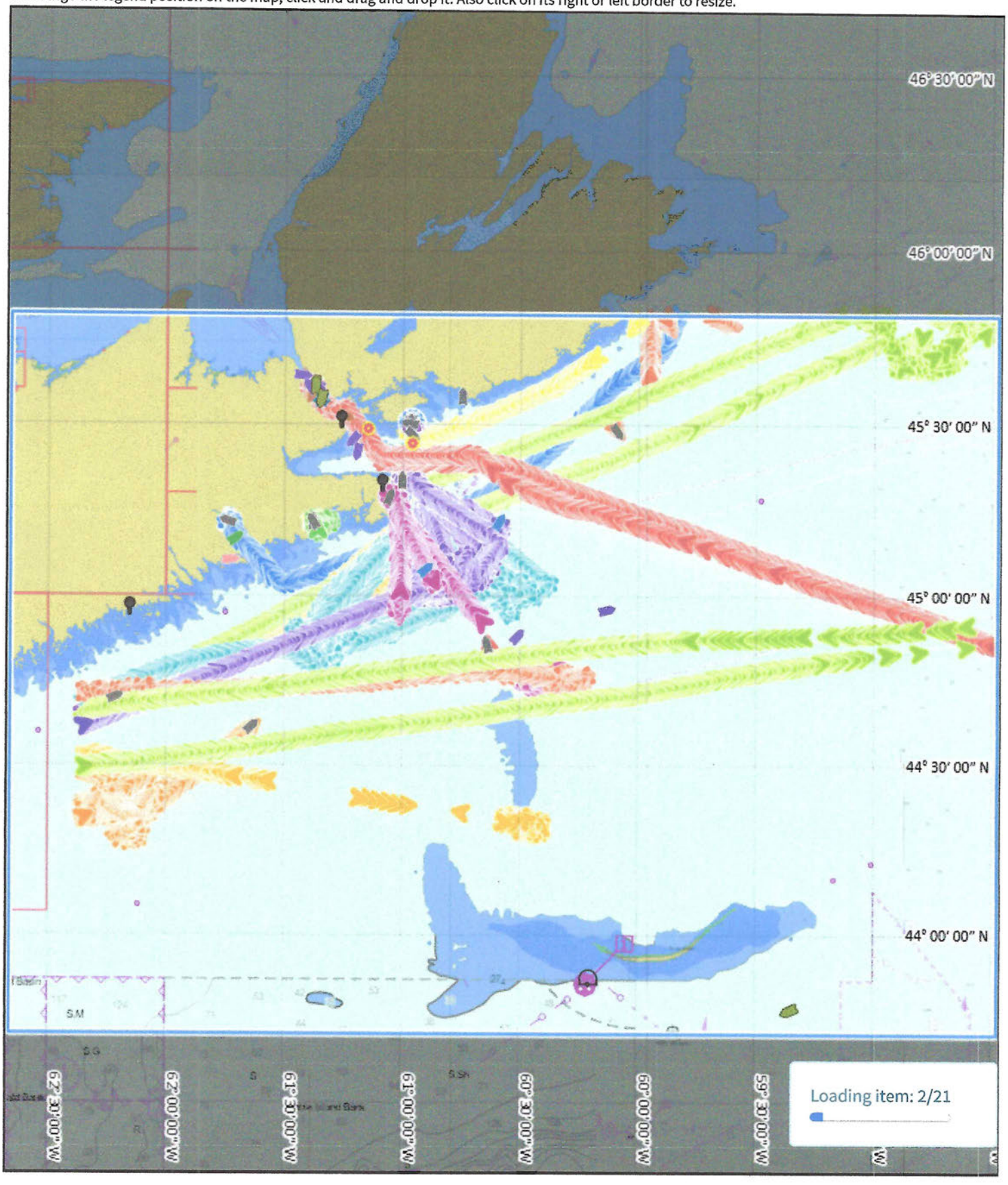
To change the legend position on the map, click and drag and drop it. Also click on its right or left border to resize.



Date : June 1, 2024

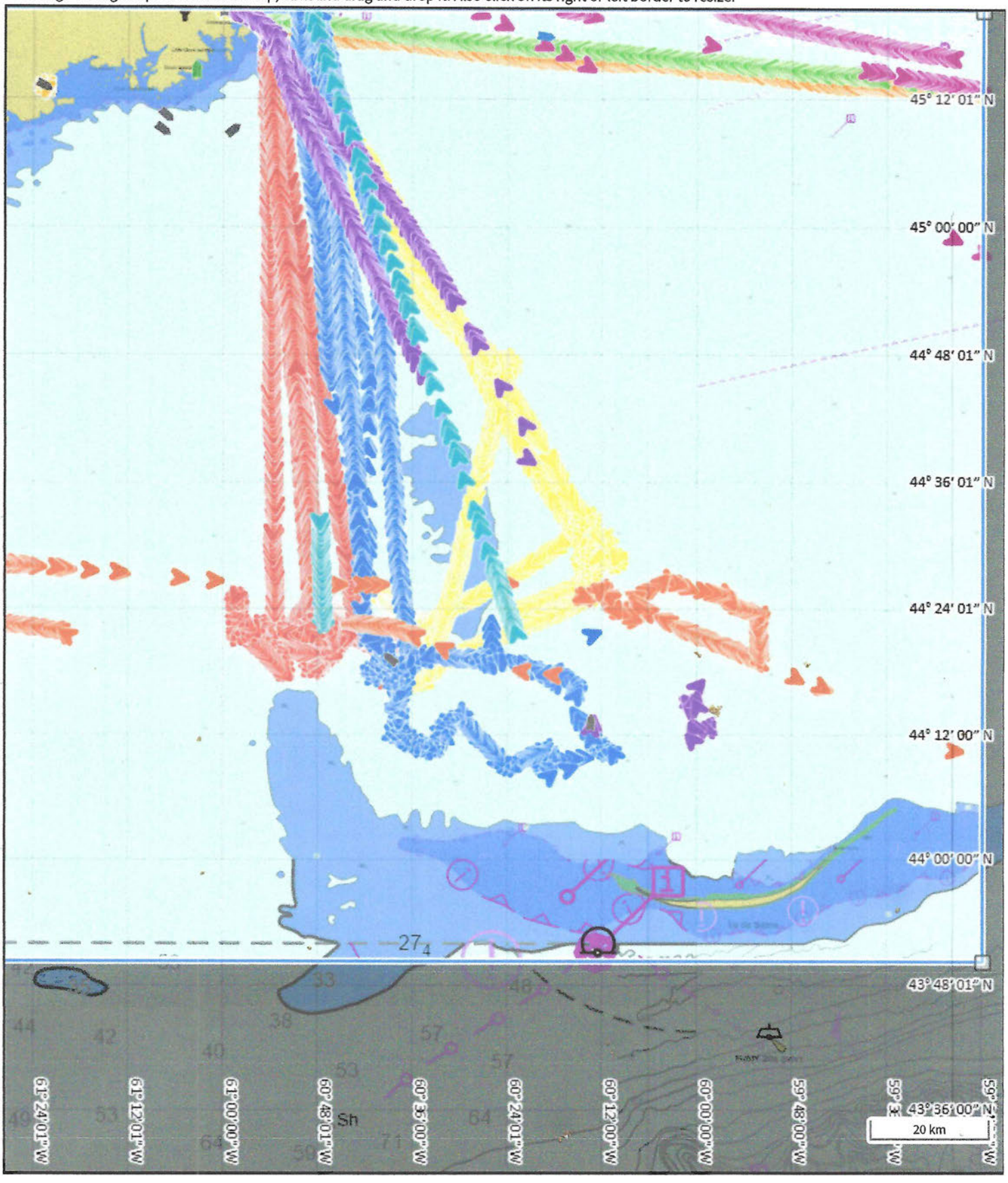
March 15 - 31, 2025

To change the legend position on the map, click and drag and drop it. Also click on its right or left border to resize.



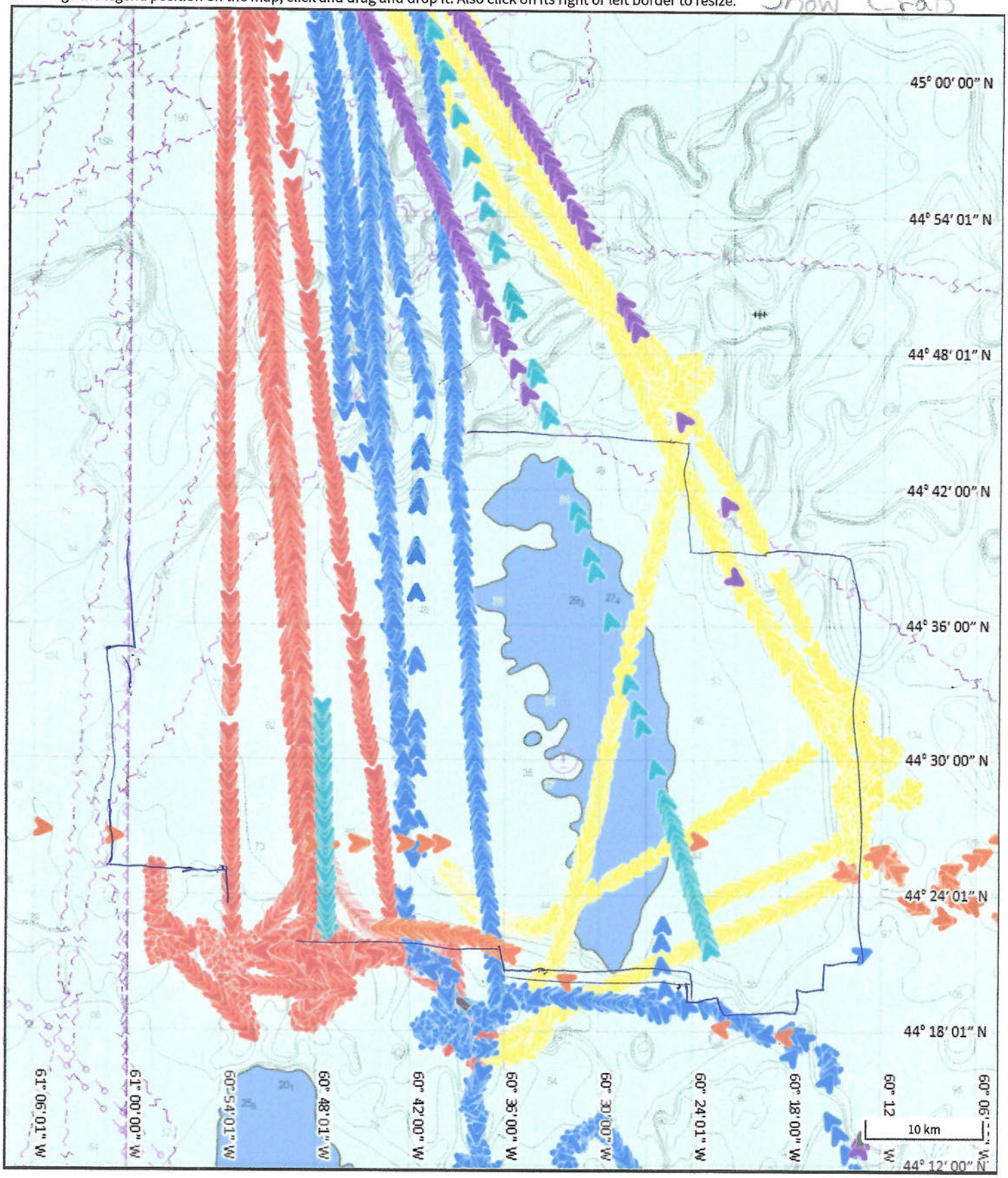
April 25 - May 7, 2025

To change the legend position on the map, click and drag and drop it. Also click on its right or left border to resize.



April 25 - May 7, 2025

To change the legend position on the map, click and drag and drop it. Also click on its right or left border to resize. Snow Crab



Identifying Parcels within Government-Designated Wind Energy Areas

The government-designated Wind Energy Areas of Sydney Bight, Middle Bank, and French Bank are long-established commercial fishing grounds that underpin the economic, social, and cultural sustainability of coastal and rural communities in Nova Scotia. Parcel identification must prioritize avoidance of disruption or displacement of existing fishing activity and associated shore-based economies.

Before any parcels are finalized, bids received, or licences approved, both levels of government—through the regulator, CNSOER—must undertake targeted, good-faith consultation with all directly affected parties. This includes Indigenous rights holders, underrepresented groups, offshore industries, commercial fisheries, and adjacent rural and coastal communities. Potential environmental, social, and economic impacts must be identified, assessed, and scrutinized in advance of any Call for Bids. Proceeding without this level of engagement risks disproportionate harm to smaller communities whose livelihoods depend on continued access to these marine areas.

Potential Evaluation Criteria for Offshore Wind Bids

Bid evaluation criteria must require demonstrable, pre-bid engagement between proponents and existing ocean users, particularly commercial fishing interests. Proponents should be required to provide evidence of meaningful dialogue that demonstrates a clear understanding of where, when, and how existing activities occur and how coexistence could realistically be achieved.

Evaluation criteria should assign substantial weight to engagement quality, coexistence planning, mitigation measures, and community benefit commitments, alongside technical and financial capacity. Absent a transparent and reviewable engagement process, bidders cannot credibly demonstrate impact awareness or feasibility of coexistence.

Coexistence

Although frequently referenced, “coexistence” remains undefined. A clear, operational definition must be established as an upfront requirement and determined collaboratively by offshore wind proponents and affected fishing and community interests.

Early, meaningful participation by impacted parties is essential to avoid known, unknown, and unquantifiable biases against established fisheries. Practical, enforceable coexistence arrangements must be negotiated directly between proponents and affected interests prior to bid approval. Federal, provincial, and CNSOER staff should not simultaneously act as policy-makers, arbitrators, and regulators.

Considerations for Fisheries’ Compensation

Where coexistence cannot be achieved, a comprehensive compensation framework must be negotiated and agreed upon before any bids are accepted. At present, the absence of

finalized federal or provincial compensation frameworks creates unacceptable uncertainty for affected fisheries.

Compensation mechanisms must be negotiated directly between proponents and impacted fishing interests and informed by independent socio-economic and environmental assessments. No bid should proceed without an agreed framework addressing displacement, disruption, and loss of access. A community benefits package should form an integral component of this framework.

Please also see attached Draft Compensation Framework from the Canadian Association for Seafood Security and Energy Development (CASSED).
We believe that this Framework, and the one completed by NSFAEE provide a good starting point.

Proposed Fees for Bid Submissions and Successful Bidders

Fees associated with bidding and receiving submerged land licences should be comparable to those required for offshore oil and gas licences. These fees should also support the full costs of meaningful participation by affected industries, including travel, accommodation, and access to independent legal, technical, and scientific advice.

Financial security sufficient to cover decommissioning, environmental remediation, and potential fishing industry disruption must be secured prior to development.

Principles Listed in the Accord Acts

To give substantive meaning to the term “importance” as used in the Accord Acts, developers must demonstrate measurable efforts to increase participation of underrepresented groups and to avoid, mitigate, or offset negative impacts on fishing activities. Where feasible, this obligation may extend to enhancing fishing-related infrastructure, such as public harbour facilities.

Site selection and project design must prioritize minimizing impacts on fish habitat, commercially harvested species, and navigational safety. Construction must be coordinated with fishing seasons; installation methods must mitigate underwater noise and electromagnetic effects; and displacement of fishing activity must be avoided wherever possible.

Community Benefits

Community benefits programs should only be developed following completion of a comprehensive federal socio-economic assessment of offshore wind impacts on coastal communities. Rural and coastal communities must be explicitly recognized as underrepresented and underserved, facing disproportionately high impacts due to offshore wind development.

Community benefits should include commitments to a majority Canadian workforce, prioritization of underrepresented groups, and sourcing of materials, manufacturing, and services within Canada wherever possible.

Terms and Conditions of the Submerged Land Licence

Stakeholders must be provided with complete draft terms and conditions of Submerged Land Licences to enable meaningful feedback. Licences must include binding provisions related to coexistence, compensation, independent environmental and socio-economic assessments, and decommissioning plans supported by secured funding.

Development milestones must be rigorous, transparent, and enforceable. Failure to meet milestones should result in licence revocation and forfeiture of assets to the Government of Canada. Licences should be non-transferable and terminated if not actively used for offshore wind development.

Participant Funding Program

The current Participant Funding Program does not adequately support informed participation. Funding should extend beyond basic reimbursement to support independent analysis, expert review, and capacity-building, enabling affected communities and industries to engage on an informed and equitable basis.

Additional Feedback and Comments

The current regulatory process prioritizes capacity targets and timelines over meaningful early engagement with existing ocean users. Limited information and compressed timelines undermine informed participation and increase the risk of conflict and social disruption in Nova Scotia's coastal communities.

Prior to proceeding further, governments and CNSOER must provide detailed project information, complete independent assessments, and allow adequate time for review. Respect for existing industries that have long supported local and provincial economies must be central to any offshore wind development framework to ensure long-term sustainability and social licence.

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Nova Scotia Offshore Wind Development
Integrated Regional Compensation Framework

Introduction

This master framework provides a structured, transparent, and comprehensive approach for evaluating and compensating economic and community impacts arising from offshore wind development in Nova Scotia. This approach is intended to apply only after all efforts of "co-existence" have been exhausted through a combination of indirect and direct negotiations among all affected parties. It integrates sector-specific compensation pathways into five distinct categories:

1. License-Based Harvesting
2. Indigenous Commercial and Rights-Based Harvesting
3. Marine Users (Non-Fishing License Holders)
4. Shore-Based Dependent Businesses (e.g., processing plants)
5. Community Losses

These categories ensure equitable, sector-appropriate mechanisms for compensating for direct, indirect, and cumulative negative impacts to Nova Scotia's coastal economy.

1. Guiding Principles

- **Compensation to be a Condition of License for OSW Developers**.
- **Fairness & Transparency**: Open criteria, clear formulas, public governance.
- **Evidence-Based Decisions**: Claims grounded in verifiable data.
- **Independent Administration**: Neutral third-party claims processing.
- **Respect for Indigenous Rights & Treaties**.
- **Long-Term Accountability**: Compensation persists as long as impacts persist.

2. Compensation Categories

2.1 License-Based Harvesting (Non-Indigenous Commercial Fisheries)

This category applies to commercial fish harvesters operating under non-Indigenous licences issued by NSDFA and DFO-Canada.

Eligible Impacts:
- Loss of access to fishing grounds.
- Increased steaming time or fuel usage.
- Gear loss or damage.
- Impacts to moorings or water conditions.
- Reduced catch or stock displacement.
- Temporary or long-term business interruption.

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- License value loss

Compensation Mechanisms:
- Lost revenue based on verified historical landings.
- Reimbursement of increased operational expenses.
- Gear replacement or repair.
- Long-term displacement compensation where impacts persist.
- Reimbursement for license value loss

2.2 Indigenous Commercial and Rights-Based Harvesting

This category recognizes constitutionally protected Indigenous harvesting rights, covering both rights-based and communal commercial fisheries.

Eligible Impacts:
- Interruption of treaty-protected marine access.
- Effects on culturally significant species.
- Disruption of Indigenous-run commercial fisheries.
- Loss of traditional harvesting areas.
- Cultural and non-market losses not captured by financial metrics.

Compensation Mechanisms:
- Commercial compensation for economic impacts.
- Indigenous-defined Community Benefit Agreements.
- Indigenous-led monitoring, habitat protection, and stewardship programs.
- Cultural compensation approaches defined by affected Nations.

2.3 Marine Users (Non-Fishing License Holders)

This category includes all marine-dependent users who do not hold commercial fishing licences.

Examples of Marine Users:
- Marine tourism operators.
- Shipping, tug, and barge services.
- Marine construction and offshore service companies.
- Recreational marine organizations.
- Port-dependent coastal businesses.

Eligible Impacts:
- Navigation disruption.
- Reduced customer access (tourism).
- Rerouting, delays, or operational inefficiencies.

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- Infrastructure damage.

Compensation Mechanisms
- Lost revenue verified through production or customer data.
- Reimbursement of increased costs.
- Physical infrastructure damage claims.
- Transitional business interruption support.

2.4 Shore-Based Dependent Businesses (e.g., Fish Processing Plants, License Owners)

This category includes land-based businesses whose operations rely on consistent supply from fishing or marine harvesting sectors impacted by offshore wind development. These businesses often experience secondary economic disruption when access to resources is restricted offshore.

Examples Include:
- Fish processing plants (groundfish, pelagic, shellfish, sea cucumber, etc.)
- Live holding facilities
- Bait suppliers and bait-freezer operators
- Ice plants and cold storage facilities
- Transport and logistics providers tied to harvest volume
- Marine-dependent manufacturing or value-added processors

Eligible Impacts:
- Reduced raw material supply volume due to decreased landings.
- Production slowdowns or stoppages.
- Increased cost of sourcing product from more distant suppliers.
- Contract losses due to inability to meet buyer demand.
- Workforce impacts (layoffs, reduced shifts) connected to wind-related disruption.
- License value loss

Compensation Mechanisms:
- Lost revenue based on production reduction.
- Reimbursement for increased procurement costs (transportation, sourcing).
- Compensation for unfulfilled supply contracts.
- Support for labour retention during downturns.
- Capital investment support if facility adjustments are required.
- Reimbursement for license value loss

2.5 Community Losses

This category captures social, municipal, cultural, and public-interest impacts affecting entire communities.

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Examples of Community-Level Impacts:
- Reduced access to public coastline or harbours.
- Traffic and transportation disruption.
- Housing pressure from project workforce.
- Visual impacts affecting tourism.
- Strain on emergency or municipal services.

Community Compensation Tools:
- Community Infrastructure Funds.
- Tourism mitigation and marketing initiatives.
- Municipal service support programs.
- Coastal access improvements.
- Workforce housing investment.

3. Required Documentation Across All Categories

- Baseline financial data (2–5 years).
- Proof of operational footprint.
- Production, sales, or customer records.
- Evidence of impact such as logs, photos, incident reports.
- Verification of increased costs.

Alternative verification available for informal or small operators.

4. Compensation Fund Structure

A Regional Business Impact Compensation Fund (RBICF) will be established and funded by offshore wind developers. Governance will include provincial representatives, municipalities, Indigenous leadership, business sector delegates, and non-voting offshore wind observers. An independent third-party administrator will manage all claims.

5. Claims Process

1. Pre-Impact Registration (Failure to do so does not automatically disqualify a claimant)
2. Impact Occurrence
3. Claim Submission
4. Verification & Assessment
5. Compensation Decision
6. Appeals Process

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6. Long-Term Monitoring & Adaptation

- Annual formula review.
- Five-year cumulative impact assessment.
- Adjusted developer contributions based on evolving impacts.
- Public reporting for transparency.

7. Ethical & Social Licence Requirements

Compensation must support—not replace—proper consultation, coexistence planning, and Indigenous rights. Engagement must be early, ongoing, inclusive,.

8. Governance Structure

Independent Compensation Board including:

• Fisher representatives

• Indigenous leadership

• Marine economists

• Government observers

• Developers (non-voting)

Responsibilities will include validating formulas, reviewing claims, ensuring timely payment, and publishing reports.

10. Additional Safety Measures

• Mandatory decommissioning bonds

• Insurance-backed environmental guarantees

• Seasonal construction windows

• Marine Traffic Management Plan co-designed with industry

11. Transferability and Survival of Compensation Obligations

In the event that the Wind Farm Operator ("Assignor") elects to transfer, delegate, assign, sublet or convey to any other person, firm or corporation ("Assignee") all or any of the property, powers, rights and interests obtained by or conferred upon it by this Lease/License the Assignor and the Assignee shall be ***jointly and severally***

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liable *for all of the Assignor's original obligations with respect to compensation*. The Assignor shall have an enduring responsibility to indemnify third parties for any failure on the part of the Assignee to perform the compensation obligations required by the Lease/License and applicable legislation.*

Notwithstanding anything herein contained, any compensation liabilities or obligations of the Wind Farm Operator which arise under this Lease/License and applicable legislation which accrue prior to any partial or complete expiry, surrender, reversion or termination of the Lease/License* ***shall survive*** *such expiry, surrender, reversion or termination.*

*Note: the term "compensation" remains to be defined.

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APPENDIX A: COMPENSATION FORMULAS

A. Compensation Components

i. Direct Economic Loss, Immediate

Direct Loss = $\Sigma_{s,t}$ (Forecasted Gross Revenue$_{f,s}$ – Actual Gross Revenue$_{f,s}$) × (t / 365) × N

where the direct loss is computed over a given period in days t (a month or a season, for example) for a given entity f; the summation runs over all species routinely/historically fished or processed by a specific entity (based on prior documentation) in a comparable period to t, with each species denoted s;

Forecasted Gross Revenue$_{f,s}$ = Annual Forecasted Gross Revenue$_s$ × λ_f

forecasted gross revenue for a specific entity f with respect to a given species s is the annual per-species forecasted gross revenue for the area, multiplied by a fisher-specific scaling factor λ_f over a recent period, e.g. the last 3-5 years;

λ_f = Entity's Average Historical Revenue / Area's Average Total Historical Revenue

annual forecasted gross revenue for a species s is based on a sufficient data set of catches and values in the area using a damped-trend exponential smoothing model; and N is a normalization/scaling constant that can be used to address issues with respect to prorating compensation (for example, a graduated phase-out over time or a proration based on inadequate historical data).

ii. Extraordinary Costs Resulting from Displacement or Disruption

This compensation category addresses unavoidable and extraordinary fixed and indirect operating costs incurred by affected businesses as a result of offshore wind development related to disruption, displacement, or inefficiencies related to the avoidance and exclusion from wind farm areas. These costs persist even when production or revenue is unaffected or reduced and are not fully captured through Direct Economic Loss calculations alone.

Extraordinary Compensation$_{f,t}$ = Σ_c (Expected Cost$_{t,c}$ – Actual Cost$_{t,c}$) × λ_c

where the extraordinary compensation for a given period t and given entity f is computed by a summation of scaled differences running over all relevant costs c; an expected cost for a period t is based on a forecast that makes sense for the given cost and scaled for the time period t, e.g. a recent-period weighted average, the most recent price, etc; and λ_c is a scaling factor specific to the given cost.

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Covers additional fuel consumption, insurance, licensing, maintenance & minimum upkeep, lease/berth fees, labour retention, and more. For "Marine-Users, non fishing", in addition to the above, this also covers things like labour costs for additional time at sea, etc.

iii. **Future Earnings Loss (NPV Model)**

Future Loss = Σ [(Annual Lost Revenue + Annual Lost Profit Growth) ÷ (1 + Discount Rate)^t]

Use 8 years and 2% discount rate.

iv. **Intergenerational & Community Impact Fund**

Recommend 2–3% of total project CAPEX dedicated to community and fisheries support.

v. **Gear Damage & Navigation Hazard Compensation**

Rapid-pay (30 days) system for gear loss, vessel damage or costs incurred navigating around potential hazards caused by offshore wind development

Gear Damage/Loss Compensation = [(the lesser of replacement cost or prompt repair to a comparable pre-damage state) – (insurance payment)] × (scaling factors)

where the scaling factors could be used to include depreciation, to adjust compensation for partial loss of useful life, to reduce compensation for damage to short-lived assets, and/or to adjust compensation for partial payments in cases of mixed culpability.

vi. **Cultural & Treaty Rights Compensation**

Dedicated funding of $500,000–$2M per project for Indigenous access impacts.

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vii. **Displacement Premium**

Disruption ×1.1
Partial Displacement ×1.5
Full Displacement ×2.0–3.0

* Full Compensation Formula*

Total Compensation =

Direct Economic Loss

+ *Extraordinary Costs*

+ *Future Earnings Loss (20-year NPV)*

+ *Community Impact Fund Contribution*

+ *Gear Damage & Navigation Costs*

+ *Indigenous Treaty Impact Compensation*

+ *Displacement Premium (TBD)*

B. Tangible Asset Compensation

1. Full Replacement Cost (FRC) Formula

Use when the asset is fully destroyed or cannot be repaired.

Formula:

Compensation = Replacement Cost (New) + Associated Costs – Insurance Payout

Where:

- **Replacement Cost (New)** = cost to purchase equivalent new asset
- **Associated Costs** may include:
    - Installation
    - Programming/calibration
    - Shipping
    - Required certification/inspection
    - Lost operational time during replacement

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Example:

Asset: industrial fish net

- Replacement cost: $85,000
- Associated costs: $3,500
- Insurance payout: $20,000

Compensation = 85,000 + 3,500 – 20,000 = $68,500

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2. Repair Cost (RC) Formula

Use when asset can be repaired to original functional level.

Formula:

Compensation = Repair Cost + Associated Costs – Insurance Payout

Where:

- **Associated Costs** = transport, labour, downtime, calibration, etc.

Example:

- Repair cost: $12,000
- Associated costs: $1,800
- Insurance payout: $5,000

Compensation = 12,000 + 1,800 – 5,000 = $8,800

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3. Loss of Useful Life (LUL) Formula

Use when the asset is still functional but its lifespan has been shortened because of the impact (important for marine gear, processing equipment, pumps, motors).

Formula:

Compensation = Replacement Cost × (Remaining Useful Life Lost ÷ Total Useful Life)

Where:

- **Remaining Useful Life Lost** = years of lifespan reduced due to damage

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- This does **not** include cosmetic damage—only functional impact.

Example:

A conveyor motor is damaged during turbine cable-lay operations. It still works but lifespan drops by **3 years**.

- Replacement cost: $18,000
- Total useful life: 12 years
- Remaining useful life lost: 3 years

Compensation = 18,000 × (3 ÷ 12) = $4,500

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4. Business Interruption Add-On for Tangible Asset Loss

If the loss of the asset prevents production or operations, add a downtime compensation formula.

Formula:

Downtime Compensation = (Average Daily Production/Procurement × Days of Interruption) – Avoided Costs + Standby Costs

Where avoided costs = labour not used, utilities not used, etc.

Where standby costs = paying labour to maintain ones workforce, etc

This can be added to any tangible asset loss formula.

C. License Capital Value Loss Formulas

1. Market Value Loss Formula

Use this where licences/quotas have a **known market price** (buy/sell, broker data, recent transactions).

Variables

- $\mathbf{V_0}$ = Baseline market value of the licence *before* January 2025
- $\mathbf{V_1}$ = Market value of the licence *after* offshore wind impact (or best estimate)

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- **A** = Attribution factor (0–1) = proportion of the loss clearly attributable to offshore wind
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Compensation = $(V_0 - V_1) \times A$

If the licence is considered **effectively worthless** (full loss):

- $V_1 \approx 0 \rightarrow$ **Compensation ≈ $V_0 \times A$**

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2. Earnings / Net Present Value (NPV) Loss Formula

Use this where you want to base compensation on **future earning capacity** of the licence, not just current trading price.

Variables

- **π_0** = Expected average *annual net profit* from the licence without wind farm (baseline)
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- **$\Delta\pi = \pi_0 - \pi_1$** = annual loss of profit attributable to offshore wind
- **T** = Time horizon in years (e.g. 20 years, or remaining expected useful life)
- **r** = Discount rate (e.g. 3–6% in real terms)

Formula

Compensation = $\Sigma_{t=1}^{T} (\Delta\pi / (1 + r)^t)$

In words: *the present value of all future profit lost because of the wind farm*.

If you want a simpler approximation when Δπ is expected to be fairly stable:

Compensation ≈ $\Delta\pi \times [1-(1+r)^{-T} / r]$

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3. Partial Loss Due to Loss of Grounds (Percentage Method)

Sometimes only part of the licence's value is lost (e.g. 30% of the grounds made inaccessible or uneconomic).

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Define:

- **L** = Proportion of commercial value lost due to displacement (0–1).
    - Example: if ~40% of the historically fished grounds are effectively lost, L = 0.4

Then, for a **market-based shortcut**:

Compensation = $V_0 \times L \times A$

Where A again is the attribution factor (if you want it separate from L you can, or just roll it into L).

You can also apply L to earnings:

$\Delta\pi \approx \pi_0 \times L$
then plug Δπ into the NPV formula above.

---

4. Recommended Policy Formula

To be fair and robust, you can specify that compensation for **licence value loss** is the **greater of**:

1. **Market Value Loss**

$C_1 = (V_0 - V_1) \times A$

2. **NPV of Lost Earnings**

$C_2 = \Sigma_{t=1}^{T} (\Delta\pi / (1 + r)^t)$

Then define:

Final Compensation for Licence Value Loss = max(C_1, C_2)

You can also write this in policy language like:

"Compensation for permanent or long-term loss of commercial licence value shall be calculated as the greater of (a) the verified loss in market value of the licence attributable to offshore wind development, and (b) the net present value of projected future profit reductions attributable to offshore wind development, using an agreed discount rate and time horizon."

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Identifying Parcels within Government-Designated Wind Energy Areas

The government-designated Wind Energy Areas of Sydney Bight, Middle Bank, and French Bank are well-established commercial fishing grounds that play a critical role in the economic, social, and cultural sustainability of coastal and rural communities in Nova Scotia. Identification of parcels within these areas must give priority to avoiding disruption or displacement of existing fishing activity and the shore-based economies that depend on it.

Before any parcels are finalized, bids accepted, or licences issued, both levels of government—through the regulator, CNSOER—should be required to undertake targeted, good-faith consultation with all parties directly affected. This includes Indigenous rights holders, underrepresented groups, offshore industries, commercial fisheries, and nearby rural and coastal communities. Potential environmental, social, and economic impacts must be clearly identified, assessed, and examined prior to any Call for Bids. Advancing the process without this level of engagement risks causing disproportionate harm to smaller communities whose livelihoods rely on continued access to these marine areas.

Potential Evaluation Criteria for Offshore Wind Bids

Bid evaluation criteria should require clear evidence of pre-bid engagement between proponents and existing ocean users, particularly commercial fishing interests. Proponents should demonstrate meaningful dialogue that reflects an understanding of where, when, and how current activities take place, and how coexistence could reasonably be achieved in practice.

Evaluation criteria should place significant emphasis on the quality of engagement, coexistence planning, mitigation strategies, and community benefit commitments, alongside technical and financial capacity. Without a transparent and reviewable engagement process, bidders cannot reasonably demonstrate awareness of impacts or the viability of coexistence.

Coexistence

Although commonly referenced, the concept of “coexistence” remains undefined. A clear and practical definition must be established as a prerequisite and developed collaboratively between offshore wind proponents and affected fishing and community interests.

Early and meaningful participation by impacted parties is essential to prevent known, unknown, and unquantifiable biases against established fisheries. Practical and enforceable coexistence arrangements should be negotiated directly between proponents and affected interests prior to bid approval. Federal, provincial, and CNSOER staff should not assume overlapping roles as policy-makers, arbitrators, and regulators.

Considerations for Fisheries’ Compensation

Where coexistence cannot be achieved, a comprehensive compensation framework must be negotiated and agreed upon before any bids are accepted. The current absence of finalized federal or provincial compensation frameworks creates unacceptable uncertainty for affected fisheries.

Compensation mechanisms should be negotiated directly between proponents and impacted fishing interests and informed by independent socio-economic and environmental assessments. No bid should proceed without an agreed framework that addresses displacement, disruption, and loss of access. Community benefits should form an integral component of this framework.

Please also refer to the attached Draft Compensation Framework from the Canadian Association for Seafood Security and Energy Development (CASSED). This framework, together with the one prepared by NSFAEE, provides a constructive starting point for further discussion.

Proposed Fees for Bid Submissions and Successful Bidders

Fees associated with bidding for and holding submerged land licences should be comparable to those applied to offshore oil and gas licences. These fees should also account for the full costs of meaningful participation by affected industries, including travel, accommodation, and access to independent legal, technical, and scientific expertise.

Financial security sufficient to cover decommissioning, environmental remediation, and potential disruption to fishing activities must be secured prior to project development.

Principles Listed in the Accord Acts

To give practical meaning to the term “importance” as used in the Accord Acts, developers must demonstrate measurable efforts to increase participation of underrepresented groups and to avoid, mitigate, or offset negative impacts on fishing activities. Where feasible, this may include enhancements to fishing-related infrastructure, such as public harbour facilities.

Site selection and project design must prioritize minimizing impacts on fish habitat, commercially harvested species, and navigational safety. Construction should be coordinated with fishing seasons, installation methods should mitigate underwater noise and electromagnetic effects, and displacement of fishing activity should be avoided wherever possible.

Community Benefits

Community benefits programs should only be developed following completion of a comprehensive federal socio-economic assessment of offshore wind impacts on coastal communities. Rural and coastal communities must be explicitly recognized as underrepresented and underserved, and as facing disproportionately high impacts from offshore wind development.

Community benefits should include commitments to a predominantly Canadian workforce, prioritization of underrepresented groups, and sourcing of materials, manufacturing, and services within Canada wherever feasible.

Terms and Conditions of the Submerged Land Licence

Stakeholders must be provided with complete draft terms and conditions of Submerged Land Licences in order to provide meaningful feedback. Licences should include binding provisions related to coexistence,

compensation, independent environmental and socio-economic assessments, and decommissioning plans supported by secured funding.

Development milestones must be clear, rigorous, and enforceable. Failure to meet milestones should result in licence revocation and forfeiture of assets to the Government of Canada. Licences should be non-transferable and terminated if not actively used for offshore wind development.

Participant Funding Program

The current Participant Funding Program does not adequately support informed participation. Funding should extend beyond basic reimbursement to support independent analysis, expert review, and capacity-building, enabling affected communities and industries to engage on an informed and equitable basis.

Additional Feedback and Comments

The current regulatory process places greater emphasis on capacity targets and timelines than on meaningful early engagement with existing ocean users. Limited information and compressed timelines hinder informed participation and increase the risk of conflict and social disruption in Nova Scotia's coastal communities.

Before proceeding further, governments and CNSOER must provide detailed project information, complete independent assessments, and allow sufficient time for review. Respect for existing industries that have long supported local and provincial economies must remain central to any offshore wind development framework in order to ensure long-term sustainability and social licence.

Nova Scotia Offshore Wind Development
Integrated Regional Compensation Framework

Introduction

This master framework provides a structured, transparent, and comprehensive approach for evaluating and compensating economic and community impacts arising from offshore wind development in Nova Scotia. This approach is intended to apply only after all efforts of "co-existence" have been exhausted through a combination of indirect and direct negotiations among all affected parties. It integrates sector-specific compensation pathways into five distinct categories:

1. License-Based Harvesting
2. Indigenous Commercial and Rights-Based Harvesting
3. Marine Users (Non-Fishing License Holders)
4. Shore-Based Dependent Businesses (e.g., processing plants)
5. Community Losses

These categories ensure equitable, sector-appropriate mechanisms for compensating for direct, indirect, and cumulative negative impacts to Nova Scotia's coastal economy.

1. Guiding Principles

- **Compensation to be a Condition of License for OSW Developers**.
- **Fairness & Transparency**: Open criteria, clear formulas, public governance.
- **Evidence-Based Decisions**: Claims grounded in verifiable data.
- **Independent Administration**: Neutral third-party claims processing.
- **Respect for Indigenous Rights & Treaties**.
- **Long-Term Accountability**: Compensation persists as long as impacts persist.

2. Compensation Categories

2.1 License-Based Harvesting (Non-Indigenous Commercial Fisheries)

This category applies to commercial fish harvesters operating under non-Indigenous licences issued by NSDFA and DFO-Canada.

Eligible Impacts:
- Loss of access to fishing grounds.
- Increased steaming time or fuel usage.
- Gear loss or damage.
- Impacts to moorings or water conditions.
- Reduced catch or stock displacement.
- Temporary or long-term business interruption.

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- License value loss

Compensation Mechanisms:
- Lost revenue based on verified historical landings.
- Reimbursement of increased operational expenses.
- Gear replacement or repair.
- Long-term displacement compensation where impacts persist.
- Reimbursement for license value loss

2.2 Indigenous Commercial and Rights-Based Harvesting

This category recognizes constitutionally protected Indigenous harvesting rights, covering both rights-based and communal commercial fisheries.

Eligible Impacts:
- Interruption of treaty-protected marine access.
- Effects on culturally significant species.
- Disruption of Indigenous-run commercial fisheries.
- Loss of traditional harvesting areas.
- Cultural and non-market losses not captured by financial metrics.

Compensation Mechanisms:
- Commercial compensation for economic impacts.
- Indigenous-defined Community Benefit Agreements.
- Indigenous-led monitoring, habitat protection, and stewardship programs.
- Cultural compensation approaches defined by affected Nations.

2.3 Marine Users (Non-Fishing License Holders)

This category includes all marine-dependent users who do not hold commercial fishing licences.

Examples of Marine Users:
- Marine tourism operators.
- Shipping, tug, and barge services.
- Marine construction and offshore service companies.
- Recreational marine organizations.
- Port-dependent coastal businesses.

Eligible Impacts:
- Navigation disruption.
- Reduced customer access (tourism).
- Rerouting, delays, or operational inefficiencies.

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- Infrastructure damage.

Compensation Mechanisms
- Lost revenue verified through production or customer data.
- Reimbursement of increased costs.
- Physical infrastructure damage claims.
- Transitional business interruption support.

2.4 Shore-Based Dependent Businesses (e.g., Fish Processing Plants, License Owners)

This category includes land-based businesses whose operations rely on consistent supply from fishing or marine harvesting sectors impacted by offshore wind development. These businesses often experience secondary economic disruption when access to resources is restricted offshore.

Examples Include:
- Fish processing plants (groundfish, pelagic, shellfish, sea cucumber, etc.)
- Live holding facilities
- Bait suppliers and bait-freezer operators
- Ice plants and cold storage facilities
- Transport and logistics providers tied to harvest volume
- Marine-dependent manufacturing or value-added processors

Eligible Impacts:
- Reduced raw material supply volume due to decreased landings.
- Production slowdowns or stoppages.
- Increased cost of sourcing product from more distant suppliers.
- Contract losses due to inability to meet buyer demand.
- Workforce impacts (layoffs, reduced shifts) connected to wind-related disruption.
- License value loss

Compensation Mechanisms:
- Lost revenue based on production reduction.
- Reimbursement for increased procurement costs (transportation, sourcing).
- Compensation for unfulfilled supply contracts.
- Support for labour retention during downturns.
- Capital investment support if facility adjustments are required.
- Reimbursement for license value loss

2.5 Community Losses

This category captures social, municipal, cultural, and public-interest impacts affecting entire communities.

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Examples of Community-Level Impacts:
- Reduced access to public coastline or harbours.
- Traffic and transportation disruption.
- Housing pressure from project workforce.
- Visual impacts affecting tourism.
- Strain on emergency or municipal services.

Community Compensation Tools:
- Community Infrastructure Funds.
- Tourism mitigation and marketing initiatives.
- Municipal service support programs.
- Coastal access improvements.
- Workforce housing investment.

3. Required Documentation Across All Categories

- Baseline financial data (2–5 years).
- Proof of operational footprint.
- Production, sales, or customer records.
- Evidence of impact such as logs, photos, incident reports.
- Verification of increased costs.

Alternative verification available for informal or small operators.

4. Compensation Fund Structure

A Regional Business Impact Compensation Fund (RBICF) will be established and funded by offshore wind developers. Governance will include provincial representatives, municipalities, Indigenous leadership, business sector delegates, and non-voting offshore wind observers. An independent third-party administrator will manage all claims.

5. Claims Process

1. Pre-Impact Registration (Failure to do so does not automatically disqualify a claimant)
2. Impact Occurrence
3. Claim Submission
4. Verification & Assessment
5. Compensation Decision
6. Appeals Process

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6. Long-Term Monitoring & Adaptation

- Annual formula review.
- Five-year cumulative impact assessment.
- Adjusted developer contributions based on evolving impacts.
- Public reporting for transparency.

7. Ethical & Social Licence Requirements

Compensation must support—not replace—proper consultation, coexistence planning, and Indigenous rights. Engagement must be early, ongoing, inclusive,.

8. Governance Structure

Independent Compensation Board including:

• Fisher representatives

• Indigenous leadership

• Marine economists

• Government observers

• Developers (non-voting)

Responsibilities will include validating formulas, reviewing claims, ensuring timely payment, and publishing reports.

10. Additional Safety Measures

• Mandatory decommissioning bonds

• Insurance-backed environmental guarantees

• Seasonal construction windows

• Marine Traffic Management Plan co-designed with industry

11. Transferability and Survival of Compensation Obligations

In the event that the Wind Farm Operator ("Assignor") elects to transfer, delegate, assign, sublet or convey to any other person, firm or corporation ("Assignee") all or any of the property, powers, rights and interests obtained by or conferred upon it by this Lease/License the Assignor and the Assignee shall be ***jointly and severally***

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liable *for all of the Assignor's original obligations with respect to compensation*. The Assignor shall have an enduring responsibility to indemnify third parties for any failure on the part of the Assignee to perform the compensation obligations required by the Lease/License and applicable legislation.*

Notwithstanding anything herein contained, any compensation liabilities or obligations of the Wind Farm Operator which arise under this Lease/License and applicable legislation which accrue prior to any partial or complete expiry, surrender, reversion or termination of the Lease/License* ***shall survive*** *such expiry, surrender, reversion or termination.*

*Note: the term "compensation" remains to be defined.

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APPENDIX A: COMPENSATION FORMULAS

A. Compensation Components

i. Direct Economic Loss, Immediate

Direct Loss = $\Sigma_{s,t}$ (Forecasted Gross Revenue$_{f,s}$ – Actual Gross Revenue$_{f,s}$) × (t / 365) × N

where the direct loss is computed over a given period in days t (a month or a season, for example) for a given entity f; the summation runs over all species routinely/historically fished or processed by a specific entity (based on prior documentation) in a comparable period to t, with each species denoted s;

Forecasted Gross Revenue$_{f,s}$ = Annual Forecasted Gross Revenue$_s$ × λ_f

forecasted gross revenue for a specific entity f with respect to a given species s is the annual per-species forecasted gross revenue for the area, multiplied by a fisher-specific scaling factor λ_f over a recent period, e.g. the last 3-5 years;

λ_f = Entity's Average Historical Revenue / Area's Average Total Historical Revenue

annual forecasted gross revenue for a species s is based on a sufficient data set of catches and values in the area using a damped-trend exponential smoothing model; and N is a normalization/scaling constant that can be used to address issues with respect to prorating compensation (for example, a graduated phase-out over time or a proration based on inadequate historical data).

ii. Extraordinary Costs Resulting from Displacement or Disruption

This compensation category addresses unavoidable and extraordinary fixed and indirect operating costs incurred by affected businesses as a result of offshore wind development related to disruption, displacement, or inefficiencies related to the avoidance and exclusion from wind farm areas. These costs persist even when production or revenue is unaffected or reduced and are not fully captured through Direct Economic Loss calculations alone.

Extraordinary Compensation$_{f,t}$ = Σ_c (Expected Cost$_{t,c}$ – Actual Cost$_{t,c}$) × λ_c

where the extraordinary compensation for a given period t and given entity f is computed by a summation of scaled differences running over all relevant costs c; an expected cost for a period t is based on a forecast that makes sense for the given cost and scaled for the time period t, e.g. a recent-period weighted average, the most recent price, etc; and λ_c is a scaling factor specific to the given cost.

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Covers additional fuel consumption, insurance, licensing, maintenance & minimum upkeep, lease/berth fees, labour retention, and more. For "Marine-Users, non fishing", in addition to the above, this also covers things like labour costs for additional time at sea, etc.

iii. **Future Earnings Loss (NPV Model)**

Future Loss = Σ [(Annual Lost Revenue + Annual Lost Profit Growth) ÷ (1 + Discount Rate)^t]

Use 8 years and 2% discount rate.

iv. **Intergenerational & Community Impact Fund**

Recommend 2–3% of total project CAPEX dedicated to community and fisheries support.

v. **Gear Damage & Navigation Hazard Compensation**

Rapid-pay (30 days) system for gear loss, vessel damage or costs incurred navigating around potential hazards caused by offshore wind development

Gear Damage/Loss Compensation = [(the lesser of replacement cost or prompt repair to a comparable pre-damage state) – (insurance payment)] × (scaling factors)

where the scaling factors could be used to include depreciation, to adjust compensation for partial loss of useful life, to reduce compensation for damage to short-lived assets, and/or to adjust compensation for partial payments in cases of mixed culpability.

vi. **Cultural & Treaty Rights Compensation**

Dedicated funding of $500,000–$2M per project for Indigenous access impacts.

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vii. **Displacement Premium**

Disruption ×1.1
Partial Displacement ×1.5
Full Displacement ×2.0–3.0

* Full Compensation Formula*

Total Compensation =

Direct Economic Loss

+ *Extraordinary Costs*

+ *Future Earnings Loss (20-year NPV)*

+ *Community Impact Fund Contribution*

+ *Gear Damage & Navigation Costs*

+ *Indigenous Treaty Impact Compensation*

+ *Displacement Premium (TBD)*

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Downtime Compensation = (Average Daily Production/Procurement × Days of Interruption) – Avoided Costs + Standby Costs

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In words: *the present value of all future profit lost because of the wind farm*.

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1. **Market Value Loss**

$C_1 = (V_0 - V_1) \times A$

2. **NPV of Lost Earnings**

$C_2 = \Sigma_{t=1}^{T} (\Delta\pi / (1 + r)^t)$

Then define:

Final Compensation for Licence Value Loss = max(C_1, C_2)

You can also write this in policy language like:

"Compensation for permanent or long-term loss of commercial licence value shall be calculated as the greater of (a) the verified loss in market value of the licence attributable to offshore wind development, and (b) the net present value of projected future profit reductions attributable to offshore wind development, using an agreed discount rate and time horizon."

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The government-identified Wind Energy Areas of Sydney Bight, Middle Bank, and French Bank have supported commercial fishing activity for generations and remain foundational to the economic, social, and cultural wellbeing of coastal and rural communities in Nova Scotia. Any identification of development parcels within these areas must be guided by a clear objective to prevent disruption or displacement of existing fishing activity and the shore-based economies that rely on it.

Prior to finalizing parcels, accepting bids, or issuing licences, both the federal and provincial governments—through CNSOER—should be required to carry out focused, good-faith consultation with all directly affected interests. This includes Indigenous rights holders, commercial fisheries, offshore industries, underrepresented groups, and nearby coastal and rural communities. Environmental, social, and economic impacts must be identified and assessed in advance of any Call for Bids. Moving forward without this level of engagement risks causing disproportionate and lasting harm to communities dependent on continued access to these marine areas.

Potential Evaluation Criteria for Offshore Wind Bids

Bid evaluation criteria should require proponents to demonstrate substantive engagement with existing ocean users prior to submitting a bid, particularly with commercial fishing interests. Proponents should be expected to show that they have sought to understand how, where, and when existing activities occur and to explain how coexistence could realistically function within specific fishing grounds.

Evaluation frameworks should place meaningful weight on the quality of engagement, coexistence planning, mitigation approaches, and community benefit commitments, in addition to technical and financial capability. Without a transparent and reviewable engagement requirement, bidders cannot credibly assess impacts or propose workable solutions.

Coexistence

Although frequently referenced in policy discussions, “coexistence” has yet to be clearly defined. A practical and operational definition must be established as a condition of the bidding process and developed jointly by offshore wind proponents and affected fishing and community interests.

Early and genuine involvement of impacted parties is necessary to avoid systemic bias against established fisheries. Coexistence arrangements must be practical, enforceable, and negotiated directly between proponents and affected interests before any bids are approved. Governments and regulators should not act simultaneously as policy developers, mediators, and regulators in matters affecting existing ocean users.

Considerations for Fisheries’ Compensation

In circumstances where coexistence cannot be achieved, a comprehensive compensation framework must be established and agreed upon prior to the acceptance of any bids. The current absence of finalized federal or provincial compensation mechanisms creates significant uncertainty for affected fisheries.

Compensation arrangements should be negotiated directly between proponents and impacted fishing interests and informed by independent environmental and socio-economic assessments. No project should proceed without a framework that addresses displacement, operational disruption, and loss of access. Community-level benefits should be incorporated within this framework.

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Principles Listed in the Accord Acts

To ensure that the concept of “importance” within the Accord Acts is applied meaningfully, developers must demonstrate tangible efforts to increase participation by underrepresented groups and to avoid, mitigate, or offset adverse impacts on fishing activities. Where feasible, this may include investments in fishing-related infrastructure, such as public harbour improvements.

Project siting and design must prioritize protection of fish habitat, commercially harvested species, and navigational safety. Construction schedules should align with fishing seasons, installation methods should minimize underwater noise and electromagnetic effects, and displacement of fishing activity should be avoided wherever possible.

Community Benefits

Community benefits programs should be developed only after completion of a comprehensive federal socio-economic assessment examining the impacts of offshore wind development on coastal communities. Rural and coastal communities must be explicitly recognized as underrepresented and likely to experience disproportionate impacts.

Community benefit commitments should include a predominantly Canadian workforce, prioritization of underrepresented groups, and the use of Canadian-sourced materials, manufacturing, and services wherever feasible.

Terms and Conditions of the Submerged Land Licence

Stakeholders must be provided with full draft terms and conditions of Submerged Land Licences to allow for meaningful review and input. Licence conditions should include enforceable requirements related to

coexistence, compensation, independent environmental and socio-economic assessments, and decommissioning plans supported by secured funding.

Development milestones must be clearly defined and enforceable. Failure to meet milestones should result in licence termination and forfeiture of assets to the Government of Canada. Licences should be non-transferable and revoked if not actively used for offshore wind development.

Participant Funding Program

The existing Participant Funding Program is insufficient to support informed and equitable participation. Funding should extend beyond basic reimbursement to enable independent analysis, expert review, and capacity-building for affected communities and industries.

Additional Feedback and Comments

The current regulatory approach places a stronger emphasis on capacity targets and timelines than on early, meaningful engagement with existing ocean users. Limited information and compressed consultation periods restrict informed participation and heighten the risk of conflict within Nova Scotia’s coastal communities.

Before advancing further, governments and CNSOER must provide detailed project information, complete independent assessments, and allow sufficient time for review. Offshore wind development must be pursued in a manner that respects existing industries that have long contributed to local and provincial economies and ensures long-term sustainability and social licence.

HOOD FRASER D'ENTREMONT
LAW FIRM

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January 12.2026

MY FILE NO. 25CH1170

Via email: cfiske@cnsoer.ca

CANADA-NOVA SCOTIA OFFSHORE ENERGY REGULATOR
ATTN: COLLEEN FISKE
27 – 201 BROWNLOW AVENUE
DARTMOUTH NS B3B 1W2

Dear Ms. Fiske:

Re: CNSOER Participant Funding Program (PFP)

We represent Supreme Sea Harvests Inc. of 194A Montague Street, Lunenburg, Nova Scotia, BOJ 2CO and its associated company, 4519497 Nova Scotia Limited, and a principal investor, Jose Teixeira, of the same address.

This company operates in a segregated segment of the offshore ottertrawl-groundfish fishery, fishing for silver hake.

By way of historical context silver hake is classified as a groundfish and up until the late 1980s was fished almost exclusively by foreign fleets. Over a period of time it was Canadianized.

This company and its predecessors, including Mr. Teixeira, have been key players in the industry during the Canadianization process.

The company operates and owns three groundfish draggers, whose crews are employed by the company as sharesmen.

The company has reviewed the email sent out previously.

Dear Ms. Fiske:

Much of same appears to be focused on proponents for windmill development.

Bottom line, the intent of this letter is to identify to the Regulator, any proponents and any government agency, of its financial stake in potential development in the offshore wind sector.

It appears that in the near term Sable Island Bank is not involved.

One of the identified areas, French Bank, definitely will interfere with the operations of the company, the extent to which will have to be determined going forward. It could be catastrophic.

DFO controls conditions of license and other policy measures in relation to the issuance of quotas. The company has been issued and has entitlements, subject to regulatory process, to a significant portion of the silver hake quota. It is an active company with approximately $10,500,000.00 in annual sales. It has operated for upwards of thirty years and has net annual income, after expenses, depreciation, taxes etc. of $1,000,000.00 to $1,500,000.00.

The company's interest in the silver hake fishery is to ensure that its specialty of silver hake is silver hake harvesting, processing and sales is not negatively impacted in any way by the development of offshore wind projects.

In addition, it being a relatively separate segment of the ottertrawl fishery, it does not wish to be compromised by decisions made on behalf of other sectors, or portions of the groundfish fishery which will likely also be making representations.

The company wishes to be in the loop so to speak as matters progress.

Preliminary research indicates that the projects contemplated are speculative and may or may not eventually come to fruition.

Compensation is discussed and obviously may become relevant in due course.

I will be representing the interests of the company, at least for the interim period.

Dear Ms. Fiske:

If it is required for the company to provide additional information at this point in time please advise and we would be pleased to deal with the matter as quickly as possible.

I have extensive background as a representative in the past of numerous fishing organizations and in fact was involved in domesticating the offshore silver hake fishery.

I have had other experiences in the offshore. I was employed by Shell Canada doing seismic work during a time when I was studying engineering at Dalhousie, later as a survey technician. I was charged with the responsibility of doing location surveys on Sable Island and in fact was present on the day the first oil and/or gas well was spudded in on Sable Island in the course of that employment. So I do have a keen interest.

In addition, I was Chair of an industry government committee sponsored by the Provincial Government which travelled to Norway to investigate the impacts on the fishery and other entities in the oil and gas industry in Norway in or about 2007.

Yours very truly,
HOOD FRASER D'ENTREMONT

for S. CLIFFORD HOOD, K.C.
SCH/jhc

Cc client

This is in response to an offer from the Canada Nova Scotia Offshore Energy Regulator (CNSOER) for commentary on a "Compensation Framework" within the context of Offshore Wind (OSW) proposals for the Scotian Shelf

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A framework is a structured process describing how to apply policy decisions.

OBSERVATIONS:

- The regulator identified as the "Canada Nova Scotia Offshore Energy Regulator"(CNSOER) is tasked as the controller to determine who, where, when and under what operating conditions proponents can bid on Offshore Wind (OSW) access on the Scotian Shelf.
- Currently, there is no OSW Canadian legislated criteria providing an actual definition of what is meant by "compensation", nor any legislated process that could guide how compensation would be negotiated or applied and, if so, under what circumstances.
- Similarly, no known legislated criteria exist defining "co-existence" between the OSW proponents and fishing interests, nor how that could be achieved
- To date, there is an absence of both an independent Social-Economic and Environmental Impact Assessment.
- Similarly, there is no known identification of liabilities assigned to either the OSW industry or the fishing industry. For example, how would it be determined who's insurance pays what to whom, and under what circumstances?
- There are no known fisheries experienced staff within the two principal departments (NRCan-NSDOE) supporting the CNSOER in reviewing, advising, guiding regulatory impact, control and governance of OSW inter-fisheries actions.
- An absence of accountability occurs throughout the entire process. While the supporting Federal and Provincial Departments have provided some measured mechanisms for consultations and input, there is no clear accountability framework identified as to which Department or Government is accountable for which decisions.
- Other than making public OSW announcements, the Political Policy makers within this process have largely been absent from the consultative process, thereby shifting transparencies and accountabilities to their respective Departments.
- There is apparently limitless Government funding and human resources for NRCan-NSDOE expenditures. In addition, non-governmental organizations and interests, i.e. "Net Zero" have received millions of taxpayers funds to support an OSW process. Conversely, there has been no publicly known equivalent financial support offered to the fishing industry to defend their rights and interests, and participate within a complicated and convoluted process.
- Consultative, assessment and implementation timelines are convoluted and fast-tracked without explanation creating what is known typically as a "Crises Bargaining Strategy".

- Both Federal and Provincial levels of government exert almost limitless governance control over the fishery. Concerns exist that legislated authorities such as plant processing licencing, fishing access and allocations, and support for fishing associations could be subject to negative government pressures or offered enticements to comply and support their OSW policies.
- There is an absence of a Co-ordination of Frameworks encompassing individual frameworks involving compensation, co-existence, implementation and licencing, determining liabilities, scheduling and timing, consultations, accountabilities and arbitration of disputes.
- The current CNSOER approach creates the appearance of scattering focuses on specific initiatives, i.e. "compensation", while omitting focuses on others, i.e. Co-existence, Licence Conditions, liabilities, etc. This strategy is well known in government and is evident in this process.
- Under the current circumstances, concerns are increasing that CNSOER oversees the process, determines the outcomes by acting as the sole arbitrator in disputes regarding co-existence and compensation etc, all occurring in the absence of established transparencies and accountabilities.

ASSESSMENTS:

- The lack of any known Canadian OSWW legislated definition and criteria identifying terms of co-existence, compensation, or establishing process while leaving arbitration processes up to the discretion of the regulator, creates the widespread impression of controlled bias. This, combined with an absence of transparency and accountabilities, may lead to a breakdown in confidence in the process by all impacted by OSW.
- The late timing in calls for industry to define a Framework on Compensation, without a definition, and without linkage to equally important frameworks, at the same time as scheduling a call for OSW bids, does little to enhance confidence in the CNSOER's intent and legitimacy.
- Similarly, the CNSOER is indicating they are working on a Social-Economic and Environmental Assessment processes which is after-the-fact, not prior to the call for OSW bids. Questions continue on the timing of these processes, leading to doubting the legitimacy of conclusions and recommendations resulting from any assessments.
- The issue of liabilities has been noticeably absent from consultations. What isn't clear is how the insurance underwriters will value their costs for either the OSW proponents and/or the fishing industry. A key question is whether governments will have any role in underwriting operational insurances for OSW entities and the fishing industry and, if so, to what extent.
- The absence of known fisheries expertise and experience in NRCan and NSDOE tasked with guiding the CNSOER regarding OSW policy and operating provisions affecting the largest Nova Scotia industry is concerning. This absence creates an impression that

government is either relying on a plausible deniability of complex fisheries issues, or lack of foresight. This could be easily remedied by having unbiased fishery expertise included.

- The obvious omission of an accountability framework clearly indicates this is a process whereby no single entity is accountable for decisions or recommendations. This is akin to design by committee where “distinctions occur without a difference” The absence of designing and applying an accountability framework in the midst of a complex and highly controversial project will inevitably cause more controversy.
- Both Federal and Provincial political policy providers have demonstrated an ability to publicly broadcast their OSW policy announcements. What has been missing from this process is an acknowledgement that these policy announcements may have profound consequences to both the Nova Scotian fishery and the communities dependent on them. Meetings with local MPs and MLAs have generated little interest other than proverbial “lip service” with no interest in follow-up. The expected consequences of these experiences will no doubt increase the level of public controversy.
- Noticeable funding disparities exist between Government Departments, NGOs and the fishing industry. Government Departments have almost limitless resources to draw from, and Net Zero is subsidized by millions of dollars from taxpayers. Little to no similar support has been offered to the fishing industry, as the most affected industry, and Nova Scotia’s largest industry, to defend their interests. This obvious discrepancy has created the impression that government prefers to financially starve the fishing industry to unconditionally accept OSW. The consequences of this will potentially increase public controversy.
- The current fast-tracking of time lines, i.e.: calling for access bids without explaining the rationale, while simultaneously focusing on continued consultations of other issues, i.e: compensation, and co-existence, creates the impression of deliberate distraction. The inability to cross link implications and effects between key issues in the absence of a strategic framework will likely increase public controversy.
- Throughout the fishing industry and the many communities that depend on them, anxieties exist on whether they should challenge OSW impacts which might lead to a form of “subtle intimidation”. Considering that Government controls access and allocations of processing licences, fishing licences, geographical and species access and allocations, these concerns are ever present. The lack of a public government statement indicating that challenges to OSW will not prejudice their dependence on government programs will likely increase public controversy, especially as the fishing sector and rural communities are part of the economic backbone of Nova Scotia.
- The failure to link individual frameworks into an integrated broader strategic framework negatively impacts public confidence of consultations, overall program intent, transparency, and accountabilities. A strategic framework linking sub-set frameworks, i.e.: compensation and co-existence, is considered essential in moving forward to minimize fishing industry conflicts and potential liabilities. While it is not clear how a project of this magnitude evolved this far without a strategic framework, it should be obvious it is now

time to implement a broad-based inter-linked Strategic Framework encompassing individual frameworks. Failure to do this will cause increased public controversy.

- Given the CNSOER is the regulator and overall arbitrator of the entire OSW process combined with NRCan and the NSDOE in determining OSW process and outcomes, creates a perception of bias. While this phenomenon may be considered efficient by Government standards, it is considered by some non-government interests as an example of poor governance and a significant conflict of interest. Not to have created an independent judicial oversight process to adjudicate conflicts and liabilities will inevitably generate increased public controversy.

CONCLUSIONS

- There is an urgent necessity to integrate a Strategic Framework involving key individual frameworks currently being focused on in isolation of one another, i.e.: compensation, co-existence, liabilities, and allocations and access of operating licences. This is considered fundamental in managing large projects and questions arise as to why a public Strategic Framework has not been applied in this instance to OSW. Failure to apply a public Strategic Framework questions the legitimacy of the entire project and process.
- The current circumstance whereby government retains absolute control of the entire OSW process by acting as the promoter of the project, including the sole arbitrator of all initiatives, including the resolution of conflicts and liabilities, brings into question the legitimacy of the entire project and process. As a consequence, there is a clear requirement to appoint an independent judicial entity to oversee the broad-based interests of all, and avoid the increasing perception of "conflict of interest" in biasing one-sided decision-making.
- There remains a high probability that failure to apply these basic fundamental principles will likely result in the fishing industry and their affected communities having no choice but to express their "*rights and interests*" through the Federal court system.

Chris Jones
Marine & Fisheries Consultant
Chester Nova Scotia
January 12, 2025

The CNSOER welcomes your suggestions and feedback on the government identified Wind Energy Areas (Sydney Bight, Middle Bank, and French Bank) and the factors the CNSOER will use to design parcels within those Wind Energy Areas.	These banks are primarily commercial fishing harvest areas and should not be subject to Offshore Wind development. Established economic fishing activity should not be disrupted or displaced. Before any bids are approved, both levels of government through the regulator, CNSOER, should be required to engage in further consultation with any group or groups that will be directly impacted by the development of the identified areas. This would include Indigenous or other underrepresented groups, offshore industries, other stakeholders, affected fisheries, and adjacent rural communities that could be negatively impacted by the decisions of Government and CNSOER. Possible impacts to these groups or communities should be identified and scrutinized before any bids are received or licenses granted to potential developers. These steps must be taken to ensure proper consultation and engagement with smaller significant stakeholders.
The CNSOER welcomes your suggestions and feedback on bid submission criteria to be used as part of the Call for Bids process, including specific criteria, criteria weighting, scoring metrics, and evaluation methods.	As a prerequisite for offering/receiving a bid, potential bidders must demonstrate meaningful engagement with current users of identified banks regarding potential coexistence with pre-existing commercial activities; fisheries or otherwise. The absence of a reviewable engagement process creates an environment whereby bidders are not required to demonstrate potential for coexistence. There is no means for a bidder to demonstrate knowledge of how they could coexist or an understanding of the locations within the identified areas where existing users of the banks currently operate. To ensure environmental sustainability, a comprehensive environmental impact assessment and a comprehensive socio-economic impact assessment should be completed by an arms-length, third-party entity with no ties to offshore wind developers or government agencies promoting offshore wind development. Anyone whose job or income is likely to be adversely impacted by offshore wind development should receive training subsidies and be prioritized during the hiring process for supply chain and workforce development.

The CNSOER welcomes your suggestions and feedback on coexistence.

Perhaps one of the most obvious omissions not identified nor referenced by the regulator is that of what is meant by "coexistence". What does this term actually mean? Who determines how, where, when and to what degree the term "coexistence" can or should apply?

"Coexistence" should be defined and determined by OSW proponents and affected fishing and community interests. This is a vital step to achieve an understanding that combines subject knowledge expertise, experience, practical working requirements, and trust. The subject-matter of offshore wind development is sensitive, controversial, and has sweeping social and economic effects.

Meaningful early participation by interested parties in determining "coexistence" is critical to avoid known, unknown, and unquantifiable biases against established fisheries. Commercial entities directly impacted by offshore development, including the fishing industry, must reach an understanding prior to any attempt by government to approve bids or otherwise grant or restrict offshore rights and interests.

Federal, Provincial and CNSOER staff should not engage in policy and operational arbitration while simultaneously acting as regulators.

The CNSOER welcomes your suggestions and feedback on behalf of governments on considerations for fisheries' compensation.	If coexistence is not possible, the bidders, Provincial Government, and Federal Government must have a detailed framework for compensation; noting that the definition of coexistence remains to be determined. The "compensation process" must be determined by the bidders and the affected fishing industry interests. At present, we do not accept the premise that governments are developing an approach to fisheries' compensation. The information provided at the last meeting of the CNSOER FAC was that the Federal Government had not progressed at all on a compensation framework, and that it had no timeline to do so. Rather, it appeared that government was relying on industry to develop a compensation approach. No bid should be accepted prior to a compensation framework being debated and agreed upon by all interested parties. Considering that both the OSW proponents and the fishing industry possess the expertise and experience to successfully negotiate and apply coexistence and compensation frameworks in the absence of government intervention, it remains our contention that a commitment to adhere to these two policies must be a prerequisite for the authorization of any OSW bids. In addition to the above, the standard Federal requirement for an independent socio-economic and environmental assessment on the impacts of OSW must be met prior to development. Any failure to adopt and incorporate these prerequisites into the bidding process is likely to cause significant conflict, confusion, and unnecessary civil strife throughout Nova Scotian coastal communities. See appended to this submission a potential framework for compensation to be considered and discussed.
The CNSOER welcomes your suggestions and feedback on the fees for bid submissions and successful bidders.	The fees associated with bidding and receiving "submerged land" licences should parallel the fees required for offshore oil and gas licences. The costs for industry to engage with developers, the regulator, and the Government should be covered by these fees. Including but not limited to travel, hotel, meals and legal advice.

The CNSOER welcomes your suggestions and feedback on considerations and adherence to the principles listed in the Accord Acts.

In order to respect and give meaning to the term "importance" as utilized in the legislation, there must be a demonstrable and measurable effort by developers to take positive steps to increase participation of under-represented groups and to avoid or mitigate negative effects on fishing activities. This obligation may extend to a requirement to enhance fishing activities, if and where feasible (e.g., possible improvements to public harbour facilities).

With respect to the consideration of effects on fishing activities during the submerged land licence issuance process, we submit the following:
- Site selection must prioritize minimal impact to fish habitat considering both (a) presence of commercially viable fish species and (b) recovery time.

- Turbine foundation and cable selection/construction must be respectful of integrity of marine ecosystem and materials/construction type must be selected to minimize negative impact.

- Construction activities must be coordinated with local fishing season for applicable site; i.e., construction activities must avoid direct overlap with active fishing areas. This includes minimizing interference with transportation and navigational activities from site to shore (port loading/offloading).

- Installation methods must be selected with an aim to mitigate negative effects of underwater noise on marine fauna (e.g. source reduction, propagation reduction, receptor protection and alternative foundation - see: https://www.slrconsulting.com/ca/insights/offshore-wind-turbines-and-underwater-noise/; see also: https://pubs.aip.org/asa/jasa/article/151/1/205/2838069/Offshore-wind-energy-development-Research).

- Financial security must be provided to cover clean-up costs and fishing industry disruption that may be caused by potential debris. Case study example: https://www.nationalfisherman.com/fishermen-protest-vineyard-wind-turbine-collapse

- All operational planning must prioritize navigational safety. Navigational requirements for seafood harvesters must be considered in determining setbacks/exclusion zones around turbines and any navigational routes that overlap with commercial harvesting areas.

- Concern for electromagnetic currents - a precautionary approach

must be employed in light of uncertainty regarding negative effects.
o https://pubmed.ncbi.nlm.nih.gov/39571480/

- Displacement of fishing activities should be avoided. In the event that displacement is unavoidable, the following considerations should be employed:
o Compensation regime for displacement from buffer zone around turbine and any areas where fishing activities are restricted
o Mitigation of negative effects (i.e., interference should be minimized)
o Ban/restriction on construction activities in or adjacent to critical fishing areas (harvesting/spawning/nursery)

The CNSOER welcomes your suggestions and feedback on possible considerations for community benefits programs related to offshore wind development.

A community benefits program should only be developed after a Federal "social-economic assessment" of OSW impacts on coastal communities has been completed. Ideally, this would comprise a detailed consultative reference with realistic considerations for benefits as opposed to anecdotal references. Once an assessment was completed with input ranging from Municipal governance interests to local social interests i.e. Rotary Clubs etc., a balanced framework of impacts and requirements could be established.

A community benefits package should be included in the Compensation Framework.

Included in the underrepresented and underserved groups are rural communities along the coast that will be directly affected and impacted. These communities are underrepresented at the government and political level because of low population numbers. These communities will be impacted at a disproportionately high level by offshore wind development and have multiple generations of residents from Acadian and Metis backgrounds. These communities should be consulted with particular attention given to their unique concerns.

The workforce employed by Wind Energy companies during development of projects in Canada should be comprised of a majority Canadian workforce, including but not limited to, underrepresented groups.

The community benefits program should require a commitment by bidders that any raw materials or equipment, along with manufacturing of raw materials and equipment, should be sourced or completed within Canada whenever possible.

The CNSOER welcomes your suggestions and feedback on possible terms and conditions for the draft Submerged Land Licence.

It is critical that stakeholders be provided with proposed terms and conditions for the draft Submerged Land Licence in order to provide meaningful feedback. This has not happened yet. The draft document provided does not contain actual terms and conditions but rather a limited summary of some select terms and general notions. Accordingly, what follows is some preliminary feedback based on the limited information provided:

1. Rights of the Submerged Land Licence
a. Site assessment authorization (SAA)
i. Assessment of environmental effects must be performed by a qualified third party;
ii. Risks to benthic habitat and species that are harvested commercially must be expressly considered;

b. Construction, Operations and Maintenance Authorization (COMA)
i. Mitigation of harm to commercial species and marine habitat must be prioritized;

c. Decommissioning and Abandonment Authorization
i. Remediation of the benthic environment is critical;
ii. Mitigation of negative effects with respect to local fishing efforts must be prioritized;

2. Submerged Land Licence Periods
a. Development milestones should be rigorous and nonnegotiable. If at any point these milestones are consistently not being met, the land lease should be revoked and all assets within forfeited back to the Canadian government. The combination of the expressed "fiat" principle, i.e., "duration of a Submerged Land Licence, which must be at least 35 years", with no accompanying rationale or reference, combined with no context or definition of "Community Benefits" and "Coexistence with existing ocean users and uses" makes it difficult to provide meaningful feedback. Stakeholders should be afforded an opportunity to comment on the rationale and intended application of these concepts.

3. Termination
a. This land license should be non-transferable and should be terminated immediately if it is not being used for offshore wind development on an ongoing basis.

b. When is decommissioning determined and by whom? Who funds this process, the proponents, the Municipalities, the Province of Nova Scotia, the Federal Government, or the fishing industry and what is the contribution ratio?

4. Rentals and Levies

a. No comment

5. Financial Assurance
a. Financial security must be provided (e.g. bond/guarantee) that has independent backing; (see for example: https://cbond.ai/energy-bonds/decommissioning-bond/)

b. The amount of the financial security must cover decommissioning costs inclusive of environmental remediation;

c. A compensation package must be part of the terms and conditions;

d. A decommissioning plan and fund must be part of the terms and conditions.

6. Engagement
a. The Term & Conditions should be completed by an arm's-length third-party entity with no economic ties to the successful bidder.

b. Interest Owner must demonstrate a good faith effort to address concerns raised by participants in the commercial fishing industry;

c. Interest Owner must provide detailed information regarding scope of work, sufficient to inform navigational and environmental concerns;

d. There must be application of a "Social-Economic and Environmental Assessment with an opportunity for stakeholder feedback; There is a need for deliberations and consultations surrounding a "decommissioning strategy including funding".

7. Required Plans
a. Any plan for co-existence must directly incorporate feedback from fishing industry stakeholders;

b. Any plan considering effects on fishing activities and compensation must be specific, binding, and enforceable.

c. An independent environmental assessment must be part of the terms and conditions.

The CNSOER welcomes your suggestions and feedback on considerations for a Participant Funding Program.	The proposed funding program is of minimal value. The available funding for participating in the Call for Information is limited to reimbursement for travel, meeting attendance, and translation. There were no meetings; therefore, no reason to travel. New technology can assist with translation, for next to no cost. As noted in a previous section, funding should apply to all engagement by industry interested to do so, in order to cover at minimum the travel, hotel, meals and legal advice required for meaningful engagement with OSW developers, regulators and the Government.

The CNSOER welcomes any additional feedback and comments,.

In the Strategic Direction letter, the Governments notes at paragraph 4 that the first step for Government is to "... target issuing licenses up to 3000 megawatts..." when in actuality the first step should have been to meet with Nova Scotians presently using or accessing the proposed areas of interest. Had they done this, the Governments would have been apprised of all of the potential conflicts that could arise from wind farm installation.

The Government also makes mention of "Wind West Atlantic Energy" and "...an even more ambitious call for bids". One can only assume that this is referring to the Premier's public announcement that the Provincial Government, under his leadership, has a goal of 60 GW of wind energy.

The proposed wind turbines require approximately 200 square kilometres to generate each gigawatt. At 60 gigawatts that is 12,000 square kilometers. Each turbine has an estimated lifespan of 20 years or less. The project will have a massive physical footprint, with far-reaching environmental impacts.
Within a couple of generations, we could see up to 36,000 square kilometres, and growing, of ocean space taken over by wind farms and unusable for any other industry as there is no plan for structure removal. Not to mention the environmental damage done during the installation process. What the Government avoids mentioning, at least in public, is the mission creep of wind farms: the need to continue to expand the farms as units expire.
The letter makes mention of "inclusive engagement" but this has not been borne out by the Government's efforts to-date.
What is not mentioned in this letter is the need for respect for industry and commercial uses that have been an economic backbone for local and Provincial economies and the importance of maintaining them for the long-term benefit of the economy.
The information available and timelines set out by all levels of government and CNSOER do not facilitate meaningful engagement. In order for any groups to participate and make informed decisions and recommendations within the consultation period, more information regarding anticipated environmental and socioeconomic impacts is necessary. There is also a need for more detailed information for all phases of the proposed projects; this includes defined areas of interest within the larger areas indicated, detailed development plans and timelines of potential negative impacts on other industries and communities. Adequate time must be afforded for critical assessment once real information is provided.

**Attach your comments here -
Microsoft Word or Adobe PDF.**

Nova Scotia Offshore Wind Development
Integrated Regional Compensation Framework

Introduction

This master framework provides a structured, transparent, and comprehensive approach for evaluating, and compensating economic and community impacts arising from offshore wind development in Nova Scotia. This approach is intended to apply only after all efforts of "co-existence" have been exhausted through a combination of indirect and direct negotiations among all affected parties. It integrates sector-specific compensation pathways into five distinct categories:

1. License-Based Harvesting
2. Indigenous Commercial and Rights-Based Harvesting
3. Marine Users (Non-Fishing License Holders)
4. Shore-Based Dependent Businesses (e.g., processing plants)
5. Community Losses

These categories ensure equitable, sector-appropriate mechanisms for compensating for direct, indirect, and cumulative negative impacts to Nova Scotia's coastal economy.

1. Guiding Principles

- **Compensation to be a Condition of License for OSW Developers**.
- **Fairness & Transparency**: Open criteria, clear formulas, public governance.
- **Evidence-Based Decisions**: Claims grounded in verifiable data.
- **Independent Administration**: Neutral third-party claims processing.
- **Respect for Indigenous Rights & Treaties**.
- **Long-Term Accountability**: Compensation persists as long as impacts persist.

2. Compensation Categories

2.1 License-Based Harvesting (Non-Indigenous Commercial Fisheries)

This category applies to commercial fish harvesters operating under non-Indigenous licences issued by NSDFA and DFO-Canada.

Eligible Impacts:
- Loss of access to fishing grounds.
- Increased steaming time or fuel usage.
- Gear loss or damage.
- Impacts to moorings or water conditions.
- Reduced catch or stock displacement.
- Temporary or long-term business interruption.

DRAFT

- License value loss

Compensation Mechanisms:
- Lost revenue based on verified historical landings.
- Reimbursement of increased operational expenses.
- Gear replacement or repair.
- Long-term displacement compensation where impacts persist.
- Reimbursement for license value loss

2.2 Indigenous Commercial and Rights-Based Harvesting

This category recognizes constitutionally protected Indigenous harvesting rights, covering both rights-based and communal commercial fisheries.

Eligible Impacts:
- Interruption of treaty-protected marine access.
- Effects on culturally significant species.
- Disruption of Indigenous-run commercial fisheries.
- Loss of traditional harvesting areas.
- Cultural and non-market losses not captured by financial metrics.

Compensation Mechanisms:
- Commercial compensation for economic impacts.
- Indigenous-defined Community Benefit Agreements.
- Indigenous-led monitoring, habitat protection, and stewardship programs.
- Cultural compensation approaches defined by affected Nations.

2.3 Marine Users (Non-Fishing License Holders)

This category includes all marine-dependent users who do not hold commercial fishing licences.

Examples of Marine Users:
- Marine tourism operators.
- Shipping, tug, and barge services.
- Marine construction and offshore service companies.
- Recreational marine organizations.
- Port-dependent coastal businesses.

Eligible Impacts:
- Navigation disruption.
- Reduced customer access (tourism).
- Rerouting, delays, or operational inefficiencies.

DRAFT

- Infrastructure damage.

Compensation Mechanisms
- Lost revenue verified through production or customer data.
- Reimbursement of increased costs.
- Physical infrastructure damage claims.
- Transitional business interruption support.

2.4 Shore-Based Dependent Businesses (e.g., Fish Processing Plants, License Owners)

This category includes land-based businesses whose operations rely on consistent supply from fishing or marine harvesting sectors impacted by offshore wind development. These businesses often experience secondary economic disruption when access to resources is restricted offshore.

Examples Include:
- Fish processing plants (groundfish, pelagic, shellfish, sea cucumber, etc.)
- Live holding facilities
- Bait suppliers and bait-freezer operators
- Ice plants and cold storage facilities
- Transport and logistics providers tied to harvest volume
- Marine-dependent manufacturing or value-added processors

Eligible Impacts:
- Reduced raw material supply volume due to decreased landings.
- Production slowdowns or stoppages.
- Increased cost of sourcing product from more distant suppliers.
- Contract losses due to inability to meet buyer demand.
- Workforce impacts (layoffs, reduced shifts) connected to wind-related disruption.
- License value loss

Compensation Mechanisms:
- Lost revenue based on production reduction.
- Reimbursement for increased procurement costs (transportation, sourcing).
- Compensation for unfulfilled supply contracts.
- Support for labour retention during downturns.
- Capital investment support if facility adjustments are required.
- Reimbursement for license value loss

2.5 Community Losses

This category captures social, municipal, cultural, and public-interest impacts affecting entire communities.

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Examples of Community-Level Impacts:
- Reduced access to public coastline or harbours.
- Traffic and transportation disruption.
- Housing pressure from project workforce.
- Visual impacts affecting tourism.
- Strain on emergency or municipal services.

Community Compensation Tools:
- Community Infrastructure Funds.
- Tourism mitigation and marketing initiatives.
- Municipal service support programs.
- Coastal access improvements.
- Workforce housing investment.

3. Required Documentation Across All Categories

- Baseline financial data (2–5 years).
- Proof of operational footprint.
- Production, sales, or customer records.
- Evidence of impact such as logs, photos, incident reports.
- Verification of increased costs.

Alternative verification available for informal or small operators.

4. Compensation Fund Structure

A Regional Business Impact Compensation Fund (RBICF) will be established and funded by offshore wind developers. Governance will include provincial representatives, municipalities, Indigenous leadership, business sector delegates, and non-voting offshore wind observers. An independent third-party administrator will manage all claims.

5. Claims Process

1. Pre-Impact Registration (Failure to do so does not automatically disqualify a claimant)
2. Impact Occurrence
3. Claim Submission
4. Verification & Assessment
5. Compensation Decision
6. Appeals Process

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6. Long-Term Monitoring & Adaptation

- Annual formula review.
- Five-year cumulative impact assessment.
- Adjusted developer contributions based on evolving impacts.
- Public reporting for transparency.

7. Ethical & Social Licence Requirements

Compensation must support—not replace—proper consultation, coexistence planning, and Indigenous rights. Engagement must be early, ongoing, inclusive,.

8. Governance Structure

Independent Compensation Board including:

• Fisher representatives

• Indigenous leadership

• Marine economists

• Government observers

• Developers (non-voting)

Responsibilities will include validating formulas, reviewing claims, ensuring timely payment, and publishing reports.

10. Additional Safety Measures

• Mandatory decommissioning bonds

• Insurance-backed environmental guarantees

• Seasonal construction windows

• Marine Traffic Management Plan co-designed with industry

11. Transferability and Survival of Compensation Obligations

In the event that the Wind Farm Operator ("Assignor") elects to transfer, delegate, assign, sublet or convey to any other person, firm or corporation ("Assignee") all or any of the property, powers, rights and interests obtained by or conferred upon it by this Lease/License the Assignor and the Assignee shall be ***jointly and severally***

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liable *for all of the Assignor's original obligations with respect to compensation*. The Assignor shall have an enduring responsibility to indemnify third parties for any failure on the part of the Assignee to perform the compensation obligations required by the Lease/License and applicable legislation.*

Notwithstanding anything herein contained, any compensation liabilities or obligations of the Wind Farm Operator which arise under this Lease/License and applicable legislation which accrue prior to any partial or complete expiry, surrender, reversion or termination of the Lease/License* ***shall survive*** *such expiry, surrender, reversion or termination.*

*Note: the term "compensation" remains to be defined.

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APPENDIX A: COMPENSATION FORMULAS

A. Compensation Components

i. Direct Economic Loss, Immediate

Direct Loss = $\Sigma_{s,t}$ (Forecasted Gross Revenue$_{f,s}$ – Actual Gross Revenue$_{f,s}$) × (t / 365) × N

where the direct loss is computed over a given period in days t (a month or a season, for example) for a given entity f; the summation runs over all species routinely/historically fished or processed by a specific entity (based on prior documentation) in a comparable period to t, with each species denoted s;

Forecasted Gross Revenue$_{f,s}$ = Annual Forecasted Gross Revenue$_s$ × λ_f

forecasted gross revenue for a specific entity f with respect to a given species s is the annual per-species forecasted gross revenue for the area, multiplied by a fisher-specific scaling factor λ_f over a recent period, e.g. the last 3-5 years;

λ_f = Entity's Average Historical Revenue / Area's Average Total Historical Revenue

annual forecasted gross revenue for a species s is based on a sufficient data set of catches and values in the area using a damped-trend exponential smoothing model; and N is a normalization/scaling constant that can be used to address issues with respect to prorating compensation (for example, a graduated phase-out over time or a proration based on inadequate historical data).

ii. Extraordinary Costs Resulting from Displacement or Disruption

This compensation category addresses unavoidable and extraordinary fixed and indirect operating costs incurred by affected businesses as a result of offshore wind development related to disruption, displacement, or inefficiencies related to the avoidance and exclusion from wind farm areas. These costs persist even when production or revenue is unaffected or reduced and are not fully captured through Direct Economic Loss calculations alone.

Extraordinary Compensation$_{f,t}$ = Σ_c (Expected Cost$_{t,c}$ – Actual Cost$_{t,c}$) × λ_c

where the extraordinary compensation for a given period t and given entity f is computed by a summation of scaled differences running over all relevant costs c; an expected cost for a period t is based on a forecast that makes sense for the given cost and scaled for the time period t, e.g. a recent-period weighted average, the most recent price, etc; and λ_c is a scaling factor specific to the given cost.

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Covers additional fuel consumption, insurance, licensing, maintenance & minimum upkeep, lease/berth fees, labour retention, and more. For "Marine-Users, non fishing", in addition to the above, this also covers things like labour costs for additional time at sea, etc.

iii. **Future Earnings Loss (NPV Model)**

Future Loss = Σ [(Annual Lost Revenue + Annual Lost Profit Growth) ÷ (1 + Discount Rate)^t]

Use 8 years and 2% discount rate.

iv. **Intergenerational & Community Impact Fund**

Recommend 2–3% of total project CAPEX dedicated to community and fisheries support.

v. **Gear Damage & Navigation Hazard Compensation**

Rapid-pay (30 days) system for gear loss, vessel damage or costs incurred navigating around potential hazards caused by offshore wind development

Gear Damage/Loss Compensation = [(the lesser of replacement cost or prompt repair to a comparable pre-damage state) – (insurance payment)] × (scaling factors)

where the scaling factors could be used to include depreciation, to adjust compensation for partial loss of useful life, to reduce compensation for damage to short-lived assets, and/or to adjust compensation for partial payments in cases of mixed culpability.

vi. **Cultural & Treaty Rights Compensation**

Dedicated funding of $500,000–$2M per project for Indigenous access impacts.

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vii. **Displacement Premium**

Disruption ×1.1
Partial Displacement ×1.5
Full Displacement ×2.0–3.0

* Full Compensation Formula*

Total Compensation =

Direct Economic Loss

+ *Extraordinary Costs*

+ *Future Earnings Loss (20-year NPV)*

+ *Community Impact Fund Contribution*

+ *Gear Damage & Navigation Costs*

+ *Indigenous Treaty Impact Compensation*

+ *Displacement Premium (TBD)*

B. Tangible Asset Compensation

1. Full Replacement Cost (FRC) Formula

Use when the asset is fully destroyed or cannot be repaired.

Formula:

Compensation = Replacement Cost (New) + Associated Costs – Insurance Payout

Where:

- **Replacement Cost (New)** = cost to purchase equivalent new asset
- **Associated Costs** may include:
    - Installation
    - Programming/calibration
    - Shipping
    - Required certification/inspection
    - Lost operational time during replacement

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Example:

Asset: industrial fish net

- Replacement cost: $85,000
- Associated costs: $3,500
- Insurance payout: $20,000

Compensation = 85,000 + 3,500 – 20,000 = $68,500

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2. Repair Cost (RC) Formula

Use when asset can be repaired to original functional level.

Formula:

Compensation = Repair Cost + Associated Costs – Insurance Payout

Where:

- **Associated Costs** = transport, labour, downtime, calibration, etc.

Example:

- Repair cost: $12,000
- Associated costs: $1,800
- Insurance payout: $5,000

Compensation = 12,000 + 1,800 – 5,000 = $8,800

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3. Loss of Useful Life (LUL) Formula

Use when the asset is still functional but its lifespan has been shortened because of the impact (important for marine gear, processing equipment, pumps, motors).

Formula:

Compensation = Replacement Cost × (Remaining Useful Life Lost ÷ Total Useful Life)

Where:

- **Remaining Useful Life Lost** = years of lifespan reduced due to damage

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- This does **not** include cosmetic damage—only functional impact.

Example:

A conveyor motor is damaged during turbine cable-lay operations. It still works but lifespan drops by **3 years**.

- Replacement cost: $18,000
- Total useful life: 12 years
- Remaining useful life lost: 3 years

Compensation = 18,000 × (3 ÷ 12) = $4,500

---

4. Business Interruption Add-On for Tangible Asset Loss

If the loss of the asset prevents production or operations, add a downtime compensation formula.

Formula:

Downtime Compensation = (Average Daily Production/Procurement × Days of Interruption) – Avoided Costs + Standby Costs

Where avoided costs = labour not used, utilities not used, etc.

Where standby costs = paying labour to maintain ones workforce, etc

This can be added to any tangible asset loss formula.

C. License Capital Value Loss Formulas

1. Market Value Loss Formula

Use this where licences/quotas have a **known market price** (buy/sell, broker data, recent transactions).

Variables

- $\mathbf{V_0}$ = Baseline market value of the licence *before* January 2025
- $\mathbf{V_1}$ = Market value of the licence *after* offshore wind impact (or best estimate)

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- **A** = Attribution factor (0–1) = proportion of the loss clearly attributable to offshore wind
    - 1.0 = loss entirely due to wind farm
    - 0.5 = only half the loss can reasonably be tied to wind farm effects

Formula

Compensation = $(V_0 - V_1) \times A$

If the licence is considered **effectively worthless** (full loss):

- $V_1 \approx 0 \rightarrow$ **Compensation ≈ $V_0 \times A$**

---

2. Earnings / Net Present Value (NPV) Loss Formula

Use this where you want to base compensation on **future earning capacity** of the licence, not just current trading price.

Variables

- **π_0** = Expected average *annual net profit* from the licence without wind farm (baseline)
- **π_1** = Expected average *annual net profit* with wind farm in place
- **$\Delta\pi = \pi_0 - \pi_1$** = annual loss of profit attributable to offshore wind
- **T** = Time horizon in years (e.g. 20 years, or remaining expected useful life)
- **r** = Discount rate (e.g. 3–6% in real terms)

Formula

Compensation = $\Sigma_{t=1}^{T} (\Delta\pi / (1 + r)^t)$

In words: *the present value of all future profit lost because of the wind farm.*

If you want a simpler approximation when Δπ is expected to be fairly stable:

Compensation ≈ $\Delta\pi \times [1-(1 + r)^{-T} / r]$

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3. Partial Loss Due to Loss of Grounds (Percentage Method)

Sometimes only part of the licence's value is lost (e.g. 30% of the grounds made inaccessible or uneconomic).

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Define:

- **L** = Proportion of commercial value lost due to displacement (0–1).
    - Example: if ~40% of the historically fished grounds are effectively lost, L = 0.4

Then, for a **market-based shortcut**:

Compensation = $V_0 \times L \times A$

Where A again is the attribution factor (if you want it separate from L you can, or just roll it into L).

You can also apply L to earnings:

$\Delta\pi \approx \pi_0 \times L$
then plug Δπ into the NPV formula above.

---

4. Recommended Policy Formula

To be fair and robust, you can specify that compensation for **licence value loss** is the **greater of**:

1. **Market Value Loss**

$C_1 = (V_0 - V_1) \times A$

2. **NPV of Lost Earnings**

$C_2 = \Sigma_{t=1}^{T} (\Delta\pi / (1 + r)^t)$

Then define:

Final Compensation for Licence Value Loss = max(C_1, C_2)

You can also write this in policy language like:

"Compensation for permanent or long-term loss of commercial licence value shall be calculated as the greater of (a) the verified loss in market value of the licence attributable to offshore wind development, and (b) the net present value of projected future profit reductions attributable to offshore wind development, using an agreed discount rate and time horizon."

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Wind Energy

Premier Tim Houston
Honorable Tim Hodgson
Minister of Energy National Resources
Honorable Minister of Fisheries and Oceans Joanne Thompson
NS Minister of Fisheries and Aquaculture Kent Smith
Dena Murphy CNSOER
DFO Janet Langille
DFO Tanya Abraham
ENS Area Manager Raie Leith
MLA Victoria- The Lakes Diane Timmons
Minister of Public Works
Fred Tilley
DFO Science Dr. Jae Choi
Senior Director of NRC Abigail Lixfeld

Area #22 Offshore President Neil P. MacMullin
January 6, 2026

We would like to bring forth our concerns regarding wind energy in Sydney Bight and provide clarity between snow crab zones within the Department of Fisheries Maritimes Region. Our primary concern is designation of Sydney Bight as an area for wind energy and the impact regarding mortality and loss of fishing grounds throughout the course of construction phase and following completion of the project.

Circling back to my opening statement Northeast Nova Scotia or Area #22 is in Sydney Bight directly in the path of the proposed wind energy project. The additional three sights are situated in Southeast Nova Scotia or Area #23 and #24. NENS spans from Cape North to Scattarie (Main-a- Deu) while SENS borders Scatterie and stretches south to Sambro (Halifax). To assist government officials Area #22 will layout a brief nonbiased historical account of the facts.

Crab fishing areas (CFAs) were established during the early 1970s in the Maritimes Region. Boundary lines separating NENS and SENS were imposed arbitrarily in the shape of landmarks. During this period there was no scientific data to accurately evaluate snow crab population in the Maritimes Region. Scientific snow crab surveys were conducted in 1997 and annually resulting in reliable science-based data for managers and fishermen that was not available when CFAs were set in the early 1970s.

Dividing areas with landmarks resulted in 72 licenses in NENS and 43 licenses in SENS. In the late 1990s Indigenous participation was encouraged in areas #23 and #24 in the crab fishery. DFO managers restructured in 2005 and granted access to all core fishermen to combine lesser quotas and form companies. They raised licences from 72 to 78 in Area #22. A poor decision with NENS previously and currently facing a huge overcapacity problem and limited fishing grounds. Area #22 required a significant fleet reduction not an increase in license holders.

In contrast to SENS which possess unlimited snow crab habitat our Area #22 has only two mud holes forced to support 78 license holders. For 50 years we encountered over capacity, congestion, shrinking habitat, loss of recruitment due to predators and lowest quotas for traditional snow crab license holders in the world. For comparison over the last 20 years SENS highest quota 262 000 lbs. lowest quota 88 000 lbs. Area #22 highest quota 27 000 lbs. Lowest quota 6200 lbs. Discrepancies in quota shares are also significantly higher at our Northern border in the Southern Gulf Area #12 #18 and #19 expanding to New Brunswick and PEI.

Overfishing has not created this problem in Area #22 it's been apparent since the early 1970s when zones were established. The dominant fact remains " we do not set the total allowable catch" we may debate, participate but in the end, TAC is decided by DFO management with advice from science trawl survey results along with additional science and fishery information leading to a rigorous scientific peer review process.

Further uneasiness exists with potential harm to the lobster fishery on both sides of Sydney harbor and adjacent ports such as Lingan Glace Bay Alder Point etc. Also, scallop fishing on the red grounds Lingan and Bird Islands is a matter deserving attention. Sydney Bight is not only utilized by fishers but also a gateway used by Marine Atlantic numerous times per day to transport good and services to the island of Newfoundland.
How ever, I will continue my focus on Area #22 Snow crab out of Sydney Bight.

Defining St Anns Bank as a Marine protected area subjected NENS to a substantial loss of fishing grounds. Despite the loss of grounds NENS continued to partner with DFO and Ocean tracking network in attempts to collect scientific data which began in 2015 on St. Anns . The operation begins with a 10-hour steam to the first of 46 receivers which span 28 miles and back home to port of North Sydney which usually consists of 48 hours. NENS crab fishermen totally fund the project, along with Captain and crew carry DFO and Ocean tracking network personnel to conduct all technical expertise. The fleet is committed to continue funding survey for 2026 season.

Another disturbing component is the Wind Energy boards minimal or absolutely no communication with DFO science or Management. Regarding this project our definition of DFO are those individuals on the ground and in the trenches with Area #$22. throughout multiple seasons. Those civil servants could paint a broad picture of difficulties encountered by the 78 license holders harvesting in such a limited snow crab habit.

Currently with respect to the international precautionary approach which dictates harvesting control rules NENS presently falls in the cautious zone. Facing congestion with only two fishing holes for 78 boats and significantly lower snow crab quotas in comparison to other snow crab license holders. Weighing the current challenges that are confronting our fishery we truly believe it is impossible for coexistence between the fishermen and wind energy in Sydney Bight. Unforeseen mortality to an already fragile fishery could cause irreputable damage to the resource.

For reasons outlined previously the license holders of Area #22 are appealing to the Govt of Canada and to the province of NS to remove Sydney Bight as a designated area for the Wind Energy Project. We appreciate your time and feel confident you will prioritize our concerns before resuming with this project.

Best regards,

Neil P Macmullin
Area #22 Offshore. NENS
902 565 5913

Neil MacMullin

Seafood Producers Association of Nova Scotia
Association des Producteurs de Fruits de Mer de la Nouvelle Ecosse

Please accept the following comments on behalf of SPANS in response to your call for information for NS25-1R. SPANS represents harvesters and seafood processors who have fishing interests on Middle Bank and adjoining banks. These comments will focus in particular on the impacts of wind energy development on the offshore scallop fleet.

The Regulator should provide further particulars of parcels and easements

It is difficult to provide input in this process without knowing particulars about the proposed parcels, such as:

- The general location of individual parcels on Middle Bank, including substrate and depths;
- The location of different parcels on Middle Bank in relation to each other and in relation to parcels on French Bank;
- The location and size of easements for transmission;
- The technology to be used in each parcel (as Middle Bank apparently is available for both floating and fixed turbines);
- The regulations that will apply to developments; and
- The policies that will apply to site planning, co-existence, mitigation and compensation.

The Accord Acts clearly state that importance should be given to fishing activities in the submerged land licensing process, but without knowing more information about the above, we can only be general in our feedback about what is of importance to the offshore scallop fishery. To this end, we request an opportunity to provide further information when the Regulator has more information on its plans for the call for bids.

When selecting parcels for licensing, it is of importance to the offshore scallop fleet that the Regulator consider landings, habitat and life history studies.

- The Regulator should consider historic scallops landings on Middle Bank from the DFO Marine Planning Atlas when designing parcels.
- The Regulator should consider overall impacts to scallop habitat on Middle Bank when designing parcels, which include substrate type and depths. The Regulator should set limits on interference/loss of expected scallop habitats when designing parcels, taking into account scallop biology and connectivity to other parts of the bank and Eastern Scotian Shelf.
- To this end, scientific study has shown that areas of Middle Bank may act as a source of scallop larvae for other parts of the Eastern Scotian Shelf, that scallops on the Eastern Scotian Shelf have very weak, if any, connectivity to other scallop populations in other areas and the impact of wind

energy development over the Eastern Scotian Shelf should be taken into account when considering importance to fisheries in the submerged land licence process.[1]

- The Regulator should take into account the entirety of the fishing strategy of the offshore scallop fleet when determining what area or areas are of importance to that fleet.

The Regulator should take control sites into consideration when selecting parcels

Co-existence, mitigation and compensation are of importance to the offshore scallop fleet. The best way to ascertain impacts from wind energy development is to properly monitor the ocean and fish stocks for changes arising from development. A key element in doing so (and attributing causation for impacts) is by establishing control areas on Middle Bank and doing so would follow precedent in other jurisdictions (see the Vineyard Wind site in the United States). For the offshore scallop fleet, it is expected that control sites would take into account historical or expected scallop habitat and monitor those sites for changes in relation to scallop habitat that may fall within developed areas.

However, it is difficult to select control sites without more certainty in the regulatory and policy environment. For example, the selection of control sites should follow the types of mitigation and compensation policies that are in place (for instance, what are the indirect impacts that will be monitored giving rise to mitigation or compensation requirements). But the Regulator is seeking input on the design of sites (and hence may limit where control sites may or may not occur) before having mitigation and compensation policies completed. For this reason, we feel that it is premature to make parcel decisions before knowing better what monitoring, mitigation and compensation requirements will be in place.

This is especially pertinent given that there are already multiple developments being considered for Middle Bank and that Middle Bank seems to serve as a source of scallop larvae across the Eastern Scotian Shelf. Without proper control sites, attributing direct and indirect losses to an individual parcel may be exceedingly difficult. We note as well that the technology to be used and the selection of transmission easements may also create impacts that require monitoring and hence consideration in the development of control sites.

The Regulator should include a scientific monitoring plan in its evaluation criteria

If the SLL will require some inclusion of a project plan, then we suggest that there also be a requirement for applicants to develop a scientific monitoring plan and the quality of this plan should form part of the evaluation criteria. Such a plan should include the proponent's plan for fish surveys, monitoring and reporting/dissemination of such information.

[1] Graeme Guy, Sameoto et al, "A network-theoretic approach for evaluating connectivity and statistically persistent community structure for marine spatial planning" Frontiers in Marine Science (2026): https://www.frontiersin.org/journals/marine-science/articles/10.3389/fmars.2025.1681544/full

The Regulator should require the establishment of WEA advisory committees as a requirement of co-existence plans

Given the regional nature of development proposed for Middle Bank (that is, 1GW spread over at least two SLLs) successful applicants should be obliged to participate in and report to an advisory committee established specifically for that WEA to provide updates on planning, compliance, monitoring and consultation on a regional basis. Such an advisory committee should be instrumental in further planning of the bank and providing further feedback to the Regulator and SLL holders.

The Regulator should clarify how co-existence and biodiversity plans will interact

If a goal of a biodiversity plan is to enhance biodiversity within an SLL, then it seems designed to change the species profile of that area. This could be damaging to existing users in the commercial fisheries if new and different species to the area are considered to be a positive attribute, and we require further particulars on how these plans might interact in the evaluation process before providing further information.

The Regulator should weigh impacts on commercial fisheries appropriately depending on the location of the parcel

Without knowing particulars of the parcels, technology, easements, etc, it is difficult to provide feedback on criteria weighting and scoring metrics. Suffice it to say, the greater initial impact on existing fisheries interests, then the Regulator should place more weight on coexistence plans and other environmental monitoring requirements when evaluating bids.

The Regulator should create a process for allowing third party assessment of co-existence plans insofar as they impact the fisheries

We have concerns about how impacts to fisheries will be evaluated during the SLL process and are troubled by the lack of particulars provided in the call for information. The evaluation of impacts should consider direct and indirect impacts and should be undertaken in the context of each impacted fishery. For scallops, this would include the connectivity and sources of scallop larvae and populations and would take into account general fishing strategies employed by the fleet. Given the lack of particulars at this time, we would suggest allowing for third party based evaluation or input on co-existence plans, perhaps by WEA advisory committees if those are established.

Proposed fees for SLLs should be inclusive of costs of compensation

We note that other jurisdictions require the establishment of a Fisheries Compensatory Mitigation Fund as part of the bidding and land tenure process.[2] Again, we are concerned that SLLs are being considered before the regulatory and policy environment have been established and assert that a plan for calculating compensation is an essential part of the SLL process. Failing to account for the details of mitigation and compensation (and planning for the amounts within the SLL) diminishes the importance of the commercial fisheries in the SLL process. This is especially so for Middle Bank, where multiple developments may make it difficult to determine causation for impacts and therefore creates a stronger case for a reserve fund for compensation that all developers should contribute to.

We also note that there does not seem to be any consideration of earmarking fees for mitigating impacts to fisheries survey designs. DFO surveying and stock assessment capacity is already stretched thin and industry, which through collaborative agreements with DFO plays a formal role in the surveying and assessment process, is also short of funds. Yet updating survey and assessment design is crucial to understanding the broader impact of wind energy development and these additional expenses should be supported through the SLL process. We understand that other jurisdictions (such as the USA) require certain amounts of fees to be used to offset increased costs for fisheries science and this consideration should be built into the fee structure for an SLL, either at the outset or through its terms and conditions.

Communities may be impacted disproportionately

Socio-economic impacts from wind energy may vary among communities. For example, many of the communities that enjoy the benefits of offshore scallop harvesting are located the Tri-County area of Nova Scotia. It would be valuable to keep this consideration in mind when developing community benefits plans.

Terms and conditions should address reflect matters of importance to the fisheries

The terms and conditions of an SLL should

- Incorporate mitigation and compensation policies by reference
    - These policies should include both direct and indirect impacts to fisheries and should include impacts outside of the WEAs/Parcels in question if applicable and, for sessile benthic species, consideration of loss of net present value of scallop habitats
    - For Middle Bank and other areas with multiple developments, the policies/terms and conditions should not restricted compensation solely because attribution to one developer or another is difficult to ascertain.
- Set out communication and planning obligations and should include a requirement to liaise with fishers and representatives on regular and timely intervals. These obligations should include

[2] See for example US Renewable Energy Lease Number OCS-A 0564: https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/GoME%20Lease_0564.pdf

reference to any WEA advisory committees to ensure that stakeholders have a forum for raising concerns with adherence to such commitments.

- Set out requirements to share pertinent scientific monitoring/surveying of the parcels and the WEA with fishers
- Require proactive disclosure of applications for authorizations and plans for impact assessment pursuant to such applications.
- Require notice of new or ongoing scientific monitoring/surveying that may interfere with fishing interests and consult with fishers to best plan such monitoring/surveying.
- Require a minimum amount of scientific monitoring/surveying before an application for an authorization may be made.
- Set out requirements for scientific integrity of any monitoring/surveying plans and requirements for participation by fisheries scientists in reviewing the results/interpretation of the results of any monitoring/surveying.
- The calculation of fees within the terms and conditions of an SLL should also specify the amounts that will be applied to offset costs for increased demands on fisheries science, either through DFO or third parties operating by agreement with DFO.

Participant Funding Programs should be well funded and provided sufficiently far in advance to prepare for further participation in submerged land licensing processes

Conclusion

In sum, it is difficult to provide information on what is of importance to the fisheries without better understanding in precise terms the location and nature of the proposed SLLs and the regulatory/policy regimes in which those SLLs will be issued.

That said, the following can be stated at this time: it is of importance to SPANS members that the Regulator select suitable sites for development that do not interfere with limited scallop habitat. It is furthermore important that the Regulator select parcels that will not interfere with the connectivity of scallop populations on the Eastern Scotian Shelf. The Regulator should select control sites that are capable of meaningfully monitoring impacts to scallops arising from development, and these control sites should either be incorporated in the SLL process or reserved from inclusion in SLLs generally. Within control sites it is imperative that effective monitoring plans be developed and the results should be shared in a transparent manner. The Regulator should also develop a fee structure that supports necessary changes to fisheries science so that impacts beyond the confines of control areas or parcels can be fully understood. Finally, transparency, clear communication and cooperation (among other things) should be incorporated into the terms and conditions of an SLL.

We feel that the details of the SLL issuance process will come into clearer focus following this exercise and encourage the Regulator, in fulfilling the requirements of 98.7 and 102F of the Accord Acts, to undertake further consultation with SPANS and other fisheries stakeholders in respect of its plans for Middle Bank.

Ian McIsaac - President
Seafood Producers Association of Nova Scotia

The CNSOER welcomes your suggestions and feedback on the government identified Wind Energy Areas (Sydney Bight, Middle Bank, and French Bank) and the factors the CNSOER will use to design parcels within those Wind Energy Areas.

It is important to begin with the general acceptance that all wind energy areas are being used by multiple sectors in the fishery, although there are clearly areas of higher and lower usage. Because of this overlap of activity, developers and the Regulator should anticipate that impacts on the fish and seafood sector are guaranteed. No development should be undertaken at the expense of existing users.

Additionally, it should be noted that there are many scientific surveys that have survey sites throughout the proposed wind energy areas, including both those led directly by the Regulator and those funded and executed collaboratively and independently by the fishing industry. These survey sites are often randomly placed, making it impossible to propose parcels that will not interact with their fulsome execution. Assessments by the Regulator and experience from other jurisdictions undergoing offshore wind development have demonstrated that excluding those surveys from areas of the marine environment increase uncertainty in stock assessment and can challenge long-standing time series used for robust stock assessment and determination of total allowable catches. We encourage that the Regulator be strongly engaged on the possible impacts of any parcel selection on these long-standing surveys, including how future surveys and assessments can be supported.

In reviewing the fishery footprint information available, there are severe gaps in the information. Direct discussions with the harvesting sector have demonstrated significant shortcomings in our shared understanding of the fishing footprints of the small vessel fleet, pelagic gears and historically important fishing areas. Prior to selecting parcels for potential development, we encourage strong consideration as to the potential impacts of development on the marine environment and fishing activity in areas adjacent/near to the parcels being considered in addition to the areas within the parcels themselves. This is especially important as impacts to these neighbouring areas directly will also impact the ability to deliver on the principle of the Accord act which requires due consideration of the effects on fishing activities.

For example, simply by taking a parcel of a wind energy area and the resultant exclusion of the harvesting sector, harvesters will shift to a neighbouring area, directly impacting the activities of those existing harvesters in neighbouring areas and those displaced to those areas.

We are concerned that robust marine spatial planning required to help guide effective selection of parcels is incomplete because of an absence of robust information on important pieces that underpin the determination of the balance between resource users. For example, the real fishing footprint is underrepresented by available information and geotechnical information key to appropriately planning locations for possible development are not

available. Spatial decisions without a full spectrum of information available to support those decisions risks creating conflicts with other spatially restrictive initiatives such as marine conservation, shipping lanes, fishery regulations, other resource users and harvesting activities.

When a parcel is considered for selection, due consideration must also be given to the identification of an appropriate reference/control site to support future monitoring programs. Efforts must be taken at the selection stage to ensure control sites are identified early and available for required monitoring efforts.

The NSFAEE has provided the CNSOER with our assessment of harvesting activities within each WEA. We ask that this previous submission be considered by the CNSOER when seeking to de-conflict the establishment of future parcels and fishing activity. Additionally, we provide the following general description of harvesting activities below, but note that this list is incomplete and does not consider the importance of these areas to contributing to the overall fishery resources:

French Bank:

- Extensive activity for halibut (fixed-gear longline), large pelagics (pelagic longline, rod and reel), snow crab (single traps), lobster (varied configurations), sea cucumber (mobile gear), small pelagics (gillnet and jig) and groundfish (mobile gear).
- Historical activity for a variety of species and gear types.

Middle Bank:

- Extensive activity for halibut (fixed-gear longline), large pelagics (pelagic longline, rod and reel), snow crab (single traps), sea cucumber (mobile gear), groundfish (mobile gear) and scallop (mobile gear).
- Historical activity for a variety of species and gear types, including herring (mobile gear).

Sydney Bight:

- Extensive activity for halibut (fixed-gear longline) and snow crab (single traps). Proximal to very important areas for mobile gear groundfish.

The CNSOER welcomes your suggestions and feedback on bid submission criteria to be used as part of the Call for Bids process, including specific criteria, criteria weighting, scoring metrics, and evaluation methods.

We would like to thank the CNSOER for presenting an initial list of evaluation criteria to be considered as part of the offshore call for bids process. Beyond those identified, we would recommend that the following be included:

Engagement History with All Stakeholders: Successful proponents will be required to engage with a large stakeholder community, including a fish and seafood sector that stands to be profoundly impacted by development. For this reason, understanding the engagement history of proponents with stakeholders (especially the fishing industry) is important to determine if they are 'prepared' to engage with stakeholders in a productive and collaborative fashion. History from other jurisdictions has demonstrated that stakeholder engagement is well practiced by some developers and not others.

Previous Success with Co-existence Relationships: Similar to the above, it is important for developers to demonstrate what they consider to be their successes and shortfalls in co-existence relationships in past projects with impacted stakeholders. A simple reference check with impacted groups in other jurisdictions will support a determination if a developer is the right fit for the Nova Scotia offshore. This should include a brief history of their experience and success in mitigation, monitoring and adaptive management that supports those positive co-existence relationships.

This review should also include an understanding of what the developer considers to be a successful 'coexistence' relationship as this definition has varied substantially across other global developments.

Evidence-Based Coexistence Plan: We encourage the CNSOER to require an evidence-based plan on how a particular developer intends to pursue and achieve co-existence. This includes a clear understanding of how the stakeholders may potentially be impacted by their development, how they intend to determine, avoid and mitigate impacts. Evaluation must include a demonstration of financial ability to deliver on those commitments for co-existence via provision of securities prior to undertaking any project activities.

Inclusion of Fisheries in the Biodiversity Plan: When undertaking the evaluation of any biodiversity plan, we encourage the review to include an understanding of how their proposed plan will dovetail with an assessment of current and future fisheries productivity. This will require that the biodiversity plan not just include an ongoing evaluation of the status of the commercially important fish species in the area, but also includes monitoring of the ecosystem components that support those fish species. This is key to ensuring the principles of the Accord Act concerning fisheries are achieved.

Establishing a Minimum Threshold to Passing Evaluations: We note that this is the first of what may end up being regular call for

bid processes for the offshore area. For this reason, we encourage that the Regulator establish a baseline pass/fail threshold for each area of evaluation. Under no circumstances should the 'highest' score simply be allowed to 'pass', as there is a minimum level of professionalism and expertise that a developer must have to gainfully operate in the offshore waters of Nova Scotia. Establishing and communicating a minimum qualifying score for all evaluation criteria is key to ensuring a vibrant offshore wind industry.

Potential Weighting of Criteria:

It is difficult to comment on the weighting of criteria without a fulsome understanding of the proposed scoring process, however, we offer the following general principles to be considered.

Proponents with a history of building/operating projects should be generally scored higher than those without this experience. In many respects, the evaluation criteria will require an assessment of the history of the proponent, meaning that those without any operational history will be challenged to identify their intent with any degree of rigour.

We suggest a high weighting be provided on the evaluation and plan of coexistence with existing stakeholders (with a special focus on the fish and seafood sector), including the history of previous proponent interactions with stakeholders in other projects. More experience with stakeholders and more positive relationships with those stakeholders should surely lead to a higher score as this is a key component to the successful sharing of our marine space.

We also encourage a high weighting on environmental monitoring plans, with a special emphasis on those structures deemed to be sufficiently robust to inform delivery on the principles of the Act (i.e. impacts on fishing activities). Those with well-considered program designs (e.g. Before-After-Control Impact (BACI) program) should be scored higher than those with just notional concepts of monitoring.

Evaluation Methods:

We suggest that the evaluation approach should be highly structured and sufficiently transparent such that the public/stakeholders will be able to understand the performance of each proponent alongside areas where improvement should be pursued, all supporting the reasons why a developer has been accepted or rejected.

We also encourage that the evaluation must be undertaken in an objective and unbiased fashion, potentially by an independent third-party panel to remove any perceptions of bias. Underpinned by a clear and publicly available understanding of how applications may be scored, this will support the establishment of a civil licence for development supported by all Nova Scotians.

Evaluation of co-existence and stakeholder engagement should be supported by some external 'reference' check to validate the

positions being put forward by the developer. We suggest that fisheries related evaluation components should be subject to a greater focus than other pieces in the application process and be evaluated separately from other stakeholders (i.e. First Nations, communities, etc.).

The CNSOER welcomes your suggestions and feedback on coexistence.

It is important to understand the tiered priority approach desired by the fish and seafood sector. Our initial target is to avoid any conflict via good siting of developers outside of the fishing footprint. Where development and harvesting activities overlap, effective mitigation to allow the fishing activity to continue unabated is clearly a priority. Compensation is viewed as a last resort as the fish and seafood sector wishes to continue their traditional harvesting activities. A coexistence plan must include all three tiers of priorities to be considered complete.

The definition of coexistence will differ with each wind energy area because of different harvesting practices and sectors involved. We encourage the Regulator to consider striking unique stakeholder-driven coexistence advisory groups for each wind energy area that reflects these differences across the landscape.

Coexistence must consider the full range of impacts, including direct and indirect. Coexistence must include an acknowledgement there are impacts that are yet to be determined, meaning a structure to address those impacts must be considered.

Co-existence is not spatially restricted to only the parcel being developed. It extends beyond those boundaries. For instance, it could be effort relocation or large-scale ecosystem impacts. The spatial boundaries of co-existence must be acknowledged by all proponents.

Meaningful co-existence includes a sharing of environmental information, survey outcomes and monitoring information collected by the developers on an ongoing basis. Just as the harvesting sector is expected to share information on their activities in the wind energy areas, developers will also need to provide this level of transparency. This sharing should be clearly described by the coexistence plan.

Developers seeking to support coexistence must present clear commitments to Regulators for monitoring, reporting and for compliance to reporting obligations. All this data should be public.

An important lesson from other jurisdictions is the 'openness' of development areas for monitoring and research by outside researchers and agencies (including academia and DFO).

Coexistence also means that any lost access for research and stock assessments are mitigated as part of the authorization.

Coexistence with other users and the compounding nature of these accommodations must be considered. Any mitigation proposed for one ocean user will have knock-off effects. For example - a shipping industry that needs to redirect their routes leading to increased costs (fuel), will increase interactions with fishing gear (i.e. moving inside and ploughing under gear). Mitigating vessel traffic to other lanes will increase the overlap and conflicts. These downstream impacts must be considered as a part of coexistence.

Coexistence can take many forms. Preferential vessel contracts to existing users of the areas demonstrates a priority to support those that may be impacted and this should be outlined and rewarded in the coexistence plan. It must consider those impacts extending to the shore through considerations of competition for labor and port access.

The Regulator is encouraged to achieve a basic minimum structure of coexistence that all developers must adhere to. This will create a level playing field for both developers and stakeholders, irrespective of geographic location. This structure would include the roles and responsibility of each partner to the process (i.e. developer, harvesters, government) and would also include important aspects pertaining to timescale (i.e. co-existence is relevant until project site returned to natural state) and how cumulative impacts should be considered.

The CNSOER welcomes your suggestions and feedback on behalf of governments on considerations for fisheries' compensation.

We would like to thank the CNSOER for confirming that the "...continuance of existing activities of ocean users, including the commercial fishing and seafood sectors, are guiding principles for advancing offshore wind in Canada." This sentiment is echoed by the fish and seafood industry.

We encourage the Regulator to ensure that a clear compensation framework that identifies obligations and responsibilities be complete and in place prior to the issuance of seabed tenure. This is necessary to provide those impacted by development an understanding of how they will be treated by the compensation scheme and will also ensure all developers are aware of their obligations as they pertain to compensation.

We understand that the delivery of a compensation framework is incredibly complex and will require a unique approach to each sector impacted by development, especially as direct and indirect impacts are considered. Implementation will be guided by the much-anticipated framework being prepared by governments.

We suggest that the body responsible for delivery of compensation should be independent of developers, perhaps via an independent third party advised by the fish and seafood sector, developers and Regulators. Each wind energy area would likely need its own independent compensation committee for similar reasons that each wind energy area would also require its own coexistence committee as described above.

We encourage the development of a royalty funded reserve fund to support the delivery of compensation costs associated with unforeseen/cumulative effects. We note that these impacts are not yet 'known', making it very challenging to identify the level of security required to address those needs. The use of a royalty fund would allow refunds to be provided to developers/Regulators if developers were successful is establishing projects with few to no unanticipated impacts.

We have appended to this submission the framework principles for compensation as developed by the membership of the NSFAEE. We ask the Regulator to turn to this document for further guidance on the development and delivery of a compensation model.

The CNSOER welcomes your suggestions and feedback on the fees for bid submissions and successful bidders.	At minimum, we expect that the fees to be charged for the issuance of submerged land licenses would be commensurate with the costs incurred to the Canadian economy to manage those processes. For instance, operational costs of the Regulator and support costs of the various government departments to support offshore wind energy should be offset by the fees collected. In a similar vein, costs incurred by the seafood sector to engage in offshore wind development (as required to ensure their interests are addressed) should also be sufficiently offset by Regulator fees. It is also conceivable that fees collected from the land lease process could be allocated to support infrastructure investments required for offshore wind development (i.e. berthage or port development). We encourage the Regulator to align the fees with the expected cost such that developers are truly paying the cost of development and these costs are not being passed on to the Canadian public.

The CNSOER welcomes your suggestions and feedback on considerations and adherence to the principles listed in the Accord Acts.	It is important to first identify the full scope of 'fishing activities' that are included under the scope of the Principles of the Accord Acts. From our perspective, this is not only the act of harvesting, but also includes transit to/from the grounds, management of those resources, sustainability certifications, safety, whether those resources persist after the impacts of development are considered (via impacts to broodstock or greater ecosystem changes), etc. and can extend to the relationships between/within fleets and sectors that may become strained as displacement leads to new activity overlaps. In summary, understanding the impacts on fishing activity needs to consider both the direct and indirect impacts of development and the context in which the fishery occurs prior to development being undertaken. The principles in the Accord Acts are not limited in scope to strictly the footprint of a development or the boundaries of a wind energy area. Fisheries activities outside of the wind energy areas that rely on those resources/habitats/spawning contributions/ecosystem services supported by the relevant wind energy areas and the resource therein must also be considered. We view these responsibilities as operating synergistically with the Department of Fisheries legislated responsibilities to protect fish and fish habitats, perhaps via the individual assessments that we foresee as being required for all offshore wind projects. Delivering on the Accord principles is heavily challenged by a lack of background/baseline information, data gaps and a clear lack of understanding on the large-scale impacts of offshore wind on the marine ecosystem. There is a need to pro-actively design and implement monitoring programs to support the delivery of those principles. For example, how can the impacts on fishing activities be determined if there is a gap on exactly what and how fishing activities are being conducted? How can the resources that those activities rely on be well understood in the absence of a robust monitoring program prior to development to understand those landscape linkages supported by the marine resources within the selected parcels? Without these pieces, it is very challenging to understand how these principles will be successfully delivered upon.

The CNSOER welcomes your suggestions and feedback on possible considerations for community benefits programs related to offshore wind development.	The determination of benefits to communities will be challenging, especially as broad commitments are being made that do not necessarily align with real expected deliverables of offshore wind projects. While we are not in a position to validate or challenge claims made to economic activity or employment levels, we can offer some general advice on the assessment of those benefits. The definition of communities must be broad to include those near and far afield from developments. This includes both First Nation and non-First Nation communities and no community type should be prioritized over another. A valid determination of community benefits requires that a fulsome socioeconomic assessment be undertaken such that the benefits and costs can be fully described. Consideration of community benefits must also include consideration of community costs. For example, increased labour demand may also lead to associated social challenges (i.e. housing and substance abuse), which will act to offset benefits. Any assessment of benefits should include consideration of those mitigation approaches intended to blunt detrimental impacts to communities. We encourage the Regulator to partake in broad and early discussions with the Nova Scotia Federation of Municipalities to help identify key metrics and approaches needed to define the scope and extent of community benefits.

The CNSOER welcomes your suggestions and feedback on possible terms and conditions for the draft Submerged Land Licence.

We encourage a broad jurisdictional scan to help inform candidate terms and conditions that will be sufficiently robust to protect health, safety, the environment and the interests of existing stakeholders. Once this scan is complete, it will act as a basis for more meaningful discussion.

Based on our discussions with Regulators, we expect that there will be clear and concise language related to the following:

Timelines: Similar to petroleum, there must be a period after which any tenure lapses. This is important to ensure that tenure is provided with the intent of development. This will prevent speculation and support good stewardship.

Commitment for Compensation: Terms and conditions should include a clear requirement for developer obligations pertaining to compensation. This must include the spatial and temporal scope of compensation obligations.

Baseline Environmental Monitoring: Given that a developer will only bid on a parcel they intend to develop and the poor state of baseline information needed for effective mitigation, developers must be made aware of their obligation to support baseline environmental monitoring plans that are to the satisfaction of the Regulator. Furthermore, these monitoring plans should be activated within a short period (i.e. 6 months) of land tenure being granted and should be in place for the full duration of planning, construction, operation and decommissioning. Should this not be achieved, that will be reasonable grounds to strip tenure from a developer because of non-compliance.

Fisheries Baseline Assessment: Developers must be obligated to collect information on fishing activities in and near potential developments. This extends beyond identifying the species being targeted and must include identification of how fishing is occurring, technologies being used, seasonal usage, participation and the spatial footprint of those activities.

Exclusion Zone: Developers must be obligated to minimize the size and duration of exclusion zones where practical and be required to communicate the establishment of these areas to other marine users, including the fishing industry.

Cable Installation: Where authorizations include cable installation, conditions should include required target burial depths of cables to reduce fishing gear interaction. Requirements for use of cable installation methods that minimize seabed disturbance must be described. Approaches for cable protection measures that do not create hazardous seabed obstructions for bottom-contacting fishing gear should also be described.

Obligation to Fund Royalty Funded Environmental Effects Model: We believe that a royalty funded model to support accommodations linked to cumulative/unforeseen effects of offshore wind energy remains the only safe path to protect stakeholders and developers alike. We expect to see language obligating developers to financially support this model in the

terms and conditions.

Public Record of Stakeholder Discussions: Given that transparency will be an important component to social licence for offshore wind development, we encourage the Regulator to include in conditions a requirement for a public record of stakeholder engagements and commitments by the developer. In other jurisdictions, we have seen many of these conversations and commitments become 'hidden' by confidentiality, making it difficult to evaluate either the effectiveness of those measures or the comparability with other neighbouring projects.

Commitment to Removal/Restoration: Upon termination of a subsea land licence, the developer must be obligated to return the seabed to its natural, pre-construction condition. This includes removal of all infrastructure. We encourage that the Regulator collect securities from developers prior to construction (i.e. at land tenure stage) to ensure such activities are possible in the event of financial failure of the parent developer. We understand that the language proposed by the Regulator includes a 2-year maximum decommissioning and abandonment period but must note that while having a maximum timeline on decommissioning is useful to ensure it is not extended for prolonged periods of time, it should not preclude the time needed to bring the environment back to its natural state which may require a window beyond the 2-year period.

Commitment to Adhere to Prescribed Activity Restrictions: Any work being undertaken in the marine environment must bear in mind sensitive periods for fish and fish habitat. There is growing concern that developers may be provided an opportunity to skirt activity restrictions. To prevent this, we encourage the inclusion of a clear condition requiring that those sensitive periods described by the Regulator be respected at all stages of the project.

Obligation to Participate in Wind Energy Advisory Groups: We anticipate that there will be a proliferation of advisory committees established with stakeholders, developers and Regulators to support this burgeoning industry. We encourage the inclusion of a specific condition that obligates the developer to not only participate in these groups, but to also have a coordination/cost sharing role with them. We envision that the activities of these groups would be available for public review as per the public registry of stakeholder interactions described above.

The CNSOER welcomes your suggestions and feedback on considerations for a Participant Funding Program.	It is important to understand that the burden of offshore wind development is being placed directly on the fish and seafood sector without any supports being offered to assist them in this engagement. The sector is being forced to build their own internal expertise to effectively engage and guide development with the hope of preserving their traditional activities that would be otherwise unimpacted if it were not for this new player in the marine space. This approach is unsustainable. At minimum, there should be funds provided to the harvesting sector to establish capacity that allows them to engage in the development process. This would be to the benefit of developers and the fish and seafood sector, as more timely and informed engagement would become the norm as opposed to this file often being relegated as lower priority as the sector battles the vagaries of wild fish and seafood harvesting. The current model focuses on travel costs and per diems to participate in meetings which misses the core need of the sector to support capacity that is focused on engagement with offshore wind development. We encourage expansion of the supports to the industry to achieve that needed capacity and to support ongoing discussions with Regulators and developers as development proceeds.
The CNSOER welcomes any additional feedback and comments,.	The membership of the NSFAEE continues to advocate for the completion of a robust socioeconomic assessment of the fish and seafood sector prior to the development of offshore wind development. This work is required to determine the magnitude and direction of expected impacts and to identify opportunities for the two industries to work towards a common goal of improving the prosperity of Nova Scotia through additive economic activity. While there remains profound uncertainty on the approach to impact assessment of offshore wind projects and whether they will be considered a project of 'national' interest, we continue to insist that any offshore wind project, irrespective of size, be subject to a robust impact assessment process. We encourage an active role of the CNSOER in these reviews, noting that they are the Regulator of the offshore space and are best positioned to speak to impacts and mitigation. We discourage any abdication of this responsibility to the Province of Nova Scotia because of the complexity of the issues and the need to draw on other development experience in the offshore waters of Nova Scotia.

Attach your comments here -
Microsoft Word or Adobe PDF.

January 12th 2026

NSFAEE Compensation Considerations:

Principles

NOVA SCOTIA FISHERIES ALLIANCE FOR ENERGY ENGAGEMENT

Context :

The following principles should be used as a guidepost. Commitments to upholding these principles must be included in the evaluation of any call for bids and future terms and conditions for any subsea land licence.

There is an expectation that any wind energy developer will have sufficient understanding of the potential impacts of wind energy associated with the particular site of which they are proposing to bid for access on. Industry should be provided an opportunity to review these specific sections of proposals to provide confirmation to regulatory authorities that any potential developer does fully understand the fishery in the landscape of which they intend to operate.

Any bid must include acknowledgement of these risks alongside clear demonstration of the financial and planning capacity to both mitigate these impacts and compensate as required.

Collectively, we have developed principles below that should form the basis of consideration of how a compensation structure should be developed and evaluated against.

January 12th 2026

Principles:

General Compensation and Mitigation Principles:

- It is the firm position of the members of the NSFAEE that at the proposal stage of development (including evaluation of proposals prior to the granting of seabed tenure), potential impacts be acknowledged and considered by proponents/developers, including some demonstration and commitment of their ability to mitigate those impacts. Where mitigation cannot be demonstrated, demonstration of an ability to compensate must be shown alongside a clear commitment to provide compensation where appropriate.
- The costs of both mitigation (mitigation offset costs) and compensation (compensation costs) must be borne by the developer, as these costs would otherwise not be incurred.
- Granting of any authorizations must include a commitment to address mitigation offset costs and compensation costs.
- Eligible compensation should not just account for those fisheries currently in abundance today, but also new emerging fisheries and those that may recover under fisheries management practices or whose range stands to expand due to environmental change.
- Compensation schemes must reflect the expected lifetime of offshore wind development projects until such time sites are decommissioned and returned to a 'natural' state.
- The compensation framework should be sufficiently flexible to account for unforeseen impacts (e.g. those of which may not yet be in the scope of current understanding).
- Compensation frameworks and plans should be subject to regular review (i.e. once per five years) to support an adaptive management approach that reflects the current understanding and status of marine resources.
- Any value attached to compensation should be continuously scaled to the value of that resource and this includes consideration of shifting values of those commercial licences supporting the harvest. As examples, the increase in wharf value and availability of species changes on an annual basis and costs eligible for compensation should scale accordingly, extending through to the valuation of commercial licences on the open market which may be impacted by offshore wind development (i.e. devaluation of licences associated with lost resources upon which their value relies upon).

Direct Impacts:

1. Wherever possible, developments should be designed to accommodate fishing activity in an identical fashion as in a pre-construction manner.
2. Spatial adjustment of harvesting operations should not be considered a default option but should instead be considered a last resort as adjustment will lead to conflicts with other harvesters and potentially other species interactions outside of the offshore wind development.
3. Where fishing operations are not compatible with offshore wind developments/transmission infrastructure, gear configurations should be identified that are compatible with offshore wind developments. Transitioning costs to those gears and increased cost/decreased revenue due to changes in fishing power/activity challenges (i.e. bycatch rates) should be re-imbursed (mitigation offset costs) such that the net economic returns to operators of said fishery remain constant (no net loss). Furthermore, there is no requirement that harvesters be forced to

transition to those gears and those that choose not to transition should be eligible for compensation as per other incompatible gear types.

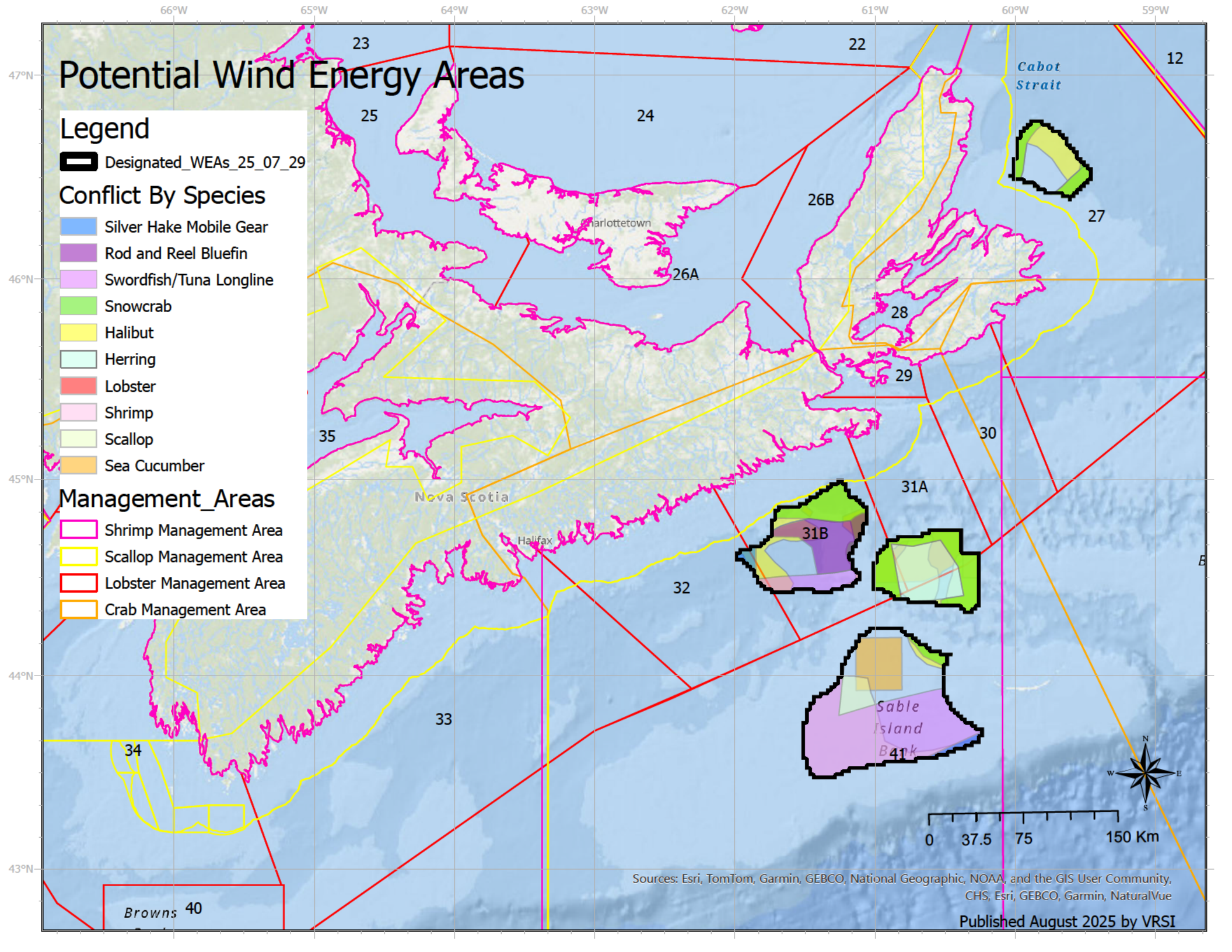
4. Where operational costs are increased (i.e. transiting, labor, relocation of home ports due to competition) because of the presence of offshore wind operations, impacted fishers and processors should be compensated for those increased costs.
5. Where fishing activity is completely incompatible with offshore wind developments, compensation should be provided to those impacted directly by the displacement, and those experiencing increased competition in those areas where fishers are forced to 'adjust' to.
6. Where safe biological removal levels are reduced because of an inability to access/survey resources located within the offshore wind developments (i.e. sessile benthic organisms, pelagic stocks re-locating to vertical structures), compensation will be provided.
7. In the event that those mobile species have relocated their distribution inside/proximal to offshore wind development (i.e. large pelagics) and are not available to be accessed by the harvesting sector, compensation to fishers will be required to account for this lost access.
8. The above applies not only to areas within the boundaries of defined offshore wind developments, but also to those buffer areas around developments that preclude the use of certain gear types because of risk of drift/interaction with said development.
9. Evidential requirements for the identification of impacts must be flexible because of the operational differences between fisheries. For instance, gear that is prone to drift only has records of set/pull locations meaning that no record of travel through an offshore wind development is available.
10. If stock assessment methodologies are no longer possible because of impacts associated with the rigor of scientific surveys employed by that regulator, loss of yields will be considered a compensable loss for fishers.
11. In those situations where offshore development leads to a net loss of raw materials being harvested, compensation must extend to the shore-based businesses who relied on those resources in a scale consistent with gross revenue and value.

Indirect Impacts:

1. To support the identification of indirect/cumulative impacts, before-after-control-impact designs will be at the center of environmental monitoring programs. Control sites must be established in areas unimpacted by development.
2. A third-party administered compensation fund which we propose as the Renewable Energy Effects Fund be established and populated with royalty-based revenue from offshore developers to act as a reserve fund in the event that unforeseen or cumulative impacts are recognized to allow the recovery of costs associated with indirect impacts.
3. Loss of productivity of individual fisheries that can be linked to the construction/operation of one or more offshore wind developments should be considered eligible for fisher and shore-sector compensation.
4. Indirect costs may require apportionment to multiple offshore wind operators because of the nature of cumulative effects.
5. Indirect impacts include those related to distribution and productivity of commercially targeted fish species both within the immediate project area and those potentially impacted further

afield (for example, sites historically receiving wind-driven distribution of larvae which are impacted by the harvest of said wind energy or those where the substrates have been altered to an unsuitable state).

6. Local changes to the biota within offshore wind developments should be treated in a similar fashion to lost/inaccessible biological productivity.
7. The burden of evidence to determine the magnitude of indirect impacts will be included in the relevant regulatory requirements associated with project authorizations. If offshore wind environmental monitoring plans are insufficient to determine the strength/magnitude of these indirect impacts, a precautionary approach will be applied preferential to perceived fishing productivity losses (i.e. failure of the establishment of robust data collection programs to demonstrate impacts will not be used to abdicate offshore wind operators from providing compensation for those impacts).


Potential Wind Energy Areas
Legend
Designated_WEAs_25_07_29
Conflict By Species
Silver Hake Mobile Gear
Rod and Reel Bluefin
Swordfish/Tuna Longline
Snowcrab
Halibut
Herring
Lobster
Shrimp
Scallop
Sea Cucumber
Management_Areas
Shrimp Management Area
Scallop Management Area
Lobster Management Area
Crab Management Area
66°W
65°W
64°W
63°W
62°W
61°W
60°W
59°W
47°N
46°N
45°N
44°N
43°N
23
22
12
25
24
Cabot Strait
26B
27
Charlottetown
26A
28
29
35
30
Nova Scotia
31A
31B
Halifax
32
33
34
Sable Island Bank
41
Browns
40
0
37.5
75
150 Km
N
S
E
W
Sources: Esri, TomTom, Garmin, GEBCO, National Geographic, NOAA, and the GIS User Community, CHS, Esri, GEBCO, Garmin, NaturalVue
Published August 2025 by VRSI

Identifying Parcels within Government-Designated Wind Energy Areas

The Wind Energy Areas identified by government in Sydney Bight, Middle Bank, and French Bank have long supported active commercial fisheries and continue to form a core part of the economic, social, and cultural fabric of Nova Scotia's coastal and rural communities. Any delineation of development parcels within these areas must be approached with the primary objective of avoiding disruption, restriction, or displacement of existing fishing activity and the associated shore-based economies.

Before parcels are confirmed, bids considered, or licences granted, the federal and provincial governments —acting through CNSOER—should be required to engage in structured, good-faith consultation with all directly affected interests. This includes Indigenous rights holders, commercial fishing sectors, offshore industries, underrepresented groups, and adjacent coastal and rural communities. Environmental, social, and economic impacts must be clearly identified and assessed prior to issuing any Call for Bids. Advancing the process without this foundational engagement risks causing disproportionate and potentially irreversible harm to communities that depend on these marine areas for their livelihoods.

Potential Evaluation Criteria for Offshore Wind Bids

Bid evaluation requirements should obligate proponents to demonstrate meaningful engagement with existing ocean users before submitting bids, particularly with commercial fishing interests. Proponents should be expected to show that they have actively sought to understand existing patterns of activity—including timing, location, and operational requirements—and to articulate how coexistence could be practically achieved.

Evaluation frameworks should place substantial emphasis on engagement outcomes, coexistence planning, mitigation strategies, and commitments to community benefits, in addition to technical and financial qualifications. In the absence of a transparent and reviewable engagement requirement, bidders cannot credibly assess impacts or present workable proposals.

Coexistence

Despite frequent reference in policy discussions, the concept of "coexistence" remains insufficiently defined. A clear, functional definition must be established as a condition of participation in the bidding process and developed collaboratively by offshore wind proponents and affected fishing and community interests.

Early and sustained involvement of impacted parties is essential to avoid both overt and unintended bias against established fisheries. Coexistence arrangements must be practical, enforceable, and negotiated directly between proponents and affected interests prior to bid approval. Governments and regulators should avoid occupying overlapping roles as policy-makers, mediators, and regulators in matters affecting existing ocean users.

Considerations for Fisheries' Compensation

Where coexistence cannot be achieved, a comprehensive and agreed compensation framework must be in place before any bids are accepted. The absence of finalized federal or provincial compensation mechanisms creates significant uncertainty and risk for affected fisheries.

Compensation arrangements should be negotiated directly between proponents and impacted fishing interests and supported by independent environmental and socio-economic assessments. No project should advance without a framework that adequately addresses displacement, operational disruption, and loss of access. Community-level benefits should be incorporated as a core component of this framework.

Reference is made to the Draft Compensation Framework developed by the Canadian Association for Seafood Security and Energy Development (CASSED), as well as the framework prepared by NSFAEE, both of which provide constructive starting points for further discussion.

Proposed Fees for Bid Submissions and Successful Bidders

Fees associated with applications for submerged land licences should be aligned with those applied to offshore oil and gas developments. These fees should also reflect the actual costs incurred by affected industries to participate meaningfully in the process, including travel, accommodation, and access to independent legal, technical, and scientific expertise.

Prior to project development, proponents must provide financial assurance sufficient to cover decommissioning, environmental remediation, and potential disruption to fishing activities.

Principles Listed in the Accord Acts

To ensure the concept of “importance” within the Accord Acts is applied in a meaningful and measurable way, developers must demonstrate concrete efforts to increase participation by underrepresented groups and to avoid, mitigate, or offset adverse impacts on fishing activities. Where feasible, this may include investment in fishing-related infrastructure such as public harbour improvements.

Project siting and design must prioritize the protection of fish habitat, commercially harvested species, and navigational safety. Construction schedules should align with fishing seasons, installation methods should minimize underwater noise and electromagnetic effects, and displacement of fishing activity should be avoided wherever practicable.

Community Benefits

Community benefits programs should be developed only after completion of a comprehensive federal socio-economic assessment examining the impacts of offshore wind development on coastal communities. Rural and coastal communities must be explicitly recognized as underrepresented and likely to experience disproportionate impacts.

Community benefit commitments should include the use of a predominantly Canadian workforce, prioritization of underrepresented groups, and sourcing of materials, manufacturing, and services within Canada wherever practicable.

Terms and Conditions of the Submerged Land Licence

Stakeholders must be provided with complete draft terms and conditions of Submerged Land Licences to enable informed review and meaningful input. Licence conditions should include enforceable requirements

related to coexistence, compensation, independent environmental and socio-economic assessments, and decommissioning plans supported by secured funding.

Development milestones must be clearly defined and enforceable. Failure to meet milestones should result in licence termination and forfeiture of assets to the Government of Canada. Licences should be non-transferable and revoked if not actively used for offshore wind development.

Participant Funding Program

The existing Participant Funding Program does not adequately support informed or equitable participation. Funding should extend beyond basic reimbursement to enable independent analysis, expert review, and capacity-building for affected communities and industries.

Additional Feedback and Comments

The current regulatory approach places disproportionate emphasis on capacity targets and timelines rather than on early, meaningful engagement with existing ocean users. Limited access to information and compressed consultation periods restrict informed participation and increase the risk of conflict within Nova Scotia's coastal communities.

Before advancing further, governments and CNSOER must provide detailed project information, complete independent assessments, and allow sufficient time for review. Offshore wind development must proceed in a manner that respects existing industries that have long supported local and provincial economies and that ensures long-term sustainability and social licence.

Nova Scotia Offshore Wind Development
Integrated Regional Compensation Framework

Introduction

This master framework provides a structured, transparent, and comprehensive approach for evaluating and compensating economic and community impacts arising from offshore wind development in Nova Scotia. This approach is intended to apply only after all efforts of "co-existence" have been exhausted through a combination of indirect and direct negotiations among all affected parties. It integrates sector-specific compensation pathways into five distinct categories:

1. License-Based Harvesting
2. Indigenous Commercial and Rights-Based Harvesting
3. Marine Users (Non-Fishing License Holders)
4. Shore-Based Dependent Businesses (e.g., processing plants)
5. Community Losses

These categories ensure equitable, sector-appropriate mechanisms for compensating for direct, indirect, and cumulative negative impacts to Nova Scotia's coastal economy.

1. Guiding Principles

- **Compensation to be a Condition of License for OSW Developers**.
- **Fairness & Transparency**: Open criteria, clear formulas, public governance.
- **Evidence-Based Decisions**: Claims grounded in verifiable data.
- **Independent Administration**: Neutral third-party claims processing.
- **Respect for Indigenous Rights & Treaties**.
- **Long-Term Accountability**: Compensation persists as long as impacts persist.

2. Compensation Categories

2.1 License-Based Harvesting (Non-Indigenous Commercial Fisheries)

This category applies to commercial fish harvesters operating under non-Indigenous licences issued by NSDFA and DFO-Canada.

Eligible Impacts:
- Loss of access to fishing grounds.
- Increased steaming time or fuel usage.
- Gear loss or damage.
- Impacts to moorings or water conditions.
- Reduced catch or stock displacement.
- Temporary or long-term business interruption.

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- License value loss

Compensation Mechanisms:
- Lost revenue based on verified historical landings.
- Reimbursement of increased operational expenses.
- Gear replacement or repair.
- Long-term displacement compensation where impacts persist.
- Reimbursement for license value loss

2.2 Indigenous Commercial and Rights-Based Harvesting

This category recognizes constitutionally protected Indigenous harvesting rights, covering both rights-based and communal commercial fisheries.

Eligible Impacts:
- Interruption of treaty-protected marine access.
- Effects on culturally significant species.
- Disruption of Indigenous-run commercial fisheries.
- Loss of traditional harvesting areas.
- Cultural and non-market losses not captured by financial metrics.

Compensation Mechanisms:
- Commercial compensation for economic impacts.
- Indigenous-defined Community Benefit Agreements.
- Indigenous-led monitoring, habitat protection, and stewardship programs.
- Cultural compensation approaches defined by affected Nations.

2.3 Marine Users (Non-Fishing License Holders)

This category includes all marine-dependent users who do not hold commercial fishing licences.

Examples of Marine Users:
- Marine tourism operators.
- Shipping, tug, and barge services.
- Marine construction and offshore service companies.
- Recreational marine organizations.
- Port-dependent coastal businesses.

Eligible Impacts:
- Navigation disruption.
- Reduced customer access (tourism).
- Rerouting, delays, or operational inefficiencies.

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- Infrastructure damage.

Compensation Mechanisms
- Lost revenue verified through production or customer data.
- Reimbursement of increased costs.
- Physical infrastructure damage claims.
- Transitional business interruption support.

2.4 Shore-Based Dependent Businesses (e.g., Fish Processing Plants, License Owners)

This category includes land-based businesses whose operations rely on consistent supply from fishing or marine harvesting sectors impacted by offshore wind development. These businesses often experience secondary economic disruption when access to resources is restricted offshore.

Examples Include:
- Fish processing plants (groundfish, pelagic, shellfish, sea cucumber, etc.)
- Live holding facilities
- Bait suppliers and bait-freezer operators
- Ice plants and cold storage facilities
- Transport and logistics providers tied to harvest volume
- Marine-dependent manufacturing or value-added processors

Eligible Impacts:
- Reduced raw material supply volume due to decreased landings.
- Production slowdowns or stoppages.
- Increased cost of sourcing product from more distant suppliers.
- Contract losses due to inability to meet buyer demand.
- Workforce impacts (layoffs, reduced shifts) connected to wind-related disruption.
- License value loss

Compensation Mechanisms:
- Lost revenue based on production reduction.
- Reimbursement for increased procurement costs (transportation, sourcing).
- Compensation for unfulfilled supply contracts.
- Support for labour retention during downturns.
- Capital investment support if facility adjustments are required.
- Reimbursement for license value loss

2.5 Community Losses

This category captures social, municipal, cultural, and public-interest impacts affecting entire communities.

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Examples of Community-Level Impacts:
- Reduced access to public coastline or harbours.
- Traffic and transportation disruption.
- Housing pressure from project workforce.
- Visual impacts affecting tourism.
- Strain on emergency or municipal services.

Community Compensation Tools:
- Community Infrastructure Funds.
- Tourism mitigation and marketing initiatives.
- Municipal service support programs.
- Coastal access improvements.
- Workforce housing investment.

3. Required Documentation Across All Categories

- Baseline financial data (2–5 years).
- Proof of operational footprint.
- Production, sales, or customer records.
- Evidence of impact such as logs, photos, incident reports.
- Verification of increased costs.

Alternative verification available for informal or small operators.

4. Compensation Fund Structure

A Regional Business Impact Compensation Fund (RBICF) will be established and funded by offshore wind developers. Governance will include provincial representatives, municipalities, Indigenous leadership, business sector delegates, and non-voting offshore wind observers. An independent third-party administrator will manage all claims.

5. Claims Process

1. Pre-Impact Registration (Failure to do so does not automatically disqualify a claimant)
2. Impact Occurrence
3. Claim Submission
4. Verification & Assessment
5. Compensation Decision
6. Appeals Process

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6. Long-Term Monitoring & Adaptation

- Annual formula review.
- Five-year cumulative impact assessment.
- Adjusted developer contributions based on evolving impacts.
- Public reporting for transparency.

7. Ethical & Social Licence Requirements

Compensation must support—not replace—proper consultation, coexistence planning, and Indigenous rights. Engagement must be early, ongoing, inclusive,.

8. Governance Structure

Independent Compensation Board including:

• Fisher representatives

• Indigenous leadership

• Marine economists

• Government observers

• Developers (non-voting)

Responsibilities will include validating formulas, reviewing claims, ensuring timely payment, and publishing reports.

10. Additional Safety Measures

• Mandatory decommissioning bonds

• Insurance-backed environmental guarantees

• Seasonal construction windows

• Marine Traffic Management Plan co-designed with industry

11. Transferability and Survival of Compensation Obligations

In the event that the Wind Farm Operator ("Assignor") elects to transfer, delegate, assign, sublet or convey to any other person, firm or corporation ("Assignee") all or any of the property, powers, rights and interests obtained by or conferred upon it by this Lease/License the Assignor and the Assignee shall be ***jointly and severally***

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liable *for all of the Assignor's original obligations with respect to compensation*. The Assignor shall have an enduring responsibility to indemnify third parties for any failure on the part of the Assignee to perform the compensation obligations required by the Lease/License and applicable legislation.*

Notwithstanding anything herein contained, any compensation liabilities or obligations of the Wind Farm Operator which arise under this Lease/License and applicable legislation which accrue prior to any partial or complete expiry, surrender, reversion or termination of the Lease/License* ***shall survive*** *such expiry, surrender, reversion or termination.*

*Note: the term "compensation" remains to be defined.

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APPENDIX A: COMPENSATION FORMULAS

A. Compensation Components

i. Direct Economic Loss, Immediate

Direct Loss = $\Sigma_{s,t}$ (Forecasted Gross Revenue$_{f,s}$ – Actual Gross Revenue$_{f,s}$) × (t / 365) × N

where the direct loss is computed over a given period in days t (a month or a season, for example) for a given entity f; the summation runs over all species routinely/historically fished or processed by a specific entity (based on prior documentation) in a comparable period to t, with each species denoted s;

Forecasted Gross Revenue$_{f,s}$ = Annual Forecasted Gross Revenue$_s$ × λ_f

forecasted gross revenue for a specific entity f with respect to a given species s is the annual per-species forecasted gross revenue for the area, multiplied by a fisher-specific scaling factor λ_f over a recent period, e.g. the last 3-5 years;

λ_f = Entity's Average Historical Revenue / Area's Average Total Historical Revenue

annual forecasted gross revenue for a species s is based on a sufficient data set of catches and values in the area using a damped-trend exponential smoothing model; and N is a normalization/scaling constant that can be used to address issues with respect to prorating compensation (for example, a graduated phase-out over time or a proration based on inadequate historical data).

ii. Extraordinary Costs Resulting from Displacement or Disruption

This compensation category addresses unavoidable and extraordinary fixed and indirect operating costs incurred by affected businesses as a result of offshore wind development related to disruption, displacement, or inefficiencies related to the avoidance and exclusion from wind farm areas. These costs persist even when production or revenue is unaffected or reduced and are not fully captured through Direct Economic Loss calculations alone.

Extraordinary Compensation$_{f,t}$ = Σ_c (Expected Cost$_{t,c}$ – Actual Cost$_{t,c}$) × λ_c

where the extraordinary compensation for a given period t and given entity f is computed by a summation of scaled differences running over all relevant costs c; an expected cost for a period t is based on a forecast that makes sense for the given cost and scaled for the time period t, e.g. a recent-period weighted average, the most recent price, etc; and λ_c is a scaling factor specific to the given cost.

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Covers additional fuel consumption, insurance, licensing, maintenance & minimum upkeep, lease/berth fees, labour retention, and more. For "Marine-Users, non fishing", in addition to the above, this also covers things like labour costs for additional time at sea, etc.

iii. **Future Earnings Loss (NPV Model)**

Future Loss = Σ [(Annual Lost Revenue + Annual Lost Profit Growth) ÷ (1 + Discount Rate)^t]

Use 8 years and 2% discount rate.

iv. **Intergenerational & Community Impact Fund**

Recommend 2–3% of total project CAPEX dedicated to community and fisheries support.

v. **Gear Damage & Navigation Hazard Compensation**

Rapid-pay (30 days) system for gear loss, vessel damage or costs incurred navigating around potential hazards caused by offshore wind development

Gear Damage/Loss Compensation = [(the lesser of replacement cost or prompt repair to a comparable pre-damage state) – (insurance payment)] × (scaling factors)

where the scaling factors could be used to include depreciation, to adjust compensation for partial loss of useful life, to reduce compensation for damage to short-lived assets, and/or to adjust compensation for partial payments in cases of mixed culpability.

vi. **Cultural & Treaty Rights Compensation**

Dedicated funding of $500,000–$2M per project for Indigenous access impacts.

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vii. **Displacement Premium**

Disruption ×1.1
Partial Displacement ×1.5
Full Displacement ×2.0–3.0

* Full Compensation Formula*

Total Compensation =

Direct Economic Loss

+ *Extraordinary Costs*

+ *Future Earnings Loss (20-year NPV)*

+ *Community Impact Fund Contribution*

+ *Gear Damage & Navigation Costs*

+ *Indigenous Treaty Impact Compensation*

+ *Displacement Premium (TBD)*

B. Tangible Asset Compensation

1. Full Replacement Cost (FRC) Formula

Use when the asset is fully destroyed or cannot be repaired.

Formula:

Compensation = Replacement Cost (New) + Associated Costs – Insurance Payout

Where:

- **Replacement Cost (New)** = cost to purchase equivalent new asset
- **Associated Costs** may include:
    - Installation
    - Programming/calibration
    - Shipping
    - Required certification/inspection
    - Lost operational time during replacement

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Example:

Asset: industrial fish net

- Replacement cost: $85,000
- Associated costs: $3,500
- Insurance payout: $20,000

Compensation = 85,000 + 3,500 – 20,000 = $68,500

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2. Repair Cost (RC) Formula

Use when asset can be repaired to original functional level.

Formula:

Compensation = Repair Cost + Associated Costs – Insurance Payout

Where:

- **Associated Costs** = transport, labour, downtime, calibration, etc.

Example:

- Repair cost: $12,000
- Associated costs: $1,800
- Insurance payout: $5,000

Compensation = 12,000 + 1,800 – 5,000 = $8,800

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3. Loss of Useful Life (LUL) Formula

Use when the asset is still functional but its lifespan has been shortened because of the impact (important for marine gear, processing equipment, pumps, motors).

Formula:

Compensation = Replacement Cost × (Remaining Useful Life Lost ÷ Total Useful Life)

Where:

- **Remaining Useful Life Lost** = years of lifespan reduced due to damage

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- This does **not** include cosmetic damage—only functional impact.

Example:

A conveyor motor is damaged during turbine cable-lay operations. It still works but lifespan drops by **3 years**.

- Replacement cost: $18,000
- Total useful life: 12 years
- Remaining useful life lost: 3 years

Compensation = 18,000 × (3 ÷ 12) = $4,500

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4. Business Interruption Add-On for Tangible Asset Loss

If the loss of the asset prevents production or operations, add a downtime compensation formula.

Formula:

Downtime Compensation = (Average Daily Production/Procurement × Days of Interruption) – Avoided Costs + Standby Costs

Where avoided costs = labour not used, utilities not used, etc.

Where standby costs = paying labour to maintain ones workforce, etc

This can be added to any tangible asset loss formula.

C. License Capital Value Loss Formulas

1. Market Value Loss Formula

Use this where licences/quotas have a **known market price** (buy/sell, broker data, recent transactions).

Variables

- $\mathbf{V_0}$ = Baseline market value of the licence *before* January 2025
- $\mathbf{V_1}$ = Market value of the licence *after* offshore wind impact (or best estimate)

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- **A** = Attribution factor (0–1) = proportion of the loss clearly attributable to offshore wind
    - 1.0 = loss entirely due to wind farm
    - 0.5 = only half the loss can reasonably be tied to wind farm effects

Formula

Compensation = $(V_0 - V_1) \times A$

If the licence is considered **effectively worthless** (full loss):

- $V_1 \approx 0 \rightarrow$ **Compensation ≈ $V_0 \times A$**

---

2. Earnings / Net Present Value (NPV) Loss Formula

Use this where you want to base compensation on **future earning capacity** of the licence, not just current trading price.

Variables

- **π_0** = Expected average *annual net profit* from the licence without wind farm (baseline)
- **π_1** = Expected average *annual net profit* with wind farm in place
- **$\Delta\pi = \pi_0 - \pi_1$** = annual loss of profit attributable to offshore wind
- **T** = Time horizon in years (e.g. 20 years, or remaining expected useful life)
- **r** = Discount rate (e.g. 3–6% in real terms)

Formula

Compensation = $\Sigma_{t=1}^{T} (\Delta\pi / (1 + r)^t)$

In words: *the present value of all future profit lost because of the wind farm*.

If you want a simpler approximation when Δπ is expected to be fairly stable:

Compensation ≈ $\Delta\pi \times [1-(1+r)^{-T} / r]$

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3. Partial Loss Due to Loss of Grounds (Percentage Method)

Sometimes only part of the licence's value is lost (e.g. 30% of the grounds made inaccessible or uneconomic).

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Define:

- **L** = Proportion of commercial value lost due to displacement (0–1).
    - Example: if ~40% of the historically fished grounds are effectively lost, L = 0.4

Then, for a **market-based shortcut**:

Compensation = $V_0 \times L \times A$

Where A again is the attribution factor (if you want it separate from L you can, or just roll it into L).

You can also apply L to earnings:

$\Delta\pi \approx \pi_0 \times L$
then plug Δπ into the NPV formula above.

---

4. Recommended Policy Formula

To be fair and robust, you can specify that compensation for **licence value loss** is the **greater of**:

1. **Market Value Loss**

$C_1 = (V_0 - V_1) \times A$

2. **NPV of Lost Earnings**

$C_2 = \Sigma_{t=1}^{T} (\Delta\pi / (1 + r)^t)$

Then define:

Final Compensation for Licence Value Loss = max(C_1, C_2)

You can also write this in policy language like:

"Compensation for permanent or long-term loss of commercial licence value shall be calculated as the greater of (a) the verified loss in market value of the licence attributable to offshore wind development, and (b) the net present value of projected future profit reductions attributable to offshore wind development, using an agreed discount rate and time horizon."

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[redacted]
Submission on Offshore Wind Call for Information NS25-1R
Due Diligence, Coexistence, Compensation Triggers, and Governance Integrity

---

1. Introduction and Position

[redacted] submits the following comments in response to the Offshore Wind Call for Information NS25-1R.

[redacted] does **not oppose offshore wind development in principle**. We recognize that offshore wind may play a role in future energy systems and acknowledge stated objectives related to coexistence with existing ocean users.

However, [redacted] **cannot support, endorse, or meaningfully participate in a process that advances offshore wind development without complete due diligence, fit-for-purpose research, clearly defined safeguards for the marine environment, and transparent accountability mechanisms for those most directly affected**.

At present, those minimum conditions have not been met.

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2. Due Diligence and Decision Sequencing

Offshore wind development represents a long-term industrial use of the marine environment. Decisions taken at early stages, including parcel identification, seabed tenure, licensing, and impact-assessment scoping, carry consequences that are **difficult or impossible to reverse in practice**.

A process becomes procedurally unsound when irreversible decisions are advanced **before the information required to evaluate environmental, operational, and socioeconomic consequences is available**.

[redacted] observes that key regulatory steps are being contemplated while foundational elements of due diligence remain incomplete. Proceeding under these conditions introduces **foreseeable and preventable risk**.

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3. Research Gaps and Limitations in Available Information

3.1 Absence of Established Baseline Research

[redacted] notes the absence of a clearly articulated baseline research program that is:

- Multi-year in duration
- Species- and gear-specific
- Designed to capture spatial and temporal variability

- Implemented before key regulatory decision points
- Capable of supporting before-after-control-impact (BACI) analysis

Baseline research initiated after parcel finalization or licensing cannot meaningfully inform avoidance or minimization decisions. At that stage, it functions primarily as a post-hoc justification rather than a precautionary assessment.

3.2 Limitations of Historical Fisheries Data

Reliance on narrow historical datasets to infer current and future fishing activity does not adequately account for:

- Long-standing moratoria that suppress apparent activity
- Re-opening of stocks after prolonged closures
- Shifts in species distribution driven by environmental change
- The inherently mobile nature of many commercial species

Absence of recorded activity within a given period does **not** equate to lack of fishing importance or future use.

3.3 Functional Fishing Space Is Insufficiently Considered

Fishing activity cannot be accurately represented by static spatial overlap alone.
Many fisheries depend on maneuvering space, drift corridors, operational flexibility, and safe set-and-haul geometry. Infrastructure such as turbines, cables, and safety zones restrict **how fishing is conducted**, not merely where it occurs. These functional impacts remain insufficiently studied.

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4. Impact-Assessment Timelines and Capacity Constraints

[redacted] is concerned that efforts to accelerate assessment and approval timelines may compromise the quality and credibility of reviews.

Meaningful engagement requires time to review technical material, consult within fishing communities, obtain independent expertise, and assess cumulative and indirect effects. Efficiency cannot substitute for scientific certainty. Accelerated processes do not reduce uncertainty; they increase the likelihood that impacts are identified only after harm has occurred.

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5. Fisheries Compensation: Role, Trigger, and Accountability

5.1 Clarifying the Trigger for Compensation

At present, the process does not clearly define what constitutes a failure of coexistence, nor what conditions trigger fisheries compensation. This absence creates uncertainty and weakens accountability.

[redacted] submits that **fisheries compensation should be triggered when reasonable, good-faith coexistence measures, including avoidance, mitigation, and operational accommodation, are unable to address the concerns of fishing interests most directly affected**.

Under this framework, compensation is **not contingent upon fishers proving harm after the fact**, but rather arises when coexistence measures cannot reasonably prevent indirect, cumulative, or downstream impacts.

This approach places responsibility for achieving coexistence where it belongs: with offshore wind proponents, supported by government policy, rather than with existing ocean users whose activities predate the proposed development.

5.2 Compensation as a Safeguard, not a Discretionary Remedy

Compensation mechanisms must be established **before** risk is introduced, not after impacts occur.

Critical elements that must be defined in advance include:

- Eligibility criteria
- Scope of compensable impacts (direct, indirect, operational, efficiency-related)
- Treatment of mobile-gear fisheries
- Administration and dispute-resolution processes
- Timing of compensation relative to impact occurrence

Without these elements in place, compensation described as a “last resort” becomes an ineffective safeguard.

5.3 Cost Certainty and Taxpayer Protection

[redacted] further notes that clearly defined compensation triggers and frameworks **protect taxpayers** by establishing known or foreseeable costs associated with offshore wind development.

Upfront clarity ensures that:

- Compensation obligations are internalized into project economics
- Offshore wind proponents appropriately price and manage risk
- Governments are not later asked to absorb unanticipated costs
- Public funds are not used to remedy impacts that should have been anticipated

A transparent, pre-defined compensation framework reduces the likelihood of future claims that impacts were “unexpected” or unforeseeable.

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6. Governance and Institutional Independence

[redacted] is concerned that the current governance structure concentrates multiple, potentially competing roles within a single institution.

These roles include system design, licence issuance, regulatory oversight, and involvement in the development of coexistence and compensation mechanisms.

When a single entity is responsible for authorizing development, defining the conditions under which impacts are managed, and overseeing remedies for those impacts, there is a **reasonable perception of institutional conflict** that undermines confidence in the fairness and independence of the process.

[redacted]submits that coexistence and compensation frameworks would be more credible if designed and administered by an independent body, or at a minimum, subject to independent review and appeal mechanisms that are institutionally separate from licensing and authorization functions.

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7. Fisheries Considerations and Regulatory Obligations

Any framework that gives “importance” to effects on fishing activities must do so substantively, not procedurally. This requires continuous consultation, consideration of impacts beyond project footprints, early baseline monitoring, and evaluation criteria that reflect the realities of fisheries.

Advancing spatial or licensing decisions before these elements are in place risks reducing fisheries considerations to formality rather than protection.

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8. [redacted] Position and Conditions for Engagement

[redacted] remains prepared to engage constructively in offshore wind discussions **once minimum conditions for due diligence, scientific integrity, accountability, and environmental protection are satisfied**.

Until such time, [redacted] cannot responsibly offer support for a process that:

- Advances irreversible decisions on an incomplete record
- Relies on data that does not reflect fisheries realities
- Compresses assessment timelines without adequate capacity
- Lacks defined compensation triggers and independent oversight

Incomplete due diligence does not protect the environment; **it gambles with it**.

---

9. Requested Actions

[redacted] respectfully requests that regulators and governments:

1. Define coexistence failure and compensation triggers in advance
2. Complete and publish a fisheries compensation framework before seabed tenure or licensing
3. Establish and fund independent baseline fisheries research before parcel finalization
4. Align assessment timelines with meaningful fisheries participation
5. Implement independent oversight or appeal mechanisms for coexistence and compensation

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10. Closing

Fishing communities are not obstacles to environmental protection. We are among the few groups whose livelihoods depend on the long-term health of the marine ecosystem. [redacted] position reflects responsibility, not resistance.

We cannot proceed or offer support for an incomplete due diligence process that jeopardizes the environment, coastal livelihoods, and public trust.

SUBMISSION | Marine Renewables Canada Comments on Call for Information NS25-1R

Submitted to: CNSOER
Submitted by: Elisa Obermann, Executive Director
Contact: elisa@marinerenewables.ca
Date: 7 November 2025

Marine Renewables Canada (MRC) welcomes the opportunity to provide input on Nova Scotia's Offshore Wind Call for Information NS25-1R. This submission has been developed based on feedback received by MRC members as well as analysis conducted by MRC. The aim of this submission is to provide insight that can help inform CNSOER's recommendation to Ministers to make a Call for Bids.

Unlocking Nova Scotia's immense offshore wind energy resource is a major, nation-building project with the potential to drive billions of dollars in investment, providing clean power and jobs for generations. However, building a new industry requires that we all work together, across governments, industry and communities to share risks, address challenges and coordinate investments to maintain momentum.

Our collaborative efforts to reduce uncertainty must also recognize global challenges for the industry. Recent US government decisions to disrupt project permitting and issue stop-work orders to halt projects mid-construction underline the importance of a stable, transparent and predictable process to investor confidence. Supply chain and trade disruptions are increasing project risks while inflation increases the cost of inputs. Meanwhile, recent bid processes in the European Union have highlighted challenges to the industry.

In this moment it is important that decisions on evaluation criteria, terms and conditions for a submerged land license, and the applicable fees account for these global challenges. Any opportunity to reduce uncertainty and derisk projects will be critical to unlocking these historic investments in the Nova Scotian offshore.

With these factors in mind, MRC would like to make the following comments.

General Comments

1. Transmission and offtake opportunities will be key to success

For the Call for Bids to be successful there must be a clear route to market. For industry to invest $1 million for a submerged land license, $1500 per km^2 in annual rental fees and much more in development costs, there must be a buyer for the electricity and confidence that the necessary transmission infrastructure will be built on time.

Therefore, there must be sufficient assurances in place by the launch of the Call for Bids to give industry confidence in offtake opportunities for offshore wind energy. These assurances may come in multiple forms, and may include the following:

- A concrete commitment by Nova Scotia to procure electricity from offshore wind for use in Nova Scotia, evidenced by clear capacity targets and timelines for procurement.
- Cooperation or collaboration agreements between Nova Scotia and other provinces such as New Brunswick, Quebec, and Ontario to procure electricity from Nova Scotia's offshore wind production, with clear capacity targets and timelines, and work together on interregional transmission planning.
- Commitments from the Canada Growth Fund or Canada Infrastructure Bank to derisk offtake through Offtake Contracts, Contracts for Differences or another mechanism.
- Federal commitment to Wind West, including a plan to fund the capital cost of transmission infrastructure and credible timelines for completion.
- Commitment to the necessary transmission infrastructure to support offtake for early projects in advance of the full completion of Wind West.

2. Current Timelines Are Reasonable

MRC appreciates the length of the Call for Information and Prequalification period and is comfortable with the Call for Bids being pushed into 2026. As noted there remain issues to resolve such as transmission and offtake for the Call for Bids to be successful. We therefore support taking the time to do it right.

3. A Clear, Proposed Approach to the Call for Bids is Required for Effective Feedback

Previous meetings with the government officials indicated the Call for Information stage would provide opportunity to comment on proposed criteria, a proposed assessment approach, and draft terms and conditions for the upcoming Call for Bids. This way, stakeholders could provide feedback on the proposed approach. Instead of a proposed approach, this call for information

includes a list of possible criteria, a summary of possible terms and conditions, and limited information on the assessment approach.

It is difficult for industry to provide effective feedback when the criteria, assessment approach and terms and conditions remain vague.

Therefore, we would recommend that the CNSOER publish the proposed criteria and assessment approach and draft terms and conditions for comment well before the conclusion of the Call for Information to allow further comments on a specific proposed approach.

Offtake Mechanisms

4. 2028 is Too Late to Address Offtake

The Strategic Direction notes that "work on offtake will be initiated within 12-18 months of the issuance of the first submerged land licence(s)". Depending on Call for Bid timelines, this could mean waiting until mid-2028 to determine offtake opportunities. Such delay will needlessly delay investment in project development and therefore delay project construction and commissioning. Lack of confidence in an offtake option may even reduce interest in submerged land licenses as investors consider the upfront cost of $1 million and potential annual rental fee of $1500 CAD per km2 per year.

MRC recognises that not every detail will be resolved ahead of the Call for Bids, however, recommends that the appropriate parties urgently work on designing an offtake procurement process with defined procurement targets and timelines to provide market confidence as noted in point 1.

Revenue Regime

5. Clarity on the Beneficiaries of the Royalty Regime

Initial indications were that portions of the Provincial royalty would support fisheries compensation and Indigenous community benefits. If this is to be the case, then the beneficiaries of these royalties and how these benefits will be allocated must be clearly communicated by government to fisheries stakeholders and Indigenous rights holders to provide clarity and avoid confusion as projects seek to build social license.

6. **License Fees Must Balance Up Front Risks Against Commitment**

As noted in point 1 and further in point 10 below, there remains significant uncertainty affecting the business case for project development. While industry supports the purpose of license fees to demonstrate seriousness of intent, this purpose must be balanced against the risks imposed by up-front costs.

Therefore, we recommend that the $250,000 fee be changed to a performance security to only be paid by the successful bidders. This eliminates the risk that a company may be required to pay $250,000 if their bid is unsuccessful.

We also recommend that instead of an upfront fee of $750,000 for a submerged land license, license fees can be linked to bilateral milestones as a project is developed. Bilateral milestones should recognize that progress on offshore wind projects will require government action to address risks outside the control of industry such as transmission infrastructure and availability of offtake. This could also include shared milestones such a power purchase agreement.

7. **Revenue Regime Must Consider Relative Costs to Other Producers**

The proposed revenue regime must consider how offshore wind royalties compare to those paid by other power producers. For example, onshore wind projects typically pay 2-3% of gross revenue (typically lower on Crown land) while the Wind West Strategic Plan envisions a 4% royalty rate on offshore wind. Furthermore, these fees will directly impact the cost of power to ratepayers, negating the potential revenue benefits government is seeking.

8. **Cost Recovery Fees Should be Avoided**

MRC agrees with the Strategic Direction that the revenue regime for offshore wind should be redistributed back to the Province rather than collected by the regulator as a cost-recovered fee. The Province can then use a portion of this revenue to fund the CNSOER's offshore wind related activities appropriately through regular provincial budget processes. This approach avoids issues experienced in the offshore oil and gas sector where requirements for 100% cost recovery can lead to fee spikes when the number of participants is low and a disconnect between the level of cost-recovery fees and the actual services rendered.

Evaluation Criteria

9. Clarity on Qualitative Criteria and Weighing

As presented, the evaluation criteria may be pass-fail criteria or qualitative. Industry will require further clarity on if and how these criteria will be measured and weighted well in advance of a Call for Bids process to prepare the highest quality bids possible and help achieve government objectives.

Standards will need to clearly articulate what is expected for a successful bid. Additional detail is required on what the expectations are regarding level of detail and maturity in the plans included in bidder responses. It is worth noting that it will be difficult and premature for bidders to develop detailed stakeholder and community benefit plans for projects prior to obtaining licences and knowing which onshore communities will be impacted (which will be driven by what submerged licence they are awarded, if any). It would be premature for developers to commit to stakeholders too far in advance and could undermine stakeholder trust in developers and the offshore wind industry if the Call for Bids incentivizes premature commitments in the early stage of the process. The criteria and weighting should reflect this early stage, especially since offtake (and substantial investment) may not come for years later, as discussed above.

Further to point 5 above regarding the revenue regime, if the intent of the revenue regime is to fund Indigenous community benefit, then this built-in cost should be considered when establishing standards for Local Community Benefits Plan as evaluation criteria.

10. Project Financing Plans Must Account for Uncertainty

Many pending Federal government decisions will affect project financing plans. For example, the *Wind West Strategic Plan* makes several requests to the government of Canada including national interest project designation that will affect project costs, access to capital, transmission infrastructure and Canada Growth Fund opportunities to address offtake risk.

Furthermore, the *Wind West Strategic Plan* anticipates construction and commissioning of the first turbines by 2033, meaning even the slightest delay to the first round of projects will compromise eligibility for the Clean Economy Investment Tax Credits (ITCs). Absent an extension to the ITCs, investors will be hesitant to consider ITCs in their Project Financing Plans.

Therefore, we ask that Project Financing Plan criteria standards be minimized to account for this uncertainty.

11. Flexibility in Supply Chain / Workforce Development Requirements

Similar to point 10 above, supply chain and workforce development requirements must be flexible to account for these uncertainties as well as current global supply chain disruptions and trade instability.

12. Submerged Land License Duration of 48 Years is Supported

Submerged Land Licence Duration must consider the cumulative impact of the timelines imposed on offshore wind projects to allow sufficient opportunity for development, construction and a full operational lifecycle. Offshore wind projects can take 7-10 years to come online. There is the ongoing land tenure process, then environmental approvals and permitting and a construction phase that may have to compete for limited resources with other projects. Concurrently, projects must consider the pending Federal government decisions noted in point 10 and ongoing global supply chain disruptions.

The maximum term of the SLL of 48 years recognizes these challenges and MRC supports the overall structure.

Considering the numerous risks outlined above that are outside of the control of industry, we would recommend that the Site Assessment Period include an extension mechanism so that licenses are not forfeit if the necessary conditions for construction are not met. These could consider government commitments to transmission infrastructure and offtake or delays in environmental approvals.

13. Structure Financial Assurance Requirements to Reduce the Up-Front Costs

Currently the potential Terms and Conditions for the SLL state “At the end of the Site Assessment Period, it is proposed that the Interest Owner will need to submit financial assurance to cover the costs of decommissioning anything constructed during the Construction, Operations and Maintenance Period.” Industry recognizes the need for financial assurance to cover decommissioning costs. However, putting these assurances in place at the very beginning for projects that will span decades will unnecessarily increase project costs.

We recommend an approach where portions of revenue are set aside over time to cover decommissioning costs. Such an approach will balance costs and risks and better aligns with a SLL Operations and Maintenance Period of up to 40 years or more.

Fisheries' Compensation

14. Compensation Must be Time Constrained

Fisheries' compensation must focus on direct economic impacts and species impacts. It should also prioritize adaptation and acclimation with clear time constraints in order to avoid created adverse economic incentives. For example, US Federal guidance provides compensation for the duration of construction and for 5 years of Operations on a declining scale. Compensation must also consider the differences between the offshore wind projects themselves and the export cable corridor with appropriate rules for each.

[redacted]

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[redacted]

[redacted]

From: Jonathan Robinson [redacted]
Sent: Thursday, January 8, 2026 2:28 PM
To: Kris Kendell [redacted]
Cc: Elisa Obermann [redacted]; Claire Kleinknecht [redacted]
Subject: Industry Follow Up on NS25-1R

Good Morning Kris,

I wanted to follow up on point 3 from our feedback to Call for Information NS25-1R. (copied below my signature)

In my conversations with developers, they've made it clear that it is paramount for them to have more detail on the Bid Requirements, the Qualitative Assessment Criteria, and the Submerged Land License Terms & Conditions in advance of the Call for Bids. If they only receive these details on day 1 of the Call for Bids, then it will be difficult to produce a quality bid in the 90-day timeframe. Ideally, there should also be an opportunity to comment on the proposed criteria and Ts&Cs.

We do appreciate that the Call for Information included a list of *What might* be

considered, but it will be important to understand *How* it may be considered in terms of how it is being measured, and what the actual requirements will be. Likewise, the Submerged Land License Terms and Conditions will need to be reviewed in depth by Industry and may impact bid design.

I understand that a review period for these pieces doesn't fit neatly into the land tenure process given that the Call for Information is almost complete. I'm happy to discuss how this opportunity can fit into the process if you'd like to set up a call.

Regards,

Jonathan Robinson | Senior Policy Advisor

Marine Renewables Canada
[redacted]

3. A Clear, Proposed Approach to the Call for Bids is Required for Effective Feedback

Previous meetings with the government officials indicated the Call for Information stage would provide opportunity to comment on proposed criteria, a proposed assessment approach, and draft terms and conditions for the upcoming Call for Bids. This way, stakeholders could provide feedback on the proposed approach. Instead of a proposed approach, this call for information includes a list of possible criteria, a summary of possible terms and conditions, and limited information on the assessment approach.

It is difficult for industry to provide effective feedback when the criteria, assessment approach and terms and conditions remain vague.

Therefore, we would recommend that the CNSOER publish the proposed criteria and assessment approach and draft terms and conditions for comment well before the conclusion of the Call for Information to allow further comments on a specific proposed approach.

The CNSOER welcomes your suggestions and feedback on the government identified Wind Energy Areas (Sydney Bight, Middle Bank, and French Bank) and the factors the CNSOER will use to design parcels within those Wind Energy Areas.

The Applicant support the Strategic Direction's proposed approach and agree with the factors identified for defining Wind Energy Areas and designing parcels. These factors are appropriate and consistent with international best practices for offshore wind development.

We recommend that parcels be sufficiently large, as experience shows that significant portions of a lease area may later be excluded following detailed geophysical, geotechnical, environmental, and engineering surveys due to seabed conditions, technical constraints, or competing uses. Larger initial parcels help preserve project viability after these exclusions.

Wind resource quality should remain a primary consideration, as higher wind speeds and lower turbulence directly support improved energy yield and lower levelized cost of electricity for end users. Water depth is also a critical parameter, as it directly influences the choice between fixed-bottom and floating foundation technologies. While the Strategic Direction appropriately prioritizes areas technically suitable for fixed-bottom offshore wind development in Sydney Bight, water depths exceeding approximately 55-60 metres often challenge the economic viability of fixed-bottom solutions unless wind conditions, seabed characteristics, and local supply chain maturity are exceptional. Given the uncertainty on seabed conditions until on-site surveys are conducted and current state of local supply chain development, this consideration is particularly relevant .

In this context, we recommend that the parcel configuration for Sydney Bight be slightly revisited, as modest adjustments to the layout could materially reduce average water depths . If extended by 2,5 km closer to shore, over 300 MW of additional fixed-bottom capacity could be considered. Such refinements could have a significant positive impact on foundation feasibility and, ultimately, on reducing the cost of electricity for Canadian consumers.

Proximity to electricity demand centres and coordination with transmission planning, including both industrial and residential load nodes, is also important to reduce transmission costs, grid losses, and overall system integration complexity. It is crucial that the development of new transmission infrastructure matches the offshore wind project timeline to avoid commissioning delays.

Finally, we suggest that a minimum feasibility screening of geotechnical conditions be applied early in the parcel design process to avoid allocating areas with clearly prohibitive seabed characteristics that could prevent viable foundation installation.

Finally, we emphasize that early and ongoing stakeholder engagement and validation are critical to the successful design of Wind Energy Areas and parcels. This should include meaningful engagement with Indigenous Peoples, fishing interests, coastal communities, other marine users, as well as relevant

environmental authorities and conservation organizations, to identify ecological sensitivities, reduce potential conflicts, and support responsible and socially acceptable offshore wind development.

The CNSOER welcomes your suggestions and feedback on bid submission criteria to be used as part of the Call for Bids process, including specific criteria, criteria weighting, scoring metrics, and evaluation methods.

We generally agree with the proposed approach to bid submission criteria and their use within the Call for Bids process. A clear, transparent, and well-weighted set of criteria is essential to ensure that the process selects proponents that are capable of delivering complex offshore wind projects in a timely, safe, and responsible manner, while maximising long-term benefits for Nova Scotia. In this context, we recommend that the criteria framework place clear and material emphasis on demonstrable, offshore wind-specific experience as a core indicator of delivery confidence, whether applied as a qualification requirement, a scored criterion, or a combination of both.

Offshore Wind Technical Expertise and Delivery Capacity

Offshore wind is a highly specialised industry with technical, logistical, financial, and regulatory challenges that differ materially from those encountered in onshore renewables or other offshore infrastructure sectors. These include complex marine construction, harsh metocean conditions, long supply chains, specialised vessels, grid integration at scale, and stringent health, safety, and environmental requirements. Experience gained through the full lifecycle of offshore wind projects (development, consenting, financing, construction, commissioning, and operations) significantly reduces delivery risk and increases the likelihood of projects being delivered on time and on budget. Bid criteria that meaningfully value such experience help ensure that awarded projects are realistic, bankable, and deliverable.

International experience demonstrates the value of prioritising offshore wind-specific expertise in competitive seabed and permit allocation processes. In Europe, multiple jurisdictions have embedded offshore wind track record as a central consideration, either through pre-qualification gates, scored capability criteria, or both. The ScotWind leasing round is one example, where delivery capability and organisational competence were assessed alongside broader policy objectives, helping balance ambition with credibility and execution realism.

Similarly, offshore wind leasing rounds run by The Crown Estate in England, Wales, and Northern Ireland have used robust pre-qualification stages to test bidders' technical capability and relevant offshore wind experience before allowing access to seabed rights. These processes explicitly seek evidence of experience in offshore wind development, consenting management, construction planning, and project delivery, ensuring that only bidders with proven capability can progress.

Other European models reinforce the same principle. In the Netherlands, certain offshore wind tenders apply a "comparative test" in which qualitative criteria such as knowledge and experience are scored, with higher rankings awarded to bidders that can demonstrate deeper and more relevant offshore wind track records. Denmark and Ireland likewise require bidders to

evidence technical and organisational capacity, including offshore wind or closely comparable marine energy experience, as a condition of participation in offshore wind tenders. Across these jurisdictions, the consistent lesson is that offshore wind-specific experience is treated as a prerequisite for credibility and delivery confidence, not merely an optional differentiator.

Applying similar principles in Nova Scotia would support the development of a robust offshore wind sector founded on experience, risk awareness, and operational excellence, while still allowing CNSOER flexibility in how criteria are structured and weighted.

Balancing Local Content with Competitive Pricing

An effective local content and workforce development framework should be grounded in Nova Scotia's inherent strengths and informed by proven international practice. The ScotWind process provides a useful precedent, as it required supply chain development statements from all applicants but deliberately excluded them from the competitive scoring for seabed awards, instead converting these commitments into binding contractual obligations once option agreements were executed. This structure avoided a "race to the top" of unrealistic promises, ensured commitments were credible and deliverable, and focused competition on capability and execution. Building on this approach, we recommend identifying Nova Scotia's competitive advantages in ports, marine expertise, shipbuilding and fabrication, and research and education infrastructure; prioritizing multi-value investments such as port upgrades that benefit offshore wind and the broader marine economy; avoiding local content requirements where competitive supply does not exist (e.g., turbine manufacturing or specialized vessels); setting realistic and flexible targets; and drawing on European experience, which has evolved toward emphasizing operations and maintenance bases and workforce training rather than broad manufacturing mandates.

Social and Stakeholders Engagement

In addition to technical and financial capability, we strongly support the inclusion of criteria that assess a bidder's ability to work constructively with stakeholders and to build durable public support. Offshore wind projects interact with a wide range of interests, including coastal communities, Indigenous groups, fisheries, regulators, ports, and local supply chains. Demonstrated experience in meaningful engagement, transparent communication, and long-term partnership building is critical to securing social licence and reducing the risk of delays or conflict. Bidders that can evidence successful stakeholder engagement in other jurisdictions should be recognised and rewarded within the evaluation framework.

The CNSOER welcomes your suggestions and feedback on coexistence.

We strongly agree that coexistence between the emerging offshore wind sector and existing and future ocean users in the Canada-Nova Scotia offshore should be a priority throughout the land tenure process and the full project lifecycle. Coexistence should be approached as a practical, evidence-based objective, grounded in safety, environmental protection, and long-term ocean stewardship, rather than as an abstract or purely aspirational concept.

Experience from mature offshore wind markets demonstrates that well-designed offshore wind projects can deliver positive outcomes for marine biodiversity, with indirect benefits to several ocean users. Foundations, scour protection, and exclusion zones around turbines can act as artificial reef structures, increasing habitat complexity and local biodiversity. In some regions, reduced seabed disturbance and limitations on certain extractive activities within wind farm areas have contributed to localized ecological recovery, with potential benefits for fisheries sustainability over time. While biodiversity is not itself an "ocean user," these positive environmental effects can support broader ecosystem services that underpin multiple marine activities.

At the same time, it is important to apply a realistic and safety-driven lens to coexistence with certain ocean uses. In particular, full physical coexistence with maritime transport, aviation, and high-intensity tourism activities is often limited in practice due to navigational safety, operational risk, and regulatory constraints. Offshore wind farms are designed as industrial energy assets, and clear spatial planning, safety buffers, and exclusion or routing measures are essential to minimise collision risk and ensure the safety of vessels, crews, and the public. Attempting to force shared use in areas where risks cannot be acceptably managed may undermine both safety and public confidence .

Effective coexistence therefore relies less on universal co-location and more on early spatial planning, transparent engagement, and tailored mitigation measures. This includes early dialogue with fisheries, shipping interests, ports, Indigenous groups, and regulators; adaptive project design informed by baseline data; and the use of monitoring and adaptive management throughout the project lifecycle. Where coexistence is not feasible, fair and predictable avoidance, mitigation, or compensation mechanisms should be considered as part of a balanced approach.

In this context, we encourage CNSOER to frame coexistence as a structured, risk-based process embedded within marine spatial planning and project assessment, rather than as an expectation that all ocean uses can or should physically coexist within offshore wind areas. Such an approach reflects international best practice, supports safety and environmental integrity, and creates the conditions for offshore wind to develop alongside other ocean uses in a durable and socially acceptable manner.

The CNSOER welcomes your suggestions and feedback on behalf of governments on considerations for fisheries' compensation.

We support the recognition by governments and CNSOER that offshore wind development may result in impacts to existing ocean users, including the commercial fishing and seafood sectors, and that fisheries' compensation is therefore an important component of a responsible offshore wind framework.
In this context, we strongly recommend that fisheries' compensation be delivered through a government-administered scheme or an independent third-party mechanism, rather than through direct compensation arrangements between offshore wind developers and fishing interests.
International experience demonstrates that centrally administered or independent compensation frameworks provide greater transparency, consistency, and fairness than bilateral, project-by-project negotiations. Direct compensation arrangements can create unequal outcomes, power imbalances, and prolonged negotiations, while increasing uncertainty for both developers and fishing interests. By contrast, government or independently governed schemes allow for standardized eligibility criteria, valuation methodologies, and oversight, and are more resilient as offshore wind deployment scales.
Several offshore wind jurisdictions have adopted this approach. In the United Kingdom, fisheries compensation has increasingly been structured through regulator-supported and independently governed frameworks, funded by industry but separated from individual developers. Denmark and Germany embed fisheries compensation within national permitting and regulatory systems, while the Netherlands applies centrally defined compensation principles, particularly where displacement or cumulative impacts occur. These models have reduced disputes, improved predictability, and supported long-term coexistence between offshore wind and fisheries.
A comparable governance principle can also be observed in North America through bodies such as the Gulf of Maine Council on the Marine Environment. While not a compensation authority, the Council provides a strong precedent for addressing fisheries and ocean-use interactions through government-led, independent, science-based frameworks, rather than bilateral arrangements between private actors. Its role in coordinating fisheries sustainability, marine environmental protection, and multi-use ocean planning across jurisdictions illustrates the value of separating impact assessment and management from individual commercial interests-an approach directly relevant to fisheries compensation for offshore wind.
Based on international practice, a fisheries' compensation scheme should apply clear and objective eligibility criteria, including: demonstrable historical fishing activity in affected areas (e.g. logbooks, VMS/AIS, landings data); a clear linkage between offshore wind activities and material impacts; proportionality to avoid minor or speculative claims; inclusivity across fleet

segments where activity can be evidenced; and recognition of cumulative impacts from multiple offshore developments.
Valuation methodologies should be standardised, transparent, and evidence-based, typically linking compensation to demonstrable income loss or increased operational costs using historical data. Different approaches should apply to temporary construction impacts versus long-term or permanent displacement, with safeguards to avoid double compensation. International best practice also supports periodic review of valuation assumptions and the use of independent assessment and dispute-resolution mechanisms.
Separating compensation from direct developer-fisheries financial relationships helps preserve trust and long-term coexistence. Developers remain responsible for avoiding, minimising, and mitigating impacts through project design and engagement, while compensation decisions are made through a neutral, transparent process. We therefore recommend that CNSOER and governments advance a fisheries' compensation framework that is centrally or independently administered, consistently applied, and aligned with international offshore wind and marine governance best practice.

The CNSOER welcomes your suggestions and feedback on the fees for bid submissions and successful bidders.

We provide the following feedback on the proposed bid submission and license issuance fees, with the objective of ensuring that the Call for Bids framework promotes credible participation, effective competition, and timely offshore wind development. While we recognise the importance of ensuring that participants in the Call for Bids process are serious, credible, and capable of delivering offshore wind projects, we recommend that the proposed non-refundable bid submission fee be reconsidered in favour of a guarantee-based or refundable deposit structure, particularly given the early-stage and emerging nature of the offshore wind market in Nova Scotia.

Offshore wind development differs fundamentally from offshore oil and gas. In offshore wind-especially in emerging markets-early-stage development is often undertaken by smaller, highly specialised developers that assume significant upfront risk to identify sites, undertake early environmental and technical studies, initiate stakeholder engagement, and de-risk projects to a level that later attracts utilities, infrastructure funds, and institutional investors. A high, non-refundable fee at the bid stage risks creating a material barrier to entry for these early-stage developers, reducing competition and potentially excluding some of the most capable and innovative market participants.

International offshore wind leasing best practice demonstrates that bidder seriousness is more effectively ensured through financial guarantees, staged payments, and milestone enforcement, rather than upfront sunk costs. Leading seabed managers such as The Crown Estate and Crown Estate Scotland do not require large non-refundable bid submission fees. Instead, they rely on robust pre-qualification processes, post-award option or rental payments, and clearly defined delivery milestones, with termination rights or forfeiture mechanisms where progress is not demonstrated. This guarantee-based approach is not unique to the United Kingdom; similar models relying on bid bonds, bank guarantees, and milestone enforcement-rather than large non-refundable bid fees-are also applied in offshore wind allocation processes in the Netherlands, Denmark, and Germany, reinforcing this as established international best practice.

A guarantee-based structure-such as a bid bond, parent company guarantee, or refundable cash deposit-would achieve the same policy objective of filtering out non-serious bidders, without destroying early-stage development capital. This is particularly important as many large institutional investors and strategic offshore wind players do not commit capital prior to seabed award, preferring phased investment aligned with risk reduction. A non-refundable fee model may therefore unintentionally deter both early-stage developers and later-stage capital from participating.

To address concerns around speculation, a guarantee-based approach should be paired with clear, enforceable development

milestones embedded in the land tenure process, as is common in international offshore wind regimes. In other jurisdictions, these milestones typically include time-bound requirements for site investigations and surveys, submission of environmental impact assessments, progression of permitting and grid connection applications, and evidence of continued financial and organizational capability. Failure to meet these milestones within defined timeframes can result in escalation measures, including drawdown of financial guarantees, reduction of site rights, or termination of the license or option agreement. This performance-based model, used in markets such as the UK, Denmark, Germany, and the Netherlands, ensures seriousness through demonstrated delivery and progress, rather than participation alone.

The CNSOER welcomes your suggestions and feedback on considerations and adherence to the principles listed in the Accord Acts.	We support the inclusion of equity and participation objectives within the legislative framework and emphasize the importance of practical implementation. This can be achieved by providing clear direction on how such principles will be assessed in bid evaluations, clearly defining under-represented groups, and offering adequate resources through participant funding and technical assistance. Commitments should be enforceable through licence conditions with ongoing reporting to ensure accountability, and the framework should draw on proven approaches such as Indigenous procurement programs and supplier diversity initiatives in Canada. In relation to fishing activities, we recommend requiring comprehensive fishing impact assessments within bid submissions that demonstrate meaningful engagement with fishing interests, quantify potential effects, and identify concrete mitigation measures, alongside including fishing community representation in evaluation processes to strengthen trust and project resilience.

The CNSOER welcomes your suggestions and feedback on possible considerations for community benefits programs related to offshore wind development.

A robust and well-designed community benefits framework is essential to the successful development of offshore wind in Nova Scotia, and the Province should play an active role in shaping and coordinating this framework. Offshore wind projects are long-term assets with multi-decade interactions with coastal and rural communities, and a provincial role helps ensure that community benefits are consistent, transparent, and equitably distributed, rather than unevenly negotiated on a project-by-project basis.
Nova Scotia already has relevant experience to build upon from onshore renewable energy projects, where community benefit agreements, local funds, and workforce development commitments are well established. Onshore wind projects in the province have supported community benefit funds, training and apprenticeship programs, and partnerships with local institutions such as Nova Scotia Community College. These existing models provide a strong foundation that can be adapted and scaled for offshore wind, recognising the larger project size, longer timelines, and more complex marine interfaces involved.
International offshore wind experience further demonstrates how community benefits can be embedded in practical, locally relevant ways. In several European markets, offshore wind developers have successfully integrated local fishing vessels and crews into operations and maintenance (O&M) activities, such as crew transfer, guard vessel duties, environmental monitoring support, and logistics. This approach has helped retain economic activity in coastal communities, provided alternative or supplementary income streams for fishers, and improved mutual understanding between sectors. While not universally applicable, these examples show that coexistence and community benefit can be achieved through pragmatic operational integration, rather than purely financial compensation.
Given Nova Scotia's particularities-strong coastal identities, a skilled fisheries workforce, strategic ports, and an energy transition underway-the community benefits framework should prioritise durable, place-based benefits, including:

- Workforce development and transition pathways, including funded training places, apprenticeships, and marine safety and technical upskilling for offshore wind, building on existing provincial programs and institutions.
- Local and regional supply chain participation, especially in ports, marine services, fabrication, logistics, and O&M, with realistic requirements aligned to market maturity.
- Community benefit funds with clear governance structures, transparent allocation criteria, and long-term funding horizons, building on precedents from onshore renewables.
- Meaningful Indigenous participation, including opportunities for economic participation, capacity building, and long-term partnership, aligned with provincial and federal reconciliation objectives.

- Operational synergies with existing ocean users, where safe and appropriate, such as the use of local vessels and services during construction and O&M, informed by international best practice.

Finally, we recommend that CNSOER and governments define core principles for community benefits programs, including additionality (benefits are incremental to existing obligations), transparency and reporting, consistency across projects, and longevity over the full project lifecycle. Embedding these principles within licence conditions and monitoring requirements would provide clarity to developers, certainty to communities, and confidence that offshore wind development delivers lasting, shared value for Nova Scotia.

Research from the Northeast Grid Planning Forum describes a spectrum of community benefit models ranging from limited to more substantive levels of participation. These include in-kind benefits such as facilities or services with minimal community control; community benefit funds that provide financial resources for locally determined priorities with some discretion over allocation; direct ratepayer benefits such as bill credits or reduced rates, which can be particularly meaningful for low-income households but require coordination with utilities; and ownership participation, which offers the highest level of long-term value, governance influence, and revenue sharing, while also demanding greater capital and institutional capacity. This spectrum is not static, and communities may move toward more advanced models as their experience and resources grow. Accordingly, we recommend allowing flexibility to match benefit approaches to local circumstances, providing tiered support with greater assistance for more complex arrangements, establishing enabling tools for ownership participation such as financing mechanisms, federal partnerships, and standardized legal structures, and piloting innovative models in select projects to support learning and adaptation.

The CNSOER welcomes your suggestions and feedback on possible terms and conditions for the draft Submerged Land Licence.

We generally agree with the inclusion of clear terms and conditions in the draft Submerged Land Licence (SLL), including provisions related to licence duration, milestones, coexistence, monitoring, and community benefits. Our principal feedback relates to the timing and structure of seabed lease payments, as this has a material impact on project bankability and early-stage market participation, particularly in an emerging offshore wind jurisdiction such as Nova Scotia.

Seabed lease payment start date

We recommend that seabed rental payments should not commence earlier than the start of construction, rather than during the early development and consenting phase. The pre-construction period in offshore wind is characterised by high uncertainty, long timelines, and substantial upfront expenditure on surveys, environmental studies, permitting, and stakeholder engagement, with no guarantee that a project will ultimately reach construction. Introducing fixed annual seabed rent during this phase adds financial burden at the point of highest risk, without materially improving delivery outcomes.

This approach is consistent with practice in several early or emerging offshore wind markets, where governments have deliberately avoided seabed lease costs during development to encourage entry and project maturation. For example, in Italy, offshore wind projects are not subject to seabed lease payments during the development and permitting phase, reflecting a policy choice to prioritise de-risking and market formation over early revenue collection. Similar logic has been applied in other nascent markets, where cost recovery and public value capture are deferred until construction or operation, when project viability is clearer.

By contrast, in more mature markets, early-stage seabed payments are typically paired with very strong permitting certainty or government-led site preparation. Where that is not the case, deferring rent until construction has proven to be a more effective way to attract capable developers while still safeguarding the public interest.

Comparison with other jurisdictions

The proposed annual rental of CAD 1,500/km²/year prior to electricity production should therefore be considered carefully in light of international practice:

- In the United States, seabed rent is payable post-lease award, but the government-led site preparation and permitting framework significantly reduces early-stage risk relative to emerging markets.
- In the United Kingdom, payment structures vary, but are typically linked to option agreements, milestones, or capacity-based payments rather than fixed early development rent, with strong termination rights if progress is not made.
- In Australia, offshore wind regimes rely primarily on application

fees and regulatory levies, rather than simple per-km² seabed rent during early development.

Taken together, these examples support the view that early-stage seabed rent is not a prerequisite for preventing speculation, provided robust milestones and termination rights are in place.

Royalties once electricity is generated

With respect to levies or royalties payable once electricity production begins, we support the principle of public value capture at the operational stage. We recommend, however, considering a differentiated royalty structure, with lower rates for electricity sold locally (e.g. within Nova Scotia or Atlantic Canada) and higher rates for electricity exported to other jurisdictions. This would better align the fiscal regime with policy objectives around affordability, decarbonisation, and local economic benefit, while still ensuring an appropriate return to the public once projects are operational.

In summary, we recommend that the SLL adopt a staged seabed payment approach, with no rental payments prior to the start of construction, strong milestone enforcement during development to deter speculation, and a royalty framework that explicitly incentivises local electricity supply. This structure would align Nova Scotia with international best practice for early offshore wind markets and support the development of a competitive, deliverable project pipeline.

The CNSOER welcomes your suggestions and feedback on considerations for a Participant Funding Program.	We commend CNSOER for providing participant funding to support inclusive engagement in complex regulatory processes that can otherwise exclude stakeholders due to technical, financial, and capacity barriers. To enhance its effectiveness, we recommend expanding eligible expenses to include technical, legal, fisheries, community engagement, translation, and capacity-building support, and designing the program with clearly defined eligible recipients, streamlined applications, reasonable funding caps, advance funding where possible, proportionate accountability, and transparent reporting on funding decisions.

The CNSOER welcomes any additional feedback and comments,.

Pre-Qualification Consortia

Finally, we recommend that the Call for Bids allows for flexibility within pre-qualified consortia. Specifically, a pre-qualified consortium should be permitted to replace one of its members if that member withdraws, provided that the replacement entity demonstrably meets the same relevant criteria as the departing member, even if the replacement was not part of the original pre-qualification process. This approach would avoid the need to create a new consortium while maintaining the integrity of the qualification standards. Given the long development timelines inherent to offshore wind and the potential for corporate or strategic changes during 2026, such flexibility would enhance resilience without compromising fairness or rigor in the process. Given the limited timeframe for partnership formation and for substantiating multiple qualification requirements, we recommend allowing bidders to prequalify at this stage on the basis of a single core criterion, such as technical capability.

Pre-Qualification Financial Criteria

We recognize the rationale for financial screening-to deter speculation, ensure credible delivery, and reduce the risk of seabed rights being awarded to proponents that cannot progress projects. However, we believe the current financial pre-qualification thresholds are not well calibrated to the offshore wind development model, particularly at the seabed allocation stage in an emerging market .

Offshore oil and gas, and offshore wind differ materially in the nature and timing of capital at risk. In oil and gas, early-stage lease execution can quickly translate into very high-cost exploration and appraisal activity (including drilling), where the capital required and the downside exposure are substantial and immediate. That dynamic historically supports screening regimes that favour very large balance sheets at the earliest lease stage. By contrast, offshore wind development typically begins as a high-risk, lower absolute capital phase, where value is created by de-risking rather than by deploying large construction capital. Early work is centred on site definition, stakeholder and Indigenous engagement, environmental baseline and permitting strategy, grid and interconnection development, concept selection, and execution planning. In practice, these early-stage risks are often assumed by specialised developers that are structurally set up to run lean, high-uncertainty development programs and advance projects to "ready-to-construct" (or near-FID) before divesting to larger utilities, infrastructure funds, or strategic sponsors that can bring the larger equity and project financing required for construction.

This is a well-established market pattern. For example, Hornsea was originally developed by SMart Wind (a Mainstream Renewable Power / Siemens Project Ventures JV) and later acquired by DONG Energy (now Ørsted). Similarly, Mainstream

Renewable Power sold the 450 MW Neart na Gaoithe (NnG) project "construction-ready" to EDF Renewables in 2018. In the United States, during early stages of the market, large offshore wind players have also scaled their positions through acquisitions and lease assignments rather than solely by being the original auction winners for early federal leases (for example, RES was the auction winner for certain early lease areas, with DONG/Ørsted later taking over/being assigned interests).
In this context, strict standalone balance-sheet thresholds at the seabed allocation stage risk creating an unintended barrier to entry for the category of participant that is most willing and best suited to assume early-stage development risk, particularly in new markets with limited precedent. The likely outcome is reduced competition, fewer credible bids, and potentially slower project maturation if only large balance sheets participate but delay meaningful risk capital deployment until later stages.
We therefore recommend that CNSOER consider financial qualification mechanisms that are more closely linked to the obligations and risk profile of the seabed-stage work program, for example:

- Bid bonds / refundable deposits / performance security sized to the early-stage obligations (with clear forfeiture/termination consequences for non-performance), rather than a high fixed balance-sheet bar at entry; and
- Milestone-based step-ups in security and/or financial requirements as projects advance (e.g., at key permitting milestones), aligning financial assurance with increasing commitment and reduced uncertainty.

This approach preserves CNSOER's objectives of seriousness and delivery confidence, while better reflecting offshore wind market structure and enabling a broader, more competitive pool of capable developers to progress projects to a stage where larger balance sheets can efficiently enter and finance construction.

Bidding Results

Finally, we note and support the proposed limitation that bidders are only allowed a maximum of one site per wind energy area, and a maximum of two sites in total. This measure can help promote competition, prevent excessive concentration of seabed rights, and discourage speculative behaviour. In combination with a guarantee-based fee structure, such limits would further ensure that awarded sites are held by proponents with both the capability and intent to progress projects in a timely and responsible manner.

Date of Delivery and Route to Market

We recommend that date of delivery and route to market be explicitly incorporated as core evaluation criteria in the Call for Bids, with clear scoring weight and documentary requirements.

In offshore wind, the principal risk at the seabed allocation stage is not only whether a bidder can secure site rights, but whether the project has a credible and executable pathway to revenue and a realistic delivery schedule. Bids that depend on uncertain future policy instruments, unconfirmed offtake frameworks, or speculative grid solutions can appear attractive on headline metrics yet ultimately delay deployment, reduce competitive tension, and tie up scarce seabed capacity.

Accordingly, CNSOER should consider prioritising bids that demonstrate:

- A defined route to market (e.g., a credible offtake strategy aligned to existing or clearly identified procurement mechanisms), with evidence of counterpart engagement and a realistic contracting pathway; and
- A near-term, deliverable schedule, supported by a concrete development plan, permitting strategy, and key enabling assumptions (e.g., grid/interconnection pathway and critical path milestones).

Conversely, bids with longer-dated delivery profiles and/or material dependencies on market reforms, future procurement rounds, or other external preconditions should be scored accordingly to reflect the higher risk of non-delivery within the intended policy timeframe.

A criterion structured in this way would better align seabed awards with CNSOER's objectives of timely, investable projects, while ensuring that seabed rights are allocated to proponents with the clearest line of sight to execution rather than to proposals with uncertain long-term dependencies

**Attach your comments here -
Microsoft Word or Adobe PDF.**

1. Identifying parcels within the government designated Wind Energy Areas

Governments have selected Sydney Bight, French Bank, and Middle Bank for consideration in this offshore wind Call for Bids. Within these wind energy areas, the CNSOER will be designing parcels based on feedback from Indigenous groups and rights holders, the fishing sector, the public, industry, government departments, and other interested stakeholders, as well as nominations from potential wind developers. The parcel design will be guided by the following details from governments Strategic Direction letter:

- All identified parcels that are recommended to be included in the Call for Bids should have a cumulative generating capacity of up to approximately 3000 megawatts (MW) with the possibility up to 5000 megawatts (MW) based on results of this process. These parcels will enable the potential issuance of multiple Submerged Land Licences.

- Parcel identification should consider and balance the following factors:
  - proximity to shore (prioritizing parcels *closer to shore);*
  - *orientation with prevailing wind direction, to the extent*
  - existing onshore tar
  - existing port infrastructure, and/or transmission s
  - interactions with existing ocean users and activities, including the fishing and seafood industries;
  - potential for adverse impacts to any established or asserted Aboriginal and treaty rights;
  - existing and/or future navigation lanes or corridors;
  - sensitive benthic habitats;
  - important marine and/or identified critical habitat; and
  - any other considerations that the Regulator deems relevant and appropriate.

- The spatial extent of identified parcels should be based on a moderate MW/ square km (km2) density and include a buffer to accommodate for potentially unsuitable areas for project development.

- Parcels should consider future opportunities for project expansion and/or multiple developers operating simultaneously within a Wind Energy Area. The potential for future parcels to be identified in subsequent years (up to annually for the next five years) should also be a planning consideration.

- Specific details for the following designated Wind Energy Areas should be taken into consideration:
  - Sydney Bight:
    - At least one (1) parcel should be identified in Sydney Bight.
    - Parcel identification should focus on areas within the Wind Energy Area that are technically suitable for fixed-bottom offshore wind development.
    - The parcel should be large enough to accommodate a project with a generating capacity up to 500 MW.
  - Middle Bank
    - At least two (2) parcels should be identified on Middle Bank.
    - Each parcel should be large enough to accommodate projects with generating capacities of up to 1,000 MW (2,000 MW total initially, with the potential for additional capacity to be considered upon review).
  - French Bank
    - At least one (1) parcel should be identified on French Bank.
    - Parcel identification should focus on areas within the Wind Energy Area that are technically suitable for floating offshore wind development.
    - The parcel should leave a buffer on either side of the existing, but abandoned, pipeline corridor that runs through the Wind Energy Area.
    - The parcel should be large enough in spatial area to accommodate a project with a generating capacity of up to 500 MW.

Please note that the CNSOER retains the authority to accept nomination for parcels but any nominations that are received will still be assessed against the factors described above and be located within the three identified Wind Energy Areas. To nominate parcels within these Wind Energy Areas, please use the offshore wind nomination form.

The CNSOER welcomes your suggestions and feedback on the government identified Wind Energy Areas (Sydney Bight, Middle Bank, and French Bank) and the factors the CNSOER will use to design parcels within those Wind Energy Areas.

[redacted] **support the Strategic Direction's proposed approach** and agree with the factors identified for defining Wind Energy Areas and designing parcels. These factors are appropriate and consistent with international best practices for offshore wind development.

We recommend that parcels be sufficiently large, as experience shows that significant portions of a lease area may later be excluded following detailed geophysical, geotechnical, environmental, and engineering surveys due to seabed conditions, technical constraints, or competing uses. **Larger initial parcels help preserve project viability after these exclusions**.

Wind resource quality should remain a primary consideration, as higher wind speeds and lower turbulence directly support improved energy yield and lower levelized cost of electricity for end users. **Water depth** is also a critical parameter, as it directly influences the choice between fixed-bottom and floating foundation technologies. While the Strategic Direction appropriately **prioritizes areas technically suitable for fixed-bottom** offshore wind development in Sydney Bight, water depths exceeding approximately 55-60 metres often challenge the economic viability of fixed-bottom solutions unless wind conditions, seabed characteristics, and local supply chain maturity are exceptional. Given the uncertainty on seabed conditions until on-site surveys are conducted and current state of local supply chain development, this consideration is particularly relevant.

In this context, we recommend that the parcel configuration for Sydney Bight be slightly revisited, as **modest adjustments to the layout** could materially **reduce average water depths**. If extended by 2,5 km closer to shore, over 300 MW of additional fixed-bottom capacity could be considered. Such refinements could have a **significant positive impact** on foundation feasibility and, ultimately, on reducing the **cost of electricity** for Canadian consumers.

Proximity to electricity demand centres and coordination with transmission planning, including both industrial and residential load nodes, is also important to reduce transmission costs, grid losses, and overall system integration complexity. It is crucial that the development of new transmission infrastructure matches the offshore wind project timeline to avoid commissioning delays.

Finally, we suggest that a **minimum feasibility screening** of geotechnical conditions be applied early in the parcel design process to avoid allocating areas with clearly prohibitive seabed characteristics that could prevent viable foundation installation.

Finally, we emphasize that early and ongoing **stakeholder engagement and validation** are critical to the successful design of Wind Energy Areas and parcels. This should include meaningful engagement with Indigenous Peoples, fishing interests, coastal communities, other marine users, as well as relevant environmental authorities and conservation organizations, to identify ecological sensitivities, reduce potential conflicts, and support responsible and socially acceptable offshore wind development.

2. Potential evaluation criteria for bids submitted as part of the offshore wind Call for Bids process

- Bid submission categories that the CNSOER is considering include:
  - Technical Expertise and Project Delivery Capacity
    - Project Experience
    - Project Plan
    - Pre-feasibility Study

- Financial Strength and Project Delivery Readiness
  - Net Assets and Equity Ratio or Funds Under Management
  - Financial Track Record
  - Project Financing Plan
- Engagement and Community Benefits
  - Engagement Plan that is inclusive of the Mi'kmaq of Nova Scotia, African Nova Scotian and African Descent communities, and other underrepresented and underserved groups.
  - Local Community Benefits Plan that is inclusive of the Mi'kmaq of Nova Scotia, African Nova Scotian and African Descent communities, and other underrepresented and underserved groups.
- Supply Chain and Workforce Development
  - Supply Chain Development Plan that supports establishing an offshore wind supply chain that is inclusive, diverse, and equitable, creating opportunities for Mi'kmaq of Nova Scotia, African Nova Scotian, and African Descent communities, and other underrepresented and underserved groups.
  - Workforce and Training Plan.
- Environmental Sustainability and Coexistence
  - Coexistence Plan that includes references to existing ocean users and uses.
  - Biodiversity Plan that includes references to proposed measures to protect, conserve, and/or enhance biodiversity.

The CNSOER welcomes your suggestions and feedback on bid submission criteria to be used as part of the Call for Bids process, including specific criteria, criteria weighting, scoring metrics, and evaluation methods.

We generally agree with the proposed approach to bid submission criteria and their use within the Call for Bids process. A clear, transparent, and well-weighted set of criteria is essential to ensure that the process selects proponents that are capable of delivering complex offshore wind projects in a timely, safe, and responsible manner, while maximising long-term benefits for Nova Scotia. In this context, we recommend that the **criteria framework place clear and material emphasis on demonstrable, offshore wind–specific experience** as a core indicator of delivery confidence, whether applied as a qualification requirement, a scored criterion, or a combination of both.

Offshore Wind Technical Expertise and Delivery Capacity

Offshore wind is a highly specialised industry with technical, logistical, financial, and regulatory challenges that differ materially from those encountered in onshore renewables or other offshore infrastructure sectors. These include complex marine construction, harsh metocean conditions, long supply chains, specialised vessels, grid integration at scale, and stringent health, safety, and environmental requirements. Experience gained through the full lifecycle of offshore wind projects (development, consenting, financing, construction, commissioning, and operations) **significantly reduces delivery risk** and increases the likelihood of projects being delivered on time and on budget. Bid criteria that meaningfully value such experience help ensure that awarded projects are realistic, bankable, and deliverable.

International experience demonstrates the value of prioritising offshore wind-specific expertise in competitive seabed and permit allocation processes. In Europe, multiple jurisdictions have embedded offshore wind track record as a central consideration, either through pre-qualification gates, scored capability criteria, or both. The **ScotWind leasing round** is one example, where delivery capability and organisational competence were assessed alongside broader policy objectives, helping balance ambition with credibility and execution realism.

Similarly, offshore wind leasing rounds run by The Crown Estate in **England, Wales, and Northern Ireland** have used robust pre-qualification stages to test bidders' technical capability and relevant offshore wind experience before allowing access to seabed rights. These processes explicitly seek evidence of experience in offshore wind development, consenting management, construction planning, and project delivery, ensuring that only bidders with proven capability can progress.

Other European models reinforce the same principle. In the **Netherlands**, certain offshore wind tenders apply a "comparative test" in which qualitative criteria such as knowledge and experience are scored, with higher rankings awarded to bidders that can demonstrate deeper and more relevant offshore wind track records. **Denmark and Ireland** likewise require bidders to evidence technical and organisational capacity, including offshore wind or closely comparable marine energy experience, as a condition of participation in offshore wind tenders. Across these jurisdictions, the consistent lesson is that offshore wind–specific experience is treated as a prerequisite for credibility and delivery confidence, not merely an optional differentiator.

Applying similar principles in Nova Scotia would support the development of a robust offshore wind sector founded on experience, risk awareness, and operational excellence, while still allowing CNSOER flexibility in how criteria are structured and weighted.

Balancing Local Content with Competitive Pricing

An effective local content and workforce development framework should be grounded in Nova Scotia's inherent strengths and informed by proven international practice. The ScotWind process provides a useful precedent, as **it required supply chain development statements from all applicants but deliberately excluded them from the competitive scoring for seabed awards**, instead converting these commitments into binding contractual obligations once option agreements were executed. This structure avoided a "race to the top" of unrealistic promises, ensured commitments were credible and deliverable, and focused competition on capability and execution. Building on this approach, we recommend identifying Nova Scotia's competitive advantages in ports, marine expertise, shipbuilding and fabrication, and research and education infrastructure; prioritizing multi-value investments such as port upgrades that benefit offshore wind and the broader marine economy; avoiding local content requirements where competitive supply does not exist (e.g., turbine manufacturing or specialized vessels); setting realistic and flexible targets; and drawing on European experience, which has evolved toward emphasizing operations and maintenance bases and workforce training rather than broad manufacturing mandates.

Social and Stakeholders Engagement

In addition to technical and financial capability, we strongly support the inclusion of criteria that assess a **bidder's ability to work constructively with stakeholders** and to build durable public support. Offshore wind projects interact with a wide range of interests, including coastal communities, Indigenous groups, fisheries, regulators, ports, and local supply chains. Demonstrated experience in meaningful engagement, transparent communication, and long-term partnership building is critical to securing social licence and reducing the risk of delays or conflict. Bidders that can evidence successful stakeholder engagement in other jurisdictions should be recognised and rewarded within the evaluation framework.

3. Coexistence

Coexistence of the emerging offshore wind sector and existing and future ocean users in the Canada-Nova Scotia offshore is a priority and should be considered throughout the land tenure process as well as the project lifecycle of any future offshore wind projects.

The CNSOER welcomes your suggestions and feedback on coexistence.

We strongly agree that coexistence between the emerging offshore wind sector and existing and future ocean users in the Canada–Nova Scotia offshore **should be a priority throughout the land tenure process and the full project lifecycle**. Coexistence should be approached as a practical, evidence-based objective, grounded in safety, environmental protection, and long-term ocean stewardship, rather than as an abstract or purely aspirational concept.

Experience from mature offshore wind markets demonstrates that well-designed offshore wind projects can deliver **positive outcomes for marine biodiversity, with indirect benefits to several ocean users**. Foundations, scour protection, and exclusion zones around turbines can act as artificial reef structures, increasing habitat complexity and

local biodiversity. In some regions, reduced seabed disturbance and limitations on certain extractive activities within wind farm areas have contributed to localized ecological recovery, with potential benefits for fisheries sustainability over time. While biodiversity is not itself an “ocean user,” these positive environmental effects can support broader ecosystem services that underpin multiple marine activities.

At the same time, it is important to apply a **realistic and safety-driven lens to coexistence with certain ocean uses**. In particular, full physical coexistence with maritime transport, aviation, and high-intensity tourism activities is often limited in practice due to navigational safety, operational risk, and regulatory constraints. Offshore wind farms are designed as industrial energy assets, and clear spatial planning, safety buffers, and exclusion or routing measures are essential to minimise collision risk and ensure the safety of vessels, crews, and the public. Attempting to force shared use in areas where risks cannot be acceptably managed may undermine both safety and public confidence.

Effective coexistence therefore relies less on universal co-location and more on **early spatial planning, transparent engagement**, and tailored mitigation measures. This includes **early dialogue** with fisheries, shipping interests, ports, Indigenous groups, and regulators; adaptive project design informed by baseline data; and the use of monitoring and adaptive management throughout the project lifecycle. Where coexistence is not feasible, fair and predictable avoidance, mitigation, or compensation mechanisms should be considered as part of a balanced approach.

In this context, we encourage CNSOER to frame coexistence as a structured, risk-based process embedded within marine spatial planning and project assessment, rather than as an expectation that all ocean uses can or should physically coexist within offshore wind areas. Such an approach reflects international best practice, supports safety and environmental integrity, and creates the conditions for offshore wind to develop alongside other ocean uses in a durable and socially acceptable manner.

4. Considerations for fisheries' compensation

The coexistence of the offshore wind industry with existing sectors as well as the continuance of existing activities of ocean users, including the commercial fishing and seafood sectors, are guiding principles for advancing offshore wind in Canada. Nonetheless, there is recognition that future offshore wind development may result in potential impacts to existing ocean users. The CNSOER is seeking feedback on behalf of governments on the considerations for fisheries’ compensation. Governments are developing an approach to fisheries' compensation based on the feedback we receive. Click here to read a document from governments on considerations for fisheries' compensation during Call for Information.

The CNSOER welcomes your suggestions and feedback on behalf of governments on considerations for fisheries' compensation.

We support the recognition by governments and CNSOER that offshore wind development may result in impacts to existing ocean users, including the commercial fishing and seafood sectors, and that fisheries’ compensation is therefore an important component of a responsible offshore wind framework. In this context, we strongly recommend that fisheries’ compensation be delivered through a **government-administered scheme or an independent third-party mechanism**, rather than through direct compensation arrangements between offshore wind developers and fishing interests.

International experience demonstrates that centrally administered or independent compensation frameworks provide greater transparency, consistency, and fairness than bilateral, project-by-project negotiations. Direct compensation arrangements can create unequal outcomes, power imbalances, and prolonged negotiations, while increasing uncertainty for both developers and fishing interests. By contrast, government or independently governed schemes allow for standardized eligibility criteria, valuation methodologies, and oversight, and are more resilient as offshore wind deployment scales.

Several offshore wind jurisdictions have adopted this approach. In the United Kingdom, fisheries compensation has increasingly been structured through regulator-supported and independently governed frameworks, funded by

industry but separated from individual developers. Denmark and Germany embed fisheries compensation within national permitting and regulatory systems, while the Netherlands applies centrally defined compensation principles, particularly where displacement or cumulative impacts occur. These models have reduced disputes, improved predictability, and supported long-term coexistence between offshore wind and fisheries.

A comparable governance principle can also be observed in North America through bodies such as the **Gulf of Maine Council on the Marine Environment**. While not a compensation authority, the Council provides a strong precedent for addressing fisheries and ocean-use interactions through **government-led, independent, science-based frameworks**, rather than bilateral arrangements between private actors. Its role in coordinating fisheries sustainability, marine environmental protection, and multi-use ocean planning across jurisdictions illustrates the value of separating impact assessment and management from individual commercial interests—an approach directly relevant to fisheries compensation for offshore wind.

Based on international practice, a fisheries' compensation scheme should apply **clear and objective eligibility criteria**, including: demonstrable historical fishing activity in affected areas (e.g. logbooks, VMS/AIS, landings data); a clear linkage between offshore wind activities and material impacts; proportionality to avoid minor or speculative claims; inclusivity across fleet segments where activity can be evidenced; and recognition of cumulative impacts from multiple offshore developments.

Valuation methodologies should be **standardised, transparent, and evidence-based**, typically linking compensation to demonstrable income loss or increased operational costs using historical data. Different approaches should apply to temporary construction impacts versus long-term or permanent displacement, with safeguards to avoid double compensation. International best practice also supports periodic review of valuation assumptions and the use of independent assessment and dispute-resolution mechanisms.

Separating compensation from direct developer–fisheries financial relationships helps preserve trust and long-term coexistence. Developers remain responsible for avoiding, minimising, and mitigating impacts through project design and engagement, while compensation decisions are made through a neutral, transparent process. We therefore recommend that CNSOER and governments advance a fisheries' compensation framework that is **centrally or independently administered**, consistently applied, and aligned with international offshore wind and marine governance best practice.

5. Proposed fees for all bid submissions and successful bidders

- A one-time nonrefundable fee of CAD 250,000.00 paid by all bidders.
- Successful bidders pay an additional fee of CAD 750,000.00 upon issuance of a submerged land licence.

The CNSOER welcomes your suggestions and feedback on the fees for bid submissions and successful bidders.

We provide the following feedback on the proposed bid submission and license issuance fees, with the objective of ensuring that the Call for Bids framework promotes credible participation, effective competition, and timely offshore wind development. While we recognise the importance of ensuring that participants in the Call for Bids process are serious, credible, and capable of delivering offshore wind projects, we recommend that the proposed **non-refundable bid submission fee be reconsidered in favour of a guarantee-based or refundable deposit structure**, particularly given the early-stage and emerging nature of the offshore wind market in Nova Scotia.

Offshore wind development differs fundamentally from offshore oil and gas. In offshore wind—especially in emerging markets—early-stage development is often undertaken by smaller, highly specialised developers that assume significant upfront risk to identify sites, undertake early environmental and technical studies, initiate stakeholder engagement, and de-risk projects to a level that later attracts utilities, infrastructure funds, and institutional investors.

A high, non-refundable fee at the bid stage risks creating a material barrier to entry for these early-stage developers, reducing competition and potentially excluding some of the most capable and innovative market participants.

International offshore wind leasing best practice demonstrates that bidder seriousness is more effectively ensured through **financial guarantees, staged payments, and milestone enforcement**, rather than upfront sunk costs. Leading seabed managers such as **The Crown Estate** and **Crown Estate Scotland** do not require large non-refundable bid submission fees. Instead, they rely on robust pre-qualification processes, post-award option or rental payments, and clearly defined delivery milestones, with termination rights or forfeiture mechanisms where progress is not demonstrated. This guarantee-based approach is not unique to the United Kingdom; similar models relying on bid bonds, bank guarantees, and milestone enforcement—rather than large non-refundable bid fees—are also applied in offshore wind allocation processes in the **Netherlands, Denmark, and Germany**, reinforcing this as established international best practice.

A guarantee-based structure—such as a bid bond, parent company guarantee, or refundable cash deposit—would achieve the same policy objective of filtering out non-serious bidders, without destroying early-stage development capital. This is particularly important as many large institutional investors and strategic offshore wind players do not commit capital prior to seabed award, preferring phased investment aligned with risk reduction. A non-refundable fee model may therefore unintentionally deter both early-stage developers and later-stage capital from participating.

To address concerns around speculation, a guarantee-based approach should be paired with **clear, enforceable development milestones embedded in the land tenure process**, as is common in international offshore wind regimes. In other jurisdictions, these milestones typically include time-bound requirements for site investigations and surveys, submission of environmental impact assessments, progression of permitting and grid connection applications, and evidence of continued financial and organizational capability. **Failure to meet these milestones** within defined timeframes **can result in escalation measures, including drawdown of financial guarantees, reduction of site rights, or termination of the license or option agreement**. This performance-based model, used in markets such as the UK, Denmark, Germany, and the Netherlands, ensures seriousness through demonstrated delivery and progress, rather than participation alone.

6. Principles listed in the Accord Acts

The CNSOER is seeking feedback on consideration and adherence to the principles listed under section 98.7 of the federal version of the Accord Act and section 102F of the provincial version of the Accord Act.

These principles are:

- All Canadian corporations and individuals resident in Canada shall have a full and fair opportunity to participate on a competitive basis, including in the course of employment, in the supply of goods and services used in any work or activity related to an offshore renewable energy project.
- Importance shall be given to the development of measures that aim to increase the participation of under-represented groups, including in the course of employment, in the supply of goods and services used in any such work or activity.
- During the submerged land licence issuance process, importance shall be given to the consideration of effects on fishing activities.

The CNSOER welcomes your suggestions and feedback on considerations and adherence to the principles listed in the Accord Acts.

We support the inclusion of equity and participation objectives within the legislative framework and emphasize the importance of practical implementation. This can be achieved by providing clear direction on how such principles will be assessed in bid evaluations, clearly defining under-represented groups, and offering adequate resources through

participant funding and technical assistance. Commitments should be enforceable through licence conditions with ongoing reporting to ensure accountability, and the framework should draw on proven approaches such as Indigenous procurement programs and supplier diversity initiatives in Canada. In relation to fishing activities, we recommend requiring comprehensive fishing impact assessments within bid submissions that demonstrate meaningful engagement with fishing interests, quantify potential effects, and identify concrete mitigation measures, alongside including fishing community representation in evaluation processes to strengthen trust and project resilience.

7. Community Benefits

There are many options and models to be considered when developing a community benefits program. The CNSOER is interested in your suggestions and feedback on how to advance community benefits.

The CNSOER welcomes your suggestions and feedback on possible considerations for community benefits programs related to offshore wind development.

A robust and well-designed **community benefits framework is essential** to the successful development of offshore wind in Nova Scotia, and the Province should play an active role in shaping and coordinating this framework. Offshore wind projects are long-term assets with multi-decade interactions with coastal and rural communities, and a provincial role helps ensure that community benefits are consistent, transparent, and equitably distributed, rather than unevenly negotiated on a project-by-project basis.

Nova Scotia already has relevant experience to build upon from **onshore renewable energy projects**, where community benefit agreements, local funds, and workforce development commitments are well established. Onshore wind projects in the province have supported community benefit funds, training and apprenticeship programs, and partnerships with local institutions such as Nova Scotia Community College. These existing models provide a strong foundation that can be adapted and scaled for offshore wind, recognising the larger project size, longer timelines, and more complex marine interfaces involved.

International offshore wind experience further demonstrates how community benefits can be embedded in practical, locally relevant ways. In several European markets, offshore wind developers have successfully integrated **local fishing vessels and crews into operations and maintenance (O&M) activities**, such as crew transfer, guard vessel duties, environmental monitoring support, and logistics. This approach has helped retain economic activity in coastal communities, provided alternative or supplementary income streams for fishers, and improved mutual understanding between sectors. While not universally applicable, these examples show that coexistence and community benefit can be achieved through **pragmatic operational integration**, rather than purely financial compensation.

Given Nova Scotia's particularities—strong coastal identities, a skilled fisheries workforce, strategic ports, and an energy transition underway—the community benefits framework should prioritise **durable, place-based benefits**, including:

- **Workforce development and transition pathways**, including funded training places, apprenticeships, and marine safety and technical upskilling for offshore wind, building on existing provincial programs and institutions.
- **Local and regional supply chain participation**, especially in ports, marine services, fabrication, logistics, and O&M, with realistic requirements aligned to market maturity.
- **Community benefit funds** with clear governance structures, transparent allocation criteria, and long-term funding horizons, building on precedents from onshore renewables.

- **Meaningful Indigenous participation**, including opportunities for economic participation, capacity building, and long-term partnership, aligned with provincial and federal reconciliation objectives.
- **Operational synergies with existing ocean users**, where safe and appropriate, such as the use of local vessels and services during construction and O&M, informed by international best practice.

Finally, we recommend that CNSOER and governments define **core principles for community benefits programs**, including additionality (benefits are incremental to existing obligations), transparency and reporting, consistency across projects, and longevity over the full project lifecycle. Embedding these principles within licence conditions and monitoring requirements would provide clarity to developers, certainty to communities, and confidence that offshore wind development delivers lasting, shared value for Nova Scotia.

Research from the **Northeast Grid Planning Forum** describes a **spectrum of community benefit models** ranging from limited to more substantive levels of participation. These include in-kind benefits such as facilities or services with minimal community control; community benefit funds that provide financial resources for locally determined priorities with some discretion over allocation; direct ratepayer benefits such as bill credits or reduced rates, which can be particularly meaningful for low-income households but require coordination with utilities; and ownership participation, which offers the highest level of long-term value, governance influence, and revenue sharing, while also demanding greater capital and institutional capacity. This spectrum is not static, and communities may move toward more advanced models as their experience and resources grow. Accordingly, we recommend allowing flexibility to match benefit approaches to local circumstances, providing tiered support with greater assistance for more complex arrangements, establishing enabling tools for ownership participation such as financing mechanisms, federal partnerships, and standardized legal structures, and piloting innovative models in select projects to support learning and adaptation.

8. Terms and conditions to be potentially included in the draft Submerged Land Licence

The CNSOER will consider feedback on any specific timelines and terms and conditions to be included in the draft Submerged Land Licence. A summary of potential terms and conditions that may be included in the Submerged Land Licence is found here. Within this summary document are various items we are looking for suggestions and feedback on.

Governments are supportive of having specific terms and conditions that address the following:

- Principles under section 98.7 of the federal version of the Accord Act and 102F of the provincial version of the Accord Act
- Inclusive engagement and/or participation
- Community Benefits
- Supply Chain and Workforce Development
- Monitoring and Reporting
- Coexistence with existing ocean users and uses
- Duration of a Submerged Land Licence, which must be at least 35 years
- Licence periods and project development milestones

The CNSOER welcomes your suggestions and feedback on possible terms and conditions for the draft Submerged Land Licence.

We generally agree with the inclusion of clear terms and conditions in the draft Submerged Land Licence (SLL), including provisions related to licence duration, milestones, coexistence, monitoring, and community benefits. Our principal feedback relates to the **timing and structure of seabed lease payments**, as this has a material impact on project bankability and early-stage market participation, particularly in an emerging offshore wind jurisdiction such as Nova Scotia.

Seabed lease payment start date

We recommend that **seabed rental payments should not commence earlier than the start of construction**, rather than during the early development and consenting phase. The pre-construction period in offshore wind is characterised by high uncertainty, long timelines, and substantial upfront expenditure on surveys, environmental studies, permitting, and stakeholder engagement, with no guarantee that a project will ultimately reach construction. Introducing fixed annual seabed rent during this phase adds financial burden at the point of highest risk, without materially improving delivery outcomes.

This approach is consistent with practice in several **early or emerging offshore wind markets**, where governments have deliberately avoided seabed lease costs during development to encourage entry and project maturation. For example, in **Italy**, offshore wind projects are not subject to seabed lease payments during the development and permitting phase, reflecting a policy choice to prioritise de-risking and market formation over early revenue collection. Similar logic has been applied in other nascent markets, where cost recovery and public value capture are deferred until construction or operation, when project viability is clearer.

By contrast, in more mature markets, early-stage seabed payments are typically paired with very strong permitting certainty or government-led site preparation. Where that is not the case, deferring rent until construction has proven to be a more effective way to attract capable developers while still safeguarding the public interest.

Comparison with other jurisdictions

The proposed annual rental of **CAD 1,500/km²/year** prior to electricity production should therefore be considered carefully in light of international practice:

- In the **United States**, seabed rent is payable post-lease award, but the government-led site preparation and permitting framework significantly reduces early-stage risk relative to emerging markets.
- In the **United Kingdom**, payment structures vary, but are typically linked to option agreements, milestones, or capacity-based payments rather than fixed early development rent, with strong termination rights if progress is not made.
- In **Australia**, offshore wind regimes rely primarily on application fees and regulatory levies, rather than simple per-km² seabed rent during early development.

Taken together, these examples support the view that **early-stage seabed rent is not a prerequisite for preventing speculation**, provided robust milestones and termination rights are in place.

Royalties once electricity is generated

With respect to levies or royalties payable once electricity production begins, we support the principle of public value capture at the operational stage. We recommend, however, considering a **differentiated royalty structure**, with **lower rates for electricity sold locally** (e.g. within Nova Scotia or Atlantic Canada) and higher rates for electricity exported to other jurisdictions. This would better align the fiscal regime with policy objectives around affordability, decarbonisation, and local economic benefit, while still ensuring an appropriate return to the public once projects are operational.

In summary, we recommend that the SLL adopt a **staged seabed payment approach**, with no rental payments prior to the start of construction, strong milestone enforcement during development to deter speculation, and a royalty framework that explicitly incentivises local electricity supply. This structure would align Nova Scotia with international best practice for early offshore wind markets and support the development of a competitive, deliverable project pipeline.

9. Participant Funding Program

The CNSOER is working on establishing a Participant Funding Program. For this offshore wind Call for Information process, there will be an initial Participant Funding Program offered that will cover some reimbursement of items. Learn more about this initial Participant Funding Program by visiting our website. We welcome feedback on what should be considered and included in a Participant Funding Program, which will be established in 2026.

The CNSOER welcomes your suggestions and feedback on considerations for a Participant Funding Program.

We commend CNSOER for providing participant funding to support inclusive engagement in complex regulatory processes that can otherwise exclude stakeholders due to technical, financial, and capacity barriers. To enhance its effectiveness, we recommend expanding eligible expenses to include technical, legal, fisheries, community engagement, translation, and capacity-building support, and designing the program with clearly defined eligible recipients, streamlined applications, reasonable funding caps, advance funding where possible, proportionate accountability, and transparent reporting on funding decisions.

10. Additional feedback and comments

The CNSOER will consider feedback and comments on details shared in the Strategic Direction letter from governments that are not already covered in the above sections, including feedback on the broader regulatory process for offshore wind projects.

The CNSOER welcomes any additional feedback and comments,.

Pre-Qualification Consortia

Finally, we recommend that the Call for Bids allows for **flexibility within pre-qualified consortia**. Specifically, a **pre-qualified consortium should be permitted to replace one of its members if that member withdraws**, provided that the replacement entity demonstrably meets the same relevant criteria as the departing member, even if the replacement was not part of the original pre-qualification process. This approach would avoid the need to create a new consortium while maintaining the integrity of the qualification standards. Given the long development timelines inherent to offshore wind and the potential for corporate or strategic changes during 2026, such flexibility would enhance resilience without compromising fairness or rigor in the process.

Given the limited timeframe for partnership formation and for substantiating multiple qualification requirements, we recommend allowing bidders to prequalify at this stage on the basis of a single core criterion, such as technical capability.

Pre-Qualification Financial Criteria

We recognize the rationale for financial screening—to deter speculation, ensure credible delivery, and reduce the risk of seabed rights being awarded to proponents that cannot progress projects. However, we believe the current financial pre-qualification thresholds are not well calibrated to the offshore wind development model, particularly at the seabed allocation stage in an emerging market.

Offshore oil and gas, and offshore wind differ materially in the nature and timing of capital at risk. In oil and gas, early-stage lease execution can quickly translate into very high-cost exploration and appraisal activity (including drilling), where the capital required and the downside exposure are substantial and immediate. That dynamic historically supports screening regimes that favour very large balance sheets at the earliest lease stage.

By contrast, offshore wind development typically begins as a **high-risk, lower absolute capital** phase, where value is created by de-risking rather than by deploying large construction capital. Early work is centred on site definition, stakeholder and Indigenous engagement, environmental baseline and permitting strategy, grid and interconnection development, concept selection, and execution planning. In practice, these early-stage risks are often assumed by specialised developers that are structurally set up to run lean, high-uncertainty development programs and advance projects to "ready-to-construct" (or near-FID) before divesting to larger utilities, infrastructure funds, or strategic sponsors that can bring the larger equity and project financing required for construction.

This is a well-established market pattern. For example, Hornsea was originally developed by SMart Wind (a Mainstream Renewable Power / Siemens Project Ventures JV) and later acquired by DONG Energy (now Ørsted). Similarly, Mainstream Renewable Power sold the 450 MW Neart na Gaoithe (NnG) project "construction-ready" to EDF Renewables in 2018. In the United States, during early stages of the market, large offshore wind players have also scaled their positions through acquisitions and lease assignments rather than solely by being the original auction winners for early federal leases (for example, RES was the auction winner for certain early lease areas, with DONG/Ørsted later taking over/being assigned interests).

In this context, strict standalone balance-sheet thresholds at the seabed allocation stage risk creating an unintended barrier to entry for the category of participant that is most willing and best suited to assume early-stage development risk, particularly in new markets with limited precedent. The likely outcome is reduced competition, fewer credible bids, and potentially slower project maturation if only large balance sheets participate but delay meaningful risk capital deployment until later stages.

We therefore recommend that CNSOER consider financial qualification mechanisms that are more closely linked to **the obligations and risk profile of the seabed-stage work program**, for example:

- **Bid bonds / refundable deposits / performance security** sized to the early-stage obligations (with clear forfeiture/termination consequences for non-performance), rather than a high fixed balance-sheet bar at entry; and
- **Milestone-based step-ups in security and/or financial requirements** as projects advance (e.g., at key permitting milestones), aligning financial assurance with increasing commitment and reduced uncertainty.

This approach preserves CNSOER's objectives of seriousness and delivery confidence, while better reflecting offshore wind market structure and enabling a broader, more competitive pool of capable developers to progress projects to a stage where larger balance sheets can efficiently enter and finance construction.

Bidding Results

Finally, we note and support the proposed limitation that **bidders are only allowed a maximum of one site per wind energy area, and a maximum of two sites in total**. This measure can help promote competition, prevent excessive concentration of seabed rights, and discourage speculative behaviour. In combination with a guarantee-based fee structure, such limits would further ensure that awarded sites are held by proponents with both the capability and intent to progress projects in a timely and responsible manner.

Date of Delivery and Route to Market

We recommend that **date of delivery** and **route to market** be explicitly incorporated as core evaluation criteria in the Call for Bids, with clear scoring weight and documentary requirements.

In offshore wind, the principal risk at the seabed allocation stage is not only whether a bidder can secure site rights, but whether the project has a **credible and executable pathway to revenue** and a **realistic delivery schedule**. Bids that depend on uncertain future policy instruments, unconfirmed offtake frameworks, or speculative grid

solutions can appear attractive on headline metrics yet ultimately delay deployment, reduce competitive tension, and tie up scarce seabed capacity.

Accordingly, CNSOER should consider prioritising bids that demonstrate:

- A **defined route to market** (e.g., a credible offtake strategy aligned to existing or clearly identified procurement mechanisms), with evidence of counterpart engagement and a realistic contracting pathway; and
- A **near-term, deliverable schedule**, supported by a concrete development plan, permitting strategy, and key enabling assumptions (e.g., grid/interconnection pathway and critical path milestones).

Conversely, bids with longer-dated delivery profiles and/or material dependencies on market reforms, future procurement rounds, or other external preconditions should be scored accordingly to reflect the higher risk of non-delivery within the intended policy timeframe.

A criterion structured in this way would better align seabed awards with CNSOER's objectives of timely, investable projects, while ensuring that seabed rights are allocated to proponents with the clearest line of sight to execution rather than to proposals with uncertain long-term dependencies

ARUP

Offshore Wind Call for Information NS25-1R

1. Identifying parcels within the government designated Wind Energy Areas

Governments have selected **Sydney Bight, French Bank, and Middle Bank** for consideration in this offshore wind Call for Bids. Within these wind energy areas, the CNSOER will be designing parcels based on feedback from Indigenous groups and rights holders, the fishing sector, the public, industry, government departments, and other interested stakeholders, as well as nominations from potential wind developers. The parcel design will be guided by the following details from governments Strategic Direction letter:

- All identified parcels that are recommended to be included in the Call for Bids **should have a cumulative generating capacity of up to approximately 3,000 megawatts (MW) with the possibility up to 5,000 megawatts (MW) based on results of this process**. These parcels will enable the potential issuance of multiple Submerged Land Licences.

- Parcel identification should consider and balance the following factors:
    - proximity to shore (prioritizing parcels closer to shore);
    - orientation with prevailing wind direction, to the extent possible;
    - existing onshore grid infrastructure;
    - existing port infrastructure, and/or transmission options;
    - interactions with existing ocean users and activities, including the fishing and seafood industries;
    - potential for adverse impacts to any established or asserted Aboriginal and treaty rights;
    - existing and/or future navigation lanes or corridors;
    - sensitive benthic habitats;
    - important marine and/or identified critical habitat; and
    - any other considerations that the Regulator deems relevant and appropriate.

- The spatial extent of identified parcels should be based on a moderate MW/ square km (km^2) density and include a buffer to accommodate for potentially unsuitable areas for project development.

- Parcels should consider future opportunities for project expansion and/or multiple developers operating simultaneously within a Wind Energy Area. The potential for future parcels to be identified in subsequent years (up to annually for the next five years) should also be a planning consideration.

- Specific details for the following designated Wind Energy Areas should be taken into consideration:
    - Sydney Bight:
        - At least one (1) parcel should be identified in Sydney Bight.
        - Parcel identification should focus on areas within the Wind Energy Area that are technically suitable for fixed-bottom offshore wind development.
        - The parcel should be large enough to accommodate a project with a generating capacity up to 500 MW.
    - Middle Bank
        - At least two (2) parcels should be identified on Middle Bank.
        - Each parcel should be large enough to accommodate projects with generating capacities of up to 1,000 MW (2,000 MW total initially, with the potential for additional capacity to be considered upon review).
    - French Bank
        - At least one (1) parcel should be identified on French Bank.
        - Parcel identification should focus on areas within the Wind Energy Area that are technically suitable for floating offshore wind development.
        - The parcel should leave a buffer on either side of the existing, but abandoned, pipeline corridor that runs through the Wind Energy Area.
        - The parcel should be large enough in spatial area to accommodate a project with a generating capacity of up to 500 MW.

Please note that the CNSOER retains the authority to accept nomination for parcels but any nominations that are received will still be assessed against the factors described above and be located within the three identified Wind Energy Areas. To nominate parcels within these Wind Energy Areas, please use the offshore wind nomination form.

The CNSOER welcomes your suggestions and feedback on the government identified Wind Energy Areas (Sydney Bight, Middle Bank, and French Bank) and the factors the CNSOER will use to design parcels within those Wind Energy Areas.

Parcel identification should follow a structured and transparent methodology that reflects global best practice, combining multi-factor constraint analysis with Levelized Cost of Energy (LCOE) modelling. This approach ensures optimal areas for offshore wind farm deployment are selected based on economic, environmental, and social considerations.

Industry best practice methodology, grounded in geospatial modelling and site assessment, can be summarised in four key steps:

Identify Constraints

- Catalogue all potential constraints to offshore wind development which may include several additional factors beyond those currently considered, including but not limited to: existing offshore infrastructure (oil & gas pipelines, wells, platforms, subsea cables), shipping routes or traffic separation schemes, marine protected areas or areas of sensitive benthic habitats, existing usage such as fishing or tourism, military training areas, as well as any additional input received throughout this Call for Information.
- The spatial extent of these constraints should be accurately defined and incorporated into a geospatial model.

Classify Constraints

- Designate identified constraints as either: *Hard* which completely prohibit development or *Soft* which limit or constrain development but are not exclusionary.
- Areas subject to *Hard* constraints should be excluded from further consideration.

Conduct LCOE Analysis

- Perform a spatially resolved LCOE assessment across the search domain. LCOE is influenced by multiple factors, including but not limited to: water depth, turbine nameplate capacity and operating characteristics, wind resource, met ocean conditions, seabed conditions, foundation technology type, distance to shore, distance to port, distance to grid connection point, operations & maintenance strategy, vessel types, development timelines, wind farm expected operational lifetime, and project financing costs.

Integrate and Optimise

- Combine constraint mapping with LCOE outputs in a quantitative model to identify parcels of interest. Areas of low soft constraint impact and low LCOE represent optimal locations for offshore wind development.

Figure 1-1 demonstrates this process using outputs from Arup's proprietary offshore wind site identification and planning tool, SCALE, including site identification from our internal study of the Nova Scotia Offshore Wind Energy Areas completed in November 2025. SCALE is an industry leading platform, deployed globally on over 18 offshore wind projects, designed specifically for site identification and parcel definition.

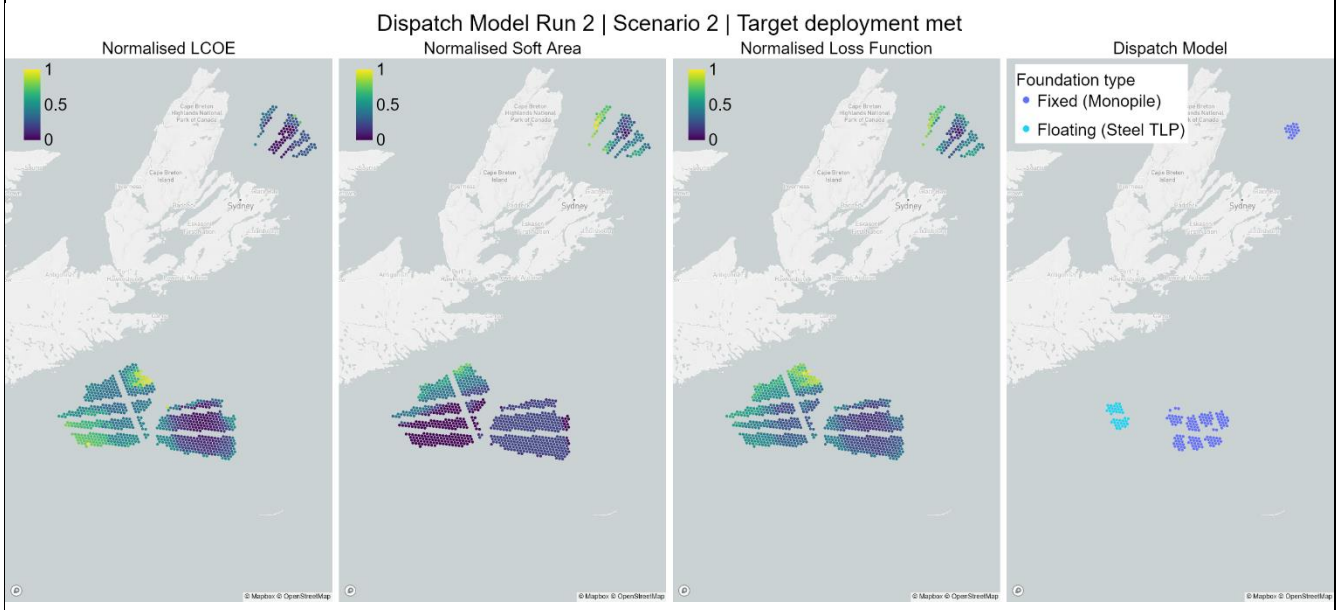


Figure 1-1 SCALE outputs from our internal study of the Nova Scotia WEAs showing LCOE, Soft Constraints and deployment recommendations.

SCALE's flexibility enables the definition of a wide range of input constraints and output targets, including technology type (fixed or floating foundations), wind farm density, and overall deployment objectives such as the number of wind farms and total installed capacity. This adaptability makes SCALE uniquely suited to support CNSOER in defining specific parcels within designated Wind Energy Areas, aligned with desired criteria for technology and capacity.

Building on our global experience in offshore wind site selection, combined with local knowledge and insights from our recent internal study of Nova Scotia's Wind Energy Areas, we are well positioned to provide robust, data-driven recommendations.

We would welcome the opportunity to engage further with CNSOER and explore how our expertise and proprietary tools can help deliver a transparent, optimised approach to parcel identification for Sydney Bight, French and Middle Bank.

2. Potential evaluation criteria for bids submitted as part of the offshore wind Call for Bids Process

- Bid submission categories that the CNSOER is considering include:
    - Technical Expertise and Project Delivery Capacity
        - Project Experience
        - Project Plan
        - Pre-feasibility Study
    - Financial Strength and Project Delivery Readiness
        - Net Assets and Equity Ratio or Funds Under Management
        - Financial Track Record
        - Project Financing Plan
    - Engagement and Community Benefits
        - Engagement Plan that is inclusive of the Mi'kmaq of Nova Scotia, African Nova Scotian and African Descent communities, and other underrepresented and underserved groups.
        - Local Community Benefits Plan that is inclusive of the Mi'kmaq of Nova Scotia, African Nova Scotian and African Descent communities, and other underrepresented and underserved groups.
    - Supply Chain and Workforce Development
        - Supply Chain Development Plan that supports establishing an offshore wind supply chain that is inclusive, diverse, and equitable, creating opportunities for Mi'kmaq of Nova Scotia, African Nova Scotian, and African Descent communities, and other underrepresented and underserved groups.
        - Workforce and Training Plan.
    - Environmental Sustainability and Coexistence
        - Coexistence Plan that includes references to existing ocean users and uses.
        - Biodiversity Plan that includes references to proposed measures to protect, conserve, and/or enhance biodiversity.

The CNSOER welcomes your suggestions and feedback on bid submission criteria to be used as part of the Call for Bids process, including specific criteria, criteria weighting, scoring metrics, and evaluation methods.

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Objectives

In determining appropriate evaluation criteria, criteria weighting, scoring metrics and evaluation methods, a fundamental requirement is having clear objectives for the Call for Bids, and an understanding of what success looks like.

Being explicit about these aims enables the process to be structured in a way that maximizes the likelihood of achieving the intended outcomes and delivering a successful Call for Bids. A "**working backwards**" approach; from objectives (what do we want to achieve?), to evaluation criteria (how do we ensure high scores reflect those objectives?), to submission requirements (what information is needed to assess them?), helps ensure the process is deliberately designed to deliver the intended outcomes.

In terms of objectives, CNSOER may have several competing or complementary objectives, these may include things such as:

- Awarding a specific number of offshore wind areas (this appears to have been defined)
- Generating maximum financial return from the seabed assets
- Awarding areas that are most likely to be built out – due to the nature of the area itself
- Awarding areas that are most likely to be built out – due to the experience, track record, nature of and/ or commitments from the developer
- Attract the highest possible number of applicants
- Attract applicants with Canadian operations
- Ensure areas awarded included meaningful engagement and consultation opportunities for Indigenous peoples.
- Ensure areas awarded will be developed with in line or exceeding environmental best practice
- Ensure community benefits will be realised from areas awarded
- Etc.

There are many potential competing objectives that will need to be balanced through the design and implementation of the Call for Bids, being clear on what these will drive the design of the Call for Bids allowing decisions to be made and providing rationale for the evaluation criteria and criteria weighting.

Evaluation criteria

In terms of the specific evaluation criteria, the categories listed by CNSOER are sensible and relatively standard across leasing rounds that Arup are familiar with.

Some additional areas to consider include:

- Health and Safety record including any previous breaches of Health and Safety legislation.
- Specific experience of bidding parties related to objectives, any specific experience that is necessary or desirable.
- Proposed development budget, what are they committed to spending, is it sufficient, does their financing plan support this.

As well as specific criteria it would be beneficial to consider the specific questions or specific information requests as part of the Call for Bids. Asking for rather general, potentially long documents will make the evaluation process more lengthy, complex and subjective. Being specific in the asks, with an understanding that the submissions will represent an early stage of project development, will allow a more efficient and potentially successful evaluation process.

Scoring metrics

Scoring is likely to be relatively subjective, although it may be possible to set out specific metrics, or details that bidders are expected to provide. There is a balance to be struck between being very specific in the scoring metrics (e.g. award bidders for identifying this, stating a value above x) and being very subjective (5 = excellent response, 1= poor response). Both have advantages and disadvantages, and the preferred approach will depend on the overall objectives and the time and resources available to develop the metrics or conduct the evaluations.

Specific scoring metrics
Advantages: More objective and consistent evaluation. The evaluation allows the assessments to be carried out by less experienced evaluators.
Disadvantages: Requires additional time up front to develop robust metrics. Introduces the risk of 'hidden criteria' that bidders are not aware of, which may leave the process open to challenge. A focus on discrete elements may overlook the overall quality and coherence of a submission.

Subjective scoring metrics
Advantages: Easier and quicker to develop scoring metrics. Criteria can be more transparently shared with bidders, potentially reducing the risk of challenge. Enables assessment of the overall quality and strength of the application, rather than a purely checklist-based review.
Disadvantages: Requires more experienced evaluators and evaluation is likely to be more time-consuming.

Evaluation methods

Conducting the evaluation of bid submissions is a key part of the process, if the evaluation process is not robust and transparent and evaluations are not correctly conducted in line with the published process then the Call for Bids could be open to legal challenge resulting in delays and potentially failure of the process.

The best evaluation method will depend on the design of the Call for Bids, the approach to the scoring metrics, the objectives of the process and the time and resources available. Some elements to consider that have led to successful outcomes in Arup's experience include:

- Completing a double-blind evaluation, where two people evaluate a bid submission and score independently before moderating their score in a moderation meeting to arrive at an agreed score for that bid submission.
- Assigning evaluators based on their area of expertise, meaning that evaluators are able to review multiple applications focusing on a particular question or element of submission e.g. environmental professionals reviewing the environmental elements of the submission. This increases consistency of evaluations across multiple bid submissions.
- Assigning evaluators to bid submissions in a logical way based on geographical area, type of bidder etc., or randomly depending on the desired outcomes and overall objectives.

3. Coexistence

Coexistence of the emerging offshore wind sector and existing and future ocean users in the Canada-Nova Scotia offshore is a priority and should be considered throughout the land tenure process as well as the project lifecycle of any future offshore wind projects.

The CNSOER welcomes your suggestions and feedback on coexistence.

Strategic Marine Planning

Strategic marine planning enables a system wide view of the ocean assets and considers how coexistence can be managed at a strategic level. Coexistence should be embedded as a core principle across all stages or offshore wind development, from spatial planning and area designation, through to leasing, construction, operations and decommissioning. Strategic planning should proactively designate suitable areas for the development of different assets while also protecting environmentally sensitive areas, considering that the marine environment functions as an interconnected system where activities in one area can affect others.

Clear expectations should be set within the call for bids process for proponents to demonstrate how coexistence will be achieved, including but not limited to:

- Meaningful consultation and collaboration
- Assessment and mitigation of interactions from spatial, temporal and operational (considering how the offshore landscape will change and evolve as more areas are developed).
- Mechanisms for monitoring and continuous improvement,

Key to successful marine planning is engaging stakeholders with a view to them helping to shape the strategic plan. Although there are established strategic planning process in other countries (for example Scotland) there are still issues with coexistence as the marine planning process exists in an environment with competing objectives, changing political and public opinion and uncertain project financing.

The process can be difficult and time consuming, however having a high-level planning framework is critical to provide a view of the future to stakeholders, particularly investors who need to have certainty on the long term viability of investments and future pipeline of projects. The process is also beneficial to support coexistence with existing ocean users, communities and biodiversity interests, demonstrating long term protections for specific users and / or interests and giving them a view on the expected level of development, as well as demonstrating that projects will be selected and designed in a way that minimizes conflicts, supports sustainable shared use of marine space, and builds long-term social acceptance for offshore wind development.

1. *The CNSOER welcomes your suggestions and feedback on the government identified Wind Energy Areas (Sydney Bight, Middle Bank, and French Bank) and the factors the CNSOER will use to design parcels within those Wind Energy Areas.*

Site Density

At this early stage of development, we would recommend a site density in the region of 4 MW / km^2.

There are several factors that could impact this assumed site density in the future, such as potential increases in wind turbine rotor / generator sizes and the erosion / expansion of assumed usable array areas based on geophysical / geotechnical studies etc. However, at this stage, we believe that a site density in the region of 4 MW / km^2 is reasonable based on the likely useable array area, the state of current bankable wind turbine technology, appropriate spacing between wind turbines, accommodation for offshore substations and the expected wind conditions in the site array area.

The proposed site array area is also expected to observe a high frequency of stable atmospheric conditions, which can amplify wind turbine interaction / wake effects, which is the single biggest energy yield loss that an offshore wind farm is likely to incur. In stable atmospheric conditions, the wakes (or turbulence) generated by upwind wind turbines propagate much further than in unstable or neutral conditions as there is less vertical air movement / mixing to enable the turbulent wind flow / wakes to return to laminar. This has a detrimental effect on the energy yield generated by downwind turbines in the array which are subject to these ever-increasing turbulent conditions (as the wind moves from the front of the array to the back).

Moreover, the site array areas are also expected to experience high wind resource i.e. a high frequency of time will be spent at or above rated power. Having high wind resource at a given site can serve to dilute the negative impacts of atmospheric stability described above, but only when coupled with appropriate turbine spacing and turbine technology selection. A site density range of 4 MW / km^2 aims to solve for Nova Scotia's strong atmospheric stability and is an appropriate range to support the recovery of wind speeds between turbines.

Our recommended density range is also appropriate for the current technologies that would be considered suitable for the project from an extreme loading perspective, i.e. 15 MW turbines currently available in market. Although Nova Scotia does not regular experience hurricane landfall, hurricanes originating from the Caribbean regularly pass within / nearby

Middle Bank (and Sable Bank), necessitating the use of hurricane-certified turbines. Moreover, Middle Bank (and Sable Bank) is far enough from shore that regular operations & maintenance will be relatively expensive, and this density range supports the long-term operational health of turbines, minimizing requirements to replace equipment and thereby reducing operational downtime.

Site Size

We would encourage an increase in site sizes in Middle Bank from 1,000 MW to 1,500 MW. 1,000 MW is an average site today but will be small by the time the first projects in Middle Bank come online (mid-2030s at the earliest; Middle Bank projects rely on progress of Wind West). Moreover, internal analysis suggests that an increase of projects size from 1,000 MW to 1,500 MW in Middle Bank reduces LCOE by 12%, as fixed costs (ie. offshore substations; export cables; onshore substation) are reduced by larger capacity.

Set Aside Areas

We would encourage the CNSOER to consider the possibility of developing the Middle Bank sites to allow shared infrastructure for combined offshore substations. At present, the CNSOER has indicated a willingness to award submerged land licenses ("**SLL**") for up to 2,000 MW in Middle Bank (ie., two 1,000 MW projects), but the size and scale of offshore wind situated in Middle Bank is many times that. If Nova Scotia is successful with its ambition, there might be several GW of offshore wind located in Middle Bank. Given the distance to shore, there could be synergies in creating a shared offshore substation HVDC platform that all Middle Bank projects connect to, with a shared HVDC cable coming to shore. This is increasingly common in other jurisdictions in which offshore wind is far from shore (ie., Germany) in order to reduce offshore substation costs and reduce electrical losses on long-distance transmission. CNSOER may want to carve out space to allow for a similar concept.

Finally, it might be wise at this early juncture to set aside an export cable corridor *within* Middle Bank for possible connection to Sable Bank, so that export cables from Sable Bank could pass through Middle Bank to align with an expected export cable corridor from Middle Bank to the Nova Scotia coastline.

2. *The CNSOER welcomes your suggestions and feedback on bid submission criteria to be used as part of the Call for Bids process, including specific criteria, criteria weighting, scoring metrics, and evaluation methods.*

We recommend that CNSOER include below criteria, listed in priority of importance:

i. Experience in constructing offshore wind farm;
ii. Experience in developing (ie., engineering / procurement / financing / permitting) offshore wind farm;
iii. Experience in operating offshore wind farm;
iv. Access to liquidity (ie., balance sheet and / or credit rating and / or experience with project finance);

Renewable energy projects have a long history of small, early-stage developers de-risking projects through acquisition of permits and site control and then selling to larger companies to lead financing / construction / operations. However, offshore wind of this scale (ie., 500 MW and up) is categorially different than onshore wind and solar because the early-stage Development Expenditures ("**DevEx**") and later-stage Capital Expenditures ("**CapEx**") are materially higher.

A standard 1,000 MW wind farm now costs close to CAD$200 million to bring to construction, with much of those costs derived from early-stage geophysical and geotechnical surveys (often CAD$30 – 50 million, depending on site conditions) and deposits on securing manufacturing slots (often 10% of total cost; for turbines (25 - 30% of total CapEx) and foundations (20 – 25% of total CapEx) this can amount to many tens of millions of dollars).

On that basis, priority should be given to developers with a demonstrated track record of *actually building projects* and *bringing them to operation*.

Some auctions request development plans (ie., engineering / procurement / financing commitment; etc …) as part of an auction submission. Please note that absent a path to offtake, most developers will not spend the funds required to prepare a comprehensive development plan. Moreover, with most projects (ie., Middle Bank) unlikely to come online until mid-2030s, early-stage project plans will not be helpful at this juncture.

3. *The CNSOER welcomes your suggestions and feedback on coexistence.*

No suggestions or feedback on coexistence.

4. *The CNSOER welcomes your suggestions and feedback on behalf of governments on considerations for fisheries' compensation.*

Nova Scotia has a rich maritime tradition, and coordination with fisheries will be a critical element to the success of Nova Scotia offshore wind. Offshore wind proponents around the world recognize the importance of balancing traditional fisheries activities with developing offshore wind, and input from fishers is crucial component to ensuring an offshore wind industry that is long-term, sustainable, and supportive of maintaining a vibrant Atlantic Canada ocean-economy.

Impacts from offshore wind on fisheries activities can be real, with the potential risk of collisions, noise from construction, changes to marine habitats, alterations to food chains, pollution from vessel traffic and the dispersion of seabed sediments posing legitimate concerns for fisheries. Much of this impact occurs during the construction period, during which noise from vessels, seabed clearing and foundation piling can disrupt ocean ecologies.

An important consideration for wind farm construction is the foundation type. Fixed foundation construction includes significant piling into the seabed, and this piling is different based on the two standard foundation types: (i) jacket foundations; and (ii) monopile foundations. Jacket foundations involve driving multiple pin piles into the seabed (3 – 4 per foundation) and lowering a jacket foundation on top of these pin piles; each pin pile is light and requires minimal (ie., quieter) piling. By contrast, monopiles involves less equipment to pile – only one per site, compared to 3 – 4 pin piles for a jacket foundation - but the large diameter and length of a monopile require more force (and noise) to install. Floating offshore wind involves limited offshore construction, as individual turbines are constructed in port and towed to site, removing most in-sea construction.

Ocean ecologies differ dramatically based on water depths, distance from shore, water composition, soil sediment, water temperatures, seasonality and water currents (among other considerations), making it difficult to make broad statements on the impacts of an offshore wind farm on fishing activities. In order to mitigate against adverse effects from offshore wind on fisheries, it is important to investigate a number of site-specific factors, including: (i) is a proposed project located site in or adjacent to an active fishing area; (ii) what species are located in this area; (iii) is the identified species commonly harvested by fishers; (iv) are the identified species migratory; (v) are the identified species in the food chain for other harvestable species; (vi) are the identified species noise sensitive; and (vii) are potential impacts short-term or long-term, among other considerations.

Above notwithstanding, recent investigations have demonstrated a growing range of benefits from offshore wind farms on ocean economies. Fixed wind turbine foundations can act as artificial reefs, providing a surface to which diverse ocean flora and fauna attach and grow. The emergence of a new flora and fauna in turn supports the growth of other animals that feed on them, including fish and marine mammals. In particular, shellfish are often attracted to offshore wind foundations. Offshore wind farms can act as a protected marine reserve for species, as the exclusion of boats within a wind farm reduce disturbance from fishing and shipping; this allows marine species to flourish and grow. Finally, there are recent examples of offshore wind project partnering with aquaculture companies to harvest the shellfish and seaweed that accumulate within a wind farm for production, for additional advantage to ocean economies.

Given above, a blanket fisheries compensation mechanism may not be appropriate at an early stage. Compensation should be based on actual impacts rather than potential impacts, and absent a review of site locations, impacted species, construction schedules, foundation types and other unknown considerations, it is too early to determine how offshore wind development will impact Nova Scotia's fisheries. Engagement with fisheries associations should remain respectful, coordinated and consistent, but the CNSOER may wish to avoid an early commitment to a fisheries compensation mechanism.

5. *The CNSOER welcomes your suggestions and feedback on the fees for bid submissions and successful bidders.*

We have two (2) comments with respect to the fee structure:

i. **Nonrefundable deposit** – the fee of $250,000 as a non-refundable deposit is high relative to other renewable energy auctions. The concept of a non-refundable deposit seems to be a legacy mechanism from oil & gas procurements; it is not the standard process for renewable energy procurements. Among renewable energy procurements, it is common to put up a bid security that is held in the event of a successful award; it is rare for that amount not to be returned should a proponent not succeed.

   This fee should either be refundable and / or lower to reflect global market norms for renewable energy procurement processes.

ii. **Milestone Payments** - The current proposed fee structure – ie., $250,000 to bid plus $750,000 to secure plus an annual seabed lease royalty until operation - is high given the uncertainty of offtake. The offtake issue is existential and will prevent serious development expenditures until it is resolved. Given that, most fees and royalty

payments should be delayed until at least after a power purchase agreement ("**PPA**") is executed. At PPA execution, revenue risk will be resolved and a proponent can feel comfortable proceeding with development expenditures; until then, the development risk is too high to justify the proposed fees and the royalty costs, particularly given the precarious state of the global offshore wind industry.

Put simply, the upfront fees ($1 million in total) plus the annual fee of $1,500 per km^2 do not reflect the significant offtake and timeline risk at this early stage. While these fees may appear reasonable compared to other jurisdictions, no other offshore wind market faces the same level of uncertainty around offtake and immaturity of supply chain as Nova Scotia.

With that in mind, we propose a milestone payment regime that splits costs and pushes them to de-risked development stages, including:

i. Submerged Land License award – negligible fee;
ii. PPA Execution;
iii. Project Final Investment Decision;
iv. Start of Construction;
v. Start of Commercial Operations.

6. *The CNSOER welcomes your suggestions and feedback on considerations and adherence to the principles listed in the Accord Acts.*

No suggestions or feedback on the principles listed in the Accord Acts.

7. *The CNSOER welcomes your suggestions and feedback on possible considerations for community benefits programs related to offshore wind development.*

We believe that the SLL auction is not the appropriate timing for consideration of a community benefits program.

Community benefits programs can be an important part of developing social license for large-scale infrastructure projects and to mitigate environmental, social and commercial impacts on a community.

However, at this early stage of program development, we think it is premature to engage with community benefits programs, largely because – aside from fisheries - it is not clear which communities will be affected by construction and development activities.

In offshore wind, it is common to provide community benefits support for (i) areas impacted by offshore cable landing areas; (ii) areas impacted by new / upgraded onshore substations; (iii) areas impacted by new / upgraded transmission lines; and (iv) areas impacted by increased vessel activity (ie., ports; harbours); among others. However, for the purposes of the SLL auction, none of these areas / communities have been identified.

Additionally, by the time of the SLL auction, projects will not have identified offtake / PPA / revenue streams, making it difficult to make financial commitments to communities. Successful applicants will be able to make more robust commitments once business plans are firmly in place; until then, there is a risk of commitments not proceeding.

We believe it is more appropriate to consider community benefits programs only *after* it is clear which communities will be impacted by offshore wind farm construction, and once revenue has been secured. Otherwise, CNSOER risks raising expectations among communities for benefits promised by developers that ultimately do not emerge.

8. *The CNSOER welcomes your suggestions and feedback on possible terms and conditions for the draft Submerged Land Licence.*

i. **Site Assessment Period** – there is a strong possibility that six (6) years is not long enough for the Site Assessment Period.

   At page 12 of the Strategic Direction issued on September 18, 2025 by Natural Resources Canada ("**NRC**") and the Nova Scotia Department of Energy ("**NS DOE**"), the letter reads that "Governments anticipate that work on offtake will be initiated within 12 – 18 months of the issuance of the first submerged land license(s)".

   Since this is the period in which work will be *initiated* but not *completed*, plus offtake outside of Nova Scotia will rely on successful planning / procurement / financing / construction of the Wind West transmission line, there is a high probability that offtake will take much longer than 18 months to be fully resolved. Developers are unlikely to undertake material development expenditures until *after* an offtake agreement is signed.

Given above, the Site Assessment Period should either be extended to ten (10) years, or successful applicants should be offered the option of two (2) separate two-year extensions (ie., 4 years total), available at the discretion of a successful applicant.

ii. **Assignability of submerged land license** – we would expect a right to assign a SLL to a potential Assignee, subject to consent by the CNSOER, such consent not to be unreasonably withheld. We would expect that an Assignee does not need to be a pre-qualified under CNSOER Offshore Wind Prequalification NS25-1R - Form; however, we would accept as reasonable that an Assignee is required to meet the same financial thresholds as outlined in Section II: Financial of CNSOER Offshore Wind Prequalification NS25-1R – Form.

That is, a successful applicant should have a right to assign a submerged land license, so long as the proposed Assignee meets the financial criteria outlined in Section II: Financial of CNSOER Offshore Wind Prequalification NS25-1R – Form.

iii. **End of Term Repowering Options** – in the mid-2020s, the world's first offshore wind farms started to arrive at the end of their initial PPA terms (ie., 20 years from start of operations), and many of them are receiving extensions and / or options to repower. While it is difficult to anticipate the state of industry and / or state of a wind farm in fifty years, we would encourage CNSOER to include an extension and / or Repowering option for the submerged land lease, by mutual agreement between a successful applicant and CNSOER.

iv. **Termination** – In the "Termination" section of the "Summary of Potential Terms and Conditions for Inclusion in the Submerged Land License", below is proposed as an event of termination:

- The Regulator cancels the SLL because the Interest Owner has failed to comply with any of the following:
    - [removed]
    - An authorization issued by the Regulator
    - Any plan approved by the Regulator
    - [removed]

In brief, the above two provisions give the Regulator a unilateral right to cancel the SLL at any time at the full discretion of the Regulator. This is an unacceptable risk to a successful applicant and would make the SLL unbankable to potential lenders.

We strongly discourage the CNSOER from adding language that provides for unilateral rights to terminate the SLL, without cause or appeal by a successful applicant.

v. **Limited Decommissioning Obligations** – projects that start operating in mid-2030s and operate for 40 years will reach the end of their submerged land license in the mid-2070s. It is outside the scope and abilities of policymakers and / or industry to understand what technological advances will exist to allow for decommissioning in that period. Given this, we strongly encourages the CNSOER not to be prescriptive with decommissioning obligations at this early stage.

Similarly, the proposed two (2) years for the Decommissioning and Abandonment Period should have an extension provision. Per item (iii) above, the first generation of offshore wind projects arriving at end of life are now getting extension and / or repowering.

Finally, in other markets that include a decommissioning requirement, payment into a decommissioning fund is often paid on a *pro rata* basis over the course of a lease term (ie., 3.3% / year for 30 years). It is unreasonable to ask a successful applicant to pay / assure the full value of decommissioning cost 40 years before it is used, for an amount that is likely not relevant at the time of use and based on a contemporary technical / technological assessment that will undoubtedly be obsolete at the time of decommissioning.

vi. **Required Plans –** CNSOER is proposing the following plans for inclusion in the SLL auction:

i. Coexistence Plan;
ii. Full and Fair Opportunity Plan;
iii. Fisheries Plan;
iv. Community Benefits Plan;
v. Biodiversity Plan

At present, public messaging suggests that applicants may have 60 - 90 days to prepare a call for bids.

60 - 90 days is not enough time to prepare the above-mentioned plans; moreover, all applicants will require Nova Scotia based consulting firms to prepare above-mentioned plans, and there are a limited number of companies with the capabilities to prepare this. While this will lead to a bonanza for the small number of consulting firms that are able to

demonstrate expertise on the requested topics, it will inevitably lead to a misallocation of DevEx funds as plans are produced for unsuccessful companies. Plans of this nature also require a more thoughtful approach than the expected timelines will provide. Finally, given the rushed timelines and comprehensive nature of these plans, applicants can expect to pay hundreds of thousands of dollar *per plan,* which adds additional disincentive to participate in the Submerged Land License auction.

Instead, these plans are more appropriately required for successful applicants only.

9. *The CNSOER welcomes your suggestions and feedback on considerations for a Participant Funding Program*.

No suggestions or feedback on the Participant Funding Program.

10. *The CNSOER welcomes any additional feedback and comments*.

We have worked across several renewable energy and offshore wind projects globally. It is important to differentiate between the success of an auction and the success of a project. From 2020 until mid- 2024, policymakers were successful in attracting bidders to auctions, but as interest rates rose and supply chain challenges emerged, multiple projects failed; that is, many successful auctions did not lead to successful projects.

More recently, this dynamic has accelerated: from late 2024 onwards, multiple global auctions have failed, with Denmark (Dec 2024), Germany (Aug 2025), France (Sep 2025) and Lithuania (Oct 2025) saw zero-bid auctions. Others - Netherlands (May 2025), Taiwan (Jul 2025), Australia (Sep 2025) and Japan (Oct 2025) - delayed auctions to recalibrate amid low developer interest. A misaligned auction can stall industry progress for years, while a well-designed, well-timed auction sends a strong signal of regulatory responsiveness to market realities. An auction is only as successful as its ability to lead to successful projects.

With that in mind, it is important for the CNSOER to balance competing priorities when developing the offshore wind auction, and to both enumerate them and prioritize these objectives clearly.

There are typically multiple competing priorities when preparing an auction, including (i) low electricity prices; (ii) speed of construction; (iii) local supply chain commitments; (iv) local O&M commitments; (v) community benefits agreements (including First Nations agreements); (vi) fishers compensation agreements; (vii) royalty / tax regimes; (viii)

decommissioning costs; (ix) marine co-existence; and (x) local environmental concerns (ie., birds / fish / marine mammals, etc …), among others.

For industry, the overriding priorities are price, speed and certainty. Offshore wind projects are hugely expensive – the Wind West document issued by NS DOE document puts CapEx at CAD $8 million / MW; this puts a 1,000 MW project at CAD$8 billion – such that delays to a project schedule and small percentage overruns can have impacts in the hundreds of millions of dollars (ie., a 5% overrun on a CAD $8 billion project can add an additional CAD$400 million in costs). Given this, adding too many additional obligations to a project adds risk that is often not commensurate with the potential benefits.

A successful offshore wind project organically creates benefits for local industry and communities through job creation (local services; O&M jobs; temporary construction jobs; etc …), spending in communities (services; hotels; food; tourism; etc …), and tax payments; by contrast, an overly onerous regime can slow projects down and push up energy costs, hurting ratepayers and deterring future project development. Globally, multiple offshore wind projects have failed because policy conditions set by policymakers proved too high to achieve. The CNSOER has an opportunity to learn from these auctions and develop a regime that prioritises project success as a first principal.

In sum, the CNSOER would do well to focus on project *deliverability* as a first priority. In support of this, the CNSOER should keep obligations low and prioritize the award of licenses to applicants with a balance sheet and history of delivering offshore wind projects. Successful projects naturally bring ancillary impacts - ie., jobs; experience; new businesses; future projects; tax revenue; etc … - that naturally permeate through local and regional economies. If the CNSOER is successful in attracting experienced proponents to develop deliverable projects, broader economic benefits will come.

Offshore Wind Call for Information NS25-1R

Written Feedback

1. **The CNSOER welcomes your suggestions and feedback on the government identified Wind Energy Areas (Sydney Bight, Middle Bank, and French Bank) and the factors the CNSOER will use to design parcels within those Wind Energy Areas.**

   We applaud Nova Scotia, the Regional Assessment Committee, and the Canada–Nova Scotia Offshore Energy Regulator (CNSOER) for their efforts and progress to date in identifying suitable and responsibly sited Wind Energy Areas (WEAs) for offshore wind development. The iterative nature of this process and the proactive engagement with rightsholders, stakeholders, and ocean users represent best practice in securing social licence for the development of natural resources such as Nova Scotia's world-class wind resources and shallow offshore seabed.

   Of the three WEAs identified, we strongly recommend excluding French Bank from the 2026 Call for Bids, given the immaturity and higher cost of floating offshore wind technology relative to fixed-bottom solutions. Although floating offshore wind will ultimately be competitive in global markets that lack shallow-water alternatives, Nova Scotia has significant fixed-bottom potential. Advancing floating seabed licences at this stage would unnecessarily divert focus and resources from the many challenges that must be addressed to deliver the more technically mature and commercially competitive fixed-bottom offshore wind in Nova Scotia. Floating offshore wind remains approximately two to three times more expensive per megawatt than fixed-bottom offshore wind, and there are no 500-megawatt-scale floating projects in operation or under construction globally today. Nova Scotia should concentrate efforts on enabling transmission and offtake routes to market, which are critical to all future offshore wind development in the province.

   Both the Middle Bank and Sydney Bight WEAs exhibit strong potential for fixed-bottom offshore wind development. Parcels within these WEAs should be sized to support Nova Scotia's first utility-scale offshore wind projects, while preserving flexibility for future auction rounds and minimizing the risk of external wake interactions between projects. Several key considerations should inform appropriate parcel sizing:

   - **Water depth and seabed suitability:** Fixed-bottom technology is most economically deployed in water depths of 60 metres or less; therefore, all tendered parcels should be fully contained within this depth limit. The wind resource within each WEA is uniformly strong and does not serve as a differentiating factor to incentivize the use of parcels with water depths greater than 60 metres.
   - **Wind turbine generator (WTG) spacing and wake losses:** WTG layouts are designed to minimize internal wake losses, which reduce energy production and increase turbulence-induced structural fatigue. If WTGs are placed too close together, wake losses can erode project output. If they are spaced too widely, valuable seabed is consumed without providing meaningful performance or benefits to ocean users. (Note: Wake loss is a term that describes the lost energy production caused by the slowdown of wind in the immediate downwind direction of a WTG, which gradually dissipates with distance as atmospheric turbulence restores the flow.)
   - **Attrition allowance:** Based on industry experience, we recommend applying a 10% attrition factor to account for portions of the seabed that may later be excluded due to geotechnical factors. Oversizing parcels ensures that even after attrition, projects can maintain efficient layouts and economic project capacities.
   - **Transmission technology and economies of scale:** Economies of scale are typically achieved at capacities of approximately 800 megawatts (MW) for high voltage alternating current (HVAC) projects (as applicable to Sydney Bight) and 1,200—1,400 MW for high voltage direct current (HVDC) projects (as applicable to Middle Bank). These project sizes account for HVAC and HVDC offshore substation technical capacity limits. In either case, smaller projects would result in

higher costs per megawatt because fixed capital expenditures would be allocated over fewer megawatts.

Applying these considerations, we have identified approximately 187 square kilometres (km^2) of suitable seabed in water depths under 60 metres within the Sydney Bight WEA. Accounting for a 10% attrition buffer, an energy density of approximately 4.8 MW per km^2 would be required for an 800 MW project. A preliminary layout analysis shows that 15 MW WTGs with 1.85 x 1.85 kilometre (1 x 1 nautical mile [NM]) spacing (similar to many offshore wind projects under development in the United States) would achieve roughly the same nameplate capacity and energy density. This proposed energy density aligns with projects currently operating or under construction in the United States (US), as shown in the table below.

Project	Area	Capacity	WTG Model	Grid Spacing	Energy Density
South Fork Wind (NY)	55 km^2	132 MW	SGRE 11 MW	1x1 NM	2.4 MW/km^2
Vineyard Wind 1 (MA)	264 km^2	806 MW	GE 13 MW	1x1 NM	3.1 MW/km^2
Empire Wind 1(NY)	160 km^2	810 MW	Vestas 15 MW	0.65x0.65 NM	5.1 MW/km^2

Within the Middle Bank WEA, we have prepared two nomination approaches to support the CNSOER's consideration of both near-term deliverability and long-term development sequencing:

- **Approach 1** proposes two parcels positioned in the shallowest areas of Middle Bank. This minimizes foundation costs and aligns the internal boundary between parcels with the prevailing wind-rose direction, ensuring neither parcel experiences disproportionate external wake shading from the other.
- **Approach 2** proposes three parcels, each with roughly the same seabed area as those proposed under Approach 1. The three parcels are positioned to minimize external wake effects and have similar water-depth profiles across sites. This approach results in deeper average water depths but substantially reduces the risk that any future upwind parcels could impose external wake losses on these first projects. Similar issues have already led to legal disputes in the North Sea, where earlier leaseholders have claimed material reductions in energy production due to later upwind developments. For this reason, Nova Scotia needs to consider long-term build-out when establishing parcel boundaries.

Assuming an energy density of approximately 4.2 to 4.4 MW/km^2 and a 10% attrition buffer, each Middle Bank parcel would require approximately 350 to 370 km^2 of seabed to accommodate a 1,400 MW project. Since the Middle Bank sites are farther from shore and have fewer seabed constraints, we have assumed a slightly lower energy density compared to the Sydney Bight parcel. A preliminary layout analysis indicates that 15 MW WTGs with 1.85 x 1.85 km spacing (consistent with the assumptions for Sydney Bight) achieve the target nameplate capacity of 1,400 MW. The parcels outlined in both Approach 1 and Approach 2 remain within the 60-metre depth limit, avoiding the need for floating technologies. Under Approach 1, both Middle Bank parcels fall within a 55-metre depth limit to further optimize foundation supply cost. The seabed area nominated for each parcel is listed below:

- **Sydney Bight:** 187 km^2
- **Middle Bank (Approach 1)**
    - **Middle Bank North:** 349 km^2
    - **Middle Bank South:** 354 km^2
- **Middle Bank (Approach 2)**
    - **Middle Bank North:** 367 km^2
    - **Middle Bank Central:** 372 km^2
    - **Middle Bank South:** 367 km^2

We strongly recommend CNSOER offer 3 Middle Bank parcels as proposed in **Approach 2** to maximize efficient utilization of the WEA. This approach will allow Nova Scotia to realize up to a total of 5 GW of fixed-bottom offshore wind power while limiting development to nearer term, lower cost, and more technically proven technology. Pursuing Approach 2 does not necessitate offering all Middle Bank parcels in this Call for Bids but preserves future optionality.

For the avoidance of doubt, we are making the above assumptions to recommend parcel size only. We favor layout flexibility and recommend the CNSOER look to EU and UK guidance as best practice when considering minimum spacing. This allows developers to design layouts that are informed by completed seabed studies and wind resource assessments while maintaining adequate spacing for navigational safety within the lease area.

2. **The CNSOER welcomes your suggestions and feedback on bid submission criteria to be used as part of the Call for Bids process, including specific criteria, criteria weighting, scoring metrics, and evaluation methods.**

The proposed bid criteria are appropriate and sufficiently qualitative. These criteria will prioritize awarding seabed licences to experienced, well-financed investors who can be relied upon to deliver offshore wind for Nova Scotia. Detailed comments on the proposed criteria are provided below.

Technical Expertise and Project Delivery Capacity

Evaluating bidders' Technical Expertise and Project Delivery Capacity is critical, as offshore wind is a highly complex asset class that requires specialized development, construction, and operations expertise. Experience delivering large-scale offshore wind projects in other markets is the best indicator of a bidder's potential future success in Nova Scotia.

Furnishing an indicative Project Plan that contains appropriate caveats, assumptions, and anticipated development milestones and a Pre-Feasibility Study that outlines the critical port infrastructure, supply chain, survey, permitting, interconnection, and financing components needed for a project to reach financial close (FC), as well as a base case set of assumptions on how those will be secured, are both appropriate. However, the Project Experience component should be weighted most heavily as there is better information available about past project experience than there is certainty about the specifics of eventual project development in Nova Scotia. Project Plan and Pre-Feasibility Studies should be modest components of both the total Technical Expertise and Project Delivery Capacity component and the overall Call for Bids criteria.

Financial Strength and Project Delivery Readiness

Evaluating bidders' Financial Strength and Project Delivery Readiness is appropriate at the seabed leasing stage, given the capital-intensive nature of offshore wind and the significant investment required in the years leading up to final permitting approvals and FC.

The Net Assets and Equity Ratio or Funds Under Management evaluation criterion appears redundant given the information submitted as part of the prequalification process. It should be clarified whether the evaluation will be scaled, with preference given to bidders with higher funds, or whether it will once again be treated as a threshold requirement.

The Project Financing Plan should summarize how bidders financed offshore wind projects in other jurisdictions and outline a financing approach for a project in Nova Scotia. The plan will be highly preliminary and subject to change given the potential for future partnerships, including First Nation equity participation. Therefore, similar to Technical Expertise and Project Delivery Capacity, greater weight should be placed on Financial Track Record, as that criterion is more likely to indicate future capability than highly indicative plans at the early stage of this market.

Engagement and Community Benefits

Engagement Plan

Effective engagement is critical to the successful development of offshore wind projects. Experience demonstrates that meaningful, inclusive engagement is not only good practice, but essential to ensuring that communities hosting and affected by offshore wind development benefit directly from its delivery.

At the seabed leasing stage, it is neither practical nor appropriate to require a fully developed, project-specific Engagement Plan. Any Engagement Plan prepared at this early stage can only represent a preliminary, point-in-time snapshot and cannot reasonably capture the full range of relationships, strategies, and resources required for effective engagement. Community engagement is inherently multi-faceted and dynamic, evolving in response to project design, stakeholder feedback, regulatory processes, and broader social and economic conditions.

To ensure the Engagement Plan appropriately aligns with the seabed leasing stage, the Call for Bids should require a high-level Engagement Plan that outlines engagement objectives, identifies potentially affected communities and stakeholder groups, and describes proposed engagement methods and processes. After seabed leases are awarded, the Engagement Plan could be treated as a living document, to be updated over time and informed by ongoing dialogue with communities, including Indigenous governments and organizations, African Nova Scotian and African Descent communities, and other stakeholders.

The Call for Bids should also require bidders to describe their overall approach to community engagement, including guiding principles and examples of inclusive engagement undertaken on prior projects. This information would allow the CNSOER to evaluate bidders' experience, capacity, and commitment to meaningful engagement without requiring project-specific details that cannot yet be fully determined.

Local Community Benefits Plan

Community benefits are an important component of responsible offshore wind development. Experience demonstrates that community benefits are most effective when they are identified, shaped, and delivered through consultation and partnership with communities themselves. This is particularly important for ensuring that benefits are inclusive of the Mi'kmaq of Nova Scotia, African Nova Scotian and African Descent communities, and other underrepresented or underserved groups. Developers cannot, and should not, define community priorities or benefits on behalf of communities without their direct input.

Defining community priorities and benefits can take years and often occurs only after relationships built on trust have been established and significant open dialogue has taken place. The Call for Bids should not seek to pre-empt this process by requiring bidders to submit a Local Community Benefits Plan that includes specific commitments to any community or stakeholder group. Instead, to ensure that the Local Community Benefits Plan appropriately aligns with the seabed leasing stage, the Call for Bids should require bidders to:

- Describe their principles and commitments for inclusive, community-led benefits development, including respect for Mi'kmaq of Nova Scotia, African Nova Scotian and African Descent communities, and other underrepresented or underserved groups;
- Provide examples from prior projects demonstrating their ability to develop community benefits in consultation or partnership with communities; and
- Commit to developing a project-specific Local Community Benefits Plan in collaboration with communities in subsequent project phases.

Under this approach, the Local Community Benefits Plan would serve primarily as a statement of intent and capability, rather than a detailed program or series of commitments. Community-specific commitments would be developed only after seabed lease award, once relationships are established, project parameters are better defined, and communities have had the opportunity to meaningfully shape both the process and the outcomes. A key advantage of this approach is that it would support clear expectation-setting with communities about what can reasonably be delivered, when, and under what circumstances.

Local Content

Local Supply Chain Development Plan

At the seabed leasing stage, it would be premature to require a detailed, project-specific Local Supply Chain Development Plan. Detailed supply chain commitments are more appropriately developed in subsequent project phases, informed by ongoing engagement with governments, Indigenous communities, local businesses, and other stakeholders. Moreover, given the very early stage of offshore wind development in Canada, it is not yet realistic for developers to have a comprehensive view of supply chain requirements or localization opportunities. These will become clearer as the market advances and projects progress through development.

The Call for Bids should therefore require bidders to describe their overall approach to local supply chain development, including how they intend to support an inclusive, diverse, and equitable offshore wind supply chain. Bidders should also be asked to provide examples of how similar objectives have been advanced in prior projects, including their experience creating opportunities for Indigenous communities, African Nova Scotian and African Descent communities, and other underrepresented or underserved groups.

Any plan submitted at this stage should reasonably be limited to a high-level description of anticipated supply chain categories, preliminary engagement strategies, and proposed principles for inclusive participation. As such, the Call for Bids should focus on evaluating bidders' experience, intent, and demonstrated capabilities in developing local, diverse, and inclusive offshore wind supply chains, rather than requiring detailed or binding commitments.

Workforce and Training Plan

Similar to the Local Supply Chain Development Plan, it would be premature to require a detailed, project-specific Workforce and Training Plan. An offshore wind project's workforce needs will be better defined once there is clarity on project design, technology selection, and port use. Moreover, given the very early stage of offshore wind development in Canada, workforce capability assessments and significant engagement with local labour, as well as with workforce, education, and training institutions, are necessary to inform plan development.

The Call for Bids should therefore require bidders to describe their overall approach to workforce development and training for offshore wind projects, including how they intend to support an inclusive, diverse, and equitable workforce. This should include examples of how bidders have supported workforce development, training, and skills transfer on prior projects, particularly initiatives that created opportunities for Mi'kmaq of Nova Scotia, African Nova Scotian and African Descent communities, and other underrepresented or underserved groups.

Any plan submitted at this stage should reasonably be limited to a high-level description of anticipated workforce needs, preliminary engagement strategies, and proposed principles for inclusive participation. As such, the Call for Bids should focus on evaluating bidders' experience, intent, and demonstrated capabilities to train and employ a local, diverse, and inclusive offshore wind workforce.

Environmental Sustainability and Coexistence

Coexistence Plan

At the seabed leasing stage, it would be premature to require a fully developed Coexistence Plan, as bidders will not have sufficient site-specific information to meaningfully assess the potential for interactions with other ocean users, nor will they be able to define detailed avoidance, minimization, or mitigation measures. Instead, the Call for Bids should require bidders to describe their overall approach to coexistence, provide examples of how coexistence issues were identified and managed on prior projects, and submit a high-level, preliminary Coexistence Plan.

Any Coexistence Plan submitted at the seabed leasing stage should be limited to initial information on existing ocean users and uses within a parcel and should describe potential processes for engagement. The Plan could function similarly to Fisheries Communication Plans for US offshore wind projects and serve as a living, publicly available document updated throughout a project's lifecycle, incorporating input from potentially impacted users. This approach appropriately recognizes the early stage of offshore wind project development in Nova Scotia and would provide bidders with the flexibility to refine and update their plans as projects advance, new information becomes available, and stakeholder input is received.

Biodiversity Plan

Similar to the Coexistence Plan, it would be premature to require a fully developed Biodiversity Plan. At this stage, bidders do not yet have access to the site-specific environmental data necessary to meaningfully assess impacts or to define detailed avoidance, minimization, mitigation, or enhancement measures.

Any Biodiversity Plan submitted as part of a bid could reasonably provide only a high-level description of the offshore environment, an outline of proposed environmental baseline surveys, and an initial description of potential measures to avoid, minimize, and mitigate impacts during site assessment activities.

To enable the CNSOER to assess bidders' environmental credentials at this early stage, the Call for Bids should also require bidders to describe their overall approach to environmentally responsible offshore wind development and provide examples of how biodiversity was protected, conserved, and/or enhanced on prior projects. This information would allow the CNSOER to assess bidders' experience, capabilities, and commitment to positive environmental outcomes without requiring project-specific commitments, which would be challenging to make this early in the project development process.

Measures to protect, conserve, and/or enhance biodiversity during the construction, operations, and decommissioning phases are most appropriately identified, evaluated, and refined during the environmental assessment and permitting processes that each offshore wind project would eventually undergo. Requiring a detailed Biodiversity Plan or commitments at the seabed leasing stage risks constraining future project design decisions prematurely or encouraging speculative commitments that cannot be reliably implemented or fail to yield the intended benefits.

As such, the CNSOER should adopt an approach whereby a high-level Biodiversity Plan is evaluated at the seabed leasing stage and allow further measures to be developed during the environmental assessment and permitting processes. This approach would best support positive biodiversity outcomes.

Criteria Weighting

The following percentage allocation across all evaluation criteria is recommended to appropriately gauge bidders' preparedness and potential to advance a seabed licence in Nova Scotia successfully:

- **Technical Expertise and Project Delivery Capacity: 35%**
    - Project Experience: 25%
    - Project Plan: 5%
    - Pre-feasibility Study: 5%
- **Financial Strength and Project Delivery Readiness: 35%**
    - Net Assets and Equity Ratio or Funds Under Management: 10%
    - Financial Track Record: 20%
    - Project Financing Plan: 5%
- **Engagement and Community Benefits: 10%**
    - Engagement Plan that is inclusive of the Mi'kmaq of Nova Scotia, African Nova Scotian and African Descent communities, and other underrepresented and underserved groups: 7.5%
    - Local Community Benefits Plan that is inclusive of the Mi'kmaq of Nova Scotia, African Nova Scotian and African Descent communities, and other underrepresented and underserved groups: 2.5%
- **Local Content: 10%**
    - Local Supply Chain Development Plan that supports establishing an offshore wind supply chain that is inclusive, diverse, and equitable, creating opportunities for Mi'kmaq of Nova Scotia, African Nova Scotian and African Descent communities, and other underrepresented and underserved groups: 5%
    - Workforce and Training Plan: 5%
- **Environmental Sustainability and Coexistence: 10%**
    - Coexistence Plan that includes references to existing ocean users and uses: 5%
    - Biodiversity Plan that includes references to proposed measures to protect, conserve, and/or enhance biodiversity: 5%

TOTAL: 100%

Licences per Bidder and Consortia Partnerships

We recommend that bidders only be eligible to receive a single seabed licence in the Call for Bids to promote diversification among awarded developers and to avoid the risk of "land banking," which could result from a single developer holding rights to half or more of the awarded parcel licences. Such a limitation should not preclude bidders from competing for, or being awarded, a second licence in a subsequent future Call for Bids.

The single-licence limitation should apply not only to individual bidders, but also to consortium members and financial partners. Specifically, participating entities—whether developers, equity partners, or financiers—should not be permitted to hold a direct or indirect interest in more than one parcel licence awarded through the 2026 Call for Bids. This limitation should apply indefinitely and on a partial-licence basis (e.g., a financier should not be permitted to invest in more than one of the licences or eventual projects located in parcels offered in the Call for Bids).

Furthermore, with respect to partnerships, while it is appropriate to require that each entity bidding, whether independently or as part of a consortium, be prequalified, flexibility should be maintained to allow additional entities to submit qualification materials after the Call for Bids to invest in, join, or form a new consortium arrangement. This will be critical to enabling First Nation equity participation and to allowing other sources of development capital to be invested in projects as they progress through development. Similarly, the transfer of ownership interests should be allowed, provided that appropriate qualification materials are submitted for regulatory approval.

Bid Mechanics

While we advocate that no bidder be awarded, or permitted to invest in, more than one seabed licence resulting from the 2026 Call for Bids, we strongly support allowing bidders to submit bids on multiple parcels and to indicate a ranked order of preference. This approach would provide the CNSOER and government with flexibility in allocating licences. For example, if more than one qualified bidder bids on a particular seabed parcel, the CNSOER and government could award the lower-scoring bidder an alternative site based on that bidder's preference order.

In addition, we strongly recommend seabed parcels are explicitly defined by the CNSOER prior to the 2026 Call for Bids to avoid overlapping lease nominations and bidder confusion.

3. **Coexistence of the emerging offshore wind sector and existing and future ocean users in the Canada-Nova Scotia offshore is a priority and should be considered throughout the land tenure process as well as the project lifecycle of any future offshore wind projects. The CNSOER welcomes your suggestions and feedback on coexistence.**

Coexistence is essential to the long-term sustainability of Nova Scotia's offshore wind industry, and it is both achievable and already being successfully demonstrated. Based on our experience in the United States and lessons learned from mature offshore wind markets in Europe, we know that offshore wind can coexist successfully with fisheries, marine transportation, scientific research, recreation, and other ocean uses when supported by proactive communication, clear protocols, and a shared commitment from all parties.

A number of best practices have been established to support coexistence between offshore wind and ocean users. Best practices to be undertaken by offshore wind developers include the following:

- **Early and ongoing stakeholder engagement and communication**
    - Identify potentially impacted ocean users through effective outreach strategies.
    - Develop publicly available communication plans with input from potentially impacted ocean users.
    - Use fisheries liaisons, fisheries representatives, marine user advisory groups, and similar approaches to maintain consistent, two-way communication.
    - Proactively communicate offshore activities in advance and while they are ongoing through multiple channels (e.g., Very High Frequency radio, email/text lists, Notices to Mariners, and dedicated liaison contacts).
- **Transparent spatial planning and ocean mapping**
    - Share project data publicly and support broader data-sharing efforts whenever practicable.
    - Use integrated ocean mapping tools to understand existing activities and minimize the risk of spatial conflicts.
    - Design project layouts to facilitate safe navigation, incorporating input from mariners and ocean users.
- **Deconfliction planning**
    - Identify potential spatial, operational, and seasonal conflicts before survey schedules or project layouts are finalized.
    - Use local knowledge, fisheries data, marine traffic information, and ecological datasets to map potential conflicts.
    - Develop deconfliction plans and measures collaboratively with ocean users.
    - Ensure deconfliction measures align with Canadian Coast Guard, Transport Canada, and international maritime safety standards.
    - Share deconfliction plans publicly, whenever practicable, and maintain accessible updates.

- **Fishing gear loss and damage protocols**
    - Establish simple, fair, and transparent protocols for reporting, investigating, and resolving fishing gear interaction or damage claims.
    - Provide timely compensation for valid claims.

While developers play a critical role, successful coexistence is a shared responsibility that requires coordinated effort across government, industry, and other ocean users. Towards that end, we encourage the CNSOER and governments to:

- **Support structured engagement frameworks** that bring regulators, ocean users, and developers together early in the planning process. Examples include the Fishing Liaison with Offshore Wind and Wet Renewables Group in the United Kingdom and the New York Fisheries Technical Working Group and Maritime Technical Working Group in the US.
- **Provide clear, consistent regulatory guidance** on coexistence expectations within the land tenure and permitting process, with well-defined roles and responsibilities for all parties.
- **Enable shared ocean data platforms** to improve transparency and reduce uncertainty for all users.

4. **The CNSOER is seeking feedback on behalf of governments on the considerations for fisheries' compensation. Governments are developing an approach to fisheries' compensation based on the feedback we receive. The CNSOER welcomes your suggestions and feedback on behalf of governments on considerations for fisheries' compensation.**

Fisheries compensation is intended to provide fair and reasonable financial compensation to fishing businesses for unavoidable economic impacts directly attributable to offshore wind projects. Consistent with the mitigation hierarchy, fisheries compensation should be considered only as a last resort, where impacts cannot be avoided, minimized, or otherwise mitigated. The scope of impacts considered in determining the need for, and the potential scale of, fisheries compensation is generally limited to reasonably foreseeable direct impacts identified through a project-level environmental assessment using the best available data and information.

Fisheries Compensation in the US

Experience from the US in assessing potential fisheries impacts, determining compensation amounts, and designing and implementing compensation programs is highly instructive as governments develop an approach to fisheries compensation. Importantly, the growing number of utility-scale projects in US waters is generating real-world evidence on the nature and extent of offshore wind impacts on fishing businesses—both positive and negative—including evidence on the safety and economic viability of fishing activities within offshore wind project areas. This evidence should be used to validate prior impact assessments and inform future ones.

Several offshore wind projects, including Empire Wind 1, Revolution Wind, South Fork Wind, and Vineyard Wind 1, have established project-specific fisheries compensation programs. While these programs differ in key respects, each is administered by an independent third party. As offshore wind continues to advance in the US, the prospect of multiple, distinct programs has raised concerns about confusion, reduced efficiency, and increased administrative burdens for fishing businesses, underscoring the value of a more coordinated, consistent approach to fisheries compensation. This view is broadly shared by offshore wind developers, regulators, and fishers.

In response, an effort is underway on the US East Coast to design a regional fisheries fund across 11 states from Maine to North Carolina. The fund is being developed by a regional fund administrator with input from developers, regulators, fishers, and seafood processors. Additional information is available at: https://www.rfainfo.com/.

On the West Coast, where offshore wind is at an earlier stage of deployment, California is concluding a two-year, legislatively mandated working group process to develop a statewide strategy to ensure that offshore wind energy projects avoid and minimize impacts to commercial and for-hire recreational fishing activities. The working group was comprised of state agencies, California Native American tribes with potentially affected tribal fisheries, offshore wind developers, and fishing industry representatives. Among other things, the statewide strategy provides guidance on implementing a consistent framework for fisheries compensation. The strategy is expected to be released in February 2026 and should serve as a useful reference document for governments.

Best practice

When it comes to fisheries compensation, best practices are reasonably well established in some areas, others are emerging, and some remain under development. Existing best practices include the following:

- **Early and sustained engagement:** Proactive, continuous engagement with potentially impacted fisheries is critical to identifying potential impacts, improving project design, and reducing the need for compensation.
- **Project-specific, evidence-based assessment:** Compensation determinations should be grounded in project-level environmental and socio-economic assessments using best available data, supplemented by targeted studies and fisheries stakeholder input.
- **Clear definition of compensable impacts:** Compensation frameworks should clearly define the types of impacts eligible for compensation—typically limited to demonstrable, project-attributable economic impacts—while excluding broader market, environmental, or management-related effects.
- **Separation of compensation mechanisms:** Compensation programs should be distinct from gear loss/damage claims processes, which provide financial compensation for gear loss or damage resulting from interactions with project vessels and infrastructure.
- **Fair and reasonable compensation:** Compensation programs should address actual, unrecovered economic losses while avoiding windfalls.
- **Support continued fishing activity:** Compensation programs should be designed with the expectation that fisheries will continue to operate. Programs should reinforce incentives to keep fishers fishing and avoid creating perverse incentives that could keep fishing vessels tied to the dock or reduce fishing effort.
- **Transparent governance and administration:** Compensation programs should be implemented through transparent processes by independent third-party administrators.
- **Clear dispute resolution mechanisms:** Compensation programs should include appeal processes to provide fishing businesses with confidence in the fairness and accountability of eligibility and compensation determinations.

Data

Robust fisheries data are essential to support accurate impact assessments, demonstrate fishing activity in or reliance on a specific area, and substantiate claims of economic harm. Data availability varies widely across fisheries, and even the best available data have inherent limitations. A key challenge is that most existing fisheries data and data-collection efforts are primarily designed to support fisheries management and enforcement, rather than impact attribution or fisheries compensation. While these limitations are not insurmountable, they require flexibility and innovative approaches to resolve. Data confidentiality rules and federal regulations on data sharing also pose persistent challenges.

From an impact assessment perspective, where sufficient data exist, limitations have been effectively managed by combining quantitative data (including federal and state datasets) with qualitative information and fisheries stakeholder input, while acknowledging uncertainty. Where data are

insufficient (e.g., highly migratory species and for-hire recreational fishing activities), targeted data collection efforts have been undertaken to begin addressing identified gaps.

From a fisheries compensation perspective, data availability and suitability vary significantly across and within the commercial fisheries, for-hire recreational fisheries, and shoreside processing industries. Existing programs have addressed limitations in commercial and for-hire recreational fisheries data—such as spatial resolution, revenue dependence on a project area, and evidence of harm—with varying degrees of success.

For shoreside processors, the onshore nature of these businesses (one step removed from the water) and data constraints have made it challenging to integrate them effectively into claims-based compensation programs. In particular, uncertainty remains about the extent to which shoreside businesses will experience economic impacts from offshore wind, how those impacts can be attributed to specific offshore wind projects, and whether such impacts can be distinguished from broader market, environmental, or economic factors. The ongoing regional fund effort is exploring new approaches to address these and other data-related issues to support the fair, efficient, and effective operation of a regional compensation program.

As offshore wind development in Nova Scotia and Canada remains at a very early stage, there's an opportunity to proactively identify and address data limitations and gaps, informed by the US experience, to support the development of a credible and evidence-based approach to fisheries compensation.

Liaison officer

In the US, fisheries liaisons (FLs) serve as the primary point of contact between offshore wind developers and fishers and fisheries stakeholders. This approach has proven effective in supporting early engagement, facilitating two-way communication, and identifying opportunities to avoid and mitigate impacts. It represents a model that Nova Scotia and Canada should seek to replicate.

Fisheries Communication Plans developed for offshore wind projects typically include descriptions of FL roles and responsibilities. These can be reviewed and considered as governments develop an approach to fisheries compensation. Qualifications for the FL role should include, at a minimum:

- A bachelor's degree or relevant professional experience in the field of fisheries science, fisheries management, or related fields
- An in-depth understanding of the fishing industry, practices, interests, and issues in Atlantic Canada waters
- Familiarity with fisheries management/policy across commercial and recreational fisheries
- Demonstrated experience working directly with fishers and fisheries stakeholders
- The ability to represent offshore wind project interests with fishers and fisheries stakeholders, including fisheries and community groups, statutory consultees, industry and regional forums

Traditional recruitment approaches can be effective for identifying suitable FL candidates but should be complemented by targeted outreach to academic institutions with fisheries science programs, fisheries management boards, councils, and committees, and by direct outreach to fishers.

5. The CNSOER welcomes your suggestions and feedback on the fees for bid submissions and successful bidders.

The proposed bid submission and success fees are appropriate and proportionate. They represent a relatively low level of financial exposure for well-funded and experienced offshore wind developers and are unlikely to deter participation, even in the absence of clarity around offtake arrangements and route-to-market.

It should be clarified, however, whether: (1) bidders may only be awarded a single seabed licence (which we strongly recommend); or (2) bidders may be awarded more than one seabed licence, in which case it should be clarified whether bid submission and success fees are paid on a per licence basis or on a per bidder basis.

We also recommend that success fees (not bid submission fees) be refundable to awardees and the licences be revocable if no offtake agreement for offshore wind power is secured within 10 years of the seabed licence award date.

6. **The CNSOER welcomes your suggestions and feedback on considerations and adherence to the principles listed in the Accord Acts.**

   The principles set out in the Accord Acts have been appropriately incorporated into the land tenure process to date, and the proposed bid criteria seek to adhere to those principles.

7. **There are many options and models to be considered when developing a community benefits program. The CNSOER is interested in your suggestions and feedback on how to advance community benefits. The CNSOER welcomes your suggestions and feedback on possible considerations for community benefits programs related to offshore wind development.**

   Please see the response above to Question 2 regarding Local Community Benefits Plans.

8. **The CNSOER welcomes your suggestions and feedback on possible terms and conditions for the draft Submerged Land Licence.**

   We appreciate the opportunity to provide feedback on the CNSOER's draft summary of possible Submerged Land Licence (SLL) terms. Overall, the proposed SLL framework provides a strong foundation, and we commend the CNSOER for its transparent and consultative process. While the general approach and sequencing of licence periods are familiar and workable from a developer's standpoint, several key provisions would benefit from greater definition and procedural clarity to ensure commercial feasibility and investor confidence.

   Alignment with International Practice

   The proposed SLL structure is broadly similar to the US Bureau of Ocean Energy Management's offshore wind lease model, in which a lease confers exclusive rights to undertake development activities and to submit a Construction and Operations Plan. The separation of assessment, construction, operations, and decommissioning phases aligns with international practice. In this regard, we support the framework and view it as generally consistent with how comparable jurisdictions structure offshore renewable energy rights.

   Licence Periods and Duration

   The proposed durations appear reasonable and are largely consistent with the total operational timeframe of other regimes, where operations typically span 35 years and open-ended flexibility is provided for construction. However, we recommend explicitly allowing for extensions "for good cause," consistent with other jurisdictions. We also suggest adding a provision for temporary suspension of the seabed licence at the Interest Owner's request, for example, to address unforeseen permitting or market delays. Clarity on whether the construction and operations phases can overlap would also be helpful.

   Termination Conditions

   In their current form, the proposed termination triggers appear overly broad and discretionary. To protect the legitimate interests of a developer and its financiers, these provisions should define clear cure periods, specific triggers, and consistent procedures before termination can occur. In our

experience, termination conditions are better addressed in regulations or guidance rather than in the lease itself, to avoid unnecessary rigidity.

Rentals and Levies

The proposed pre-production rental of $1,500 per km² per year appears reasonable when benchmarked against similar offshore leasing regimes. However, we encourage the CNSOER to ensure consistency with international practice on rent escalation, refundability, and payment timing, and to clarify whether rentals would continue or be suspended if the licence itself is suspended for legitimate reasons.

Financial Assurance

We support the inclusion of a financial assurance requirement, but the current description is discretionary and open-ended. In our view, the SLL should reference formulas or mechanisms defined in regulations to calculate required amounts, ensuring transparency and predictability. Consideration could also be given to incremental or staged funding, such as a deferral fund approach, to align assurance with the project's capital development schedule. The SLL should also clarify the trigger event for the commencement of commercial operations and how that affects financial assurance obligations. In other frameworks, the term "commercial operations" has caused confusion due to varying milestone standards of wind farm completion and production; therefore, we recommend defining it clearly (e.g., whether it begins at first power or after full commissioning).

Required Plans and Engagement

We recognize the importance of meaningful engagement with Indigenous communities, local communities, fishers, and other stakeholders. In addition to our comments above, we recommend providing greater clarity on the scope and timing of any required plans.

Certain plans could appropriately be required as conditions of an SLL, including obligations to prepare, publicly share, and periodically update them (e.g., the Coexistence Plan proposed in the Call for Bids criteria). Other plans, such as the Fisheries Compensation Plan, can only be developed meaningfully after the Construction, Operations and Maintenance Authorization (COMA) has been issued and specific project details are known.

Establishing a phased submission schedule for these plans, aligned with key project development and permitting milestones, would help ensure that required plans are appropriate, practical, and informed by best available data and information, while still providing governments and stakeholders with transparency and accountability throughout the project lifecycle.

Timeline for Development

We advocate that no substantial development activity be required of developers in the period immediately following seabed licence award. Specifically, as it relates to the Site Assessment Period proposed SLL terms: "The Site Assessment Period is proposed to last a maximum of six (6) years, during which the Interest Owner will carry out Site Assessment activities subject to an approved SAA and will have to submit progress reports at fixed intervals. The Interest Owner may additionally be required to submit a full and fair opportunities plan, a fisheries plan, and a community benefits plan during this period for approval by the Regulator as part of the regulatory authorization process." As at least one year of this period is expected to be consumed by offtake and transmission maturation, developers should not be obligated to increase development cost exposure through mandated activities but rather be entitled to an extension provision commensurate with the time required for transmission and offtake certainty to be realized.

9. **The CNSOER is working on establishing a Participant Funding Program. For this offshore wind Call for Information process, there will be an initial Participant Funding Program offered that will cover some reimbursement of items. The CNSOER welcomes your suggestions and feedback on considerations for a Participant Funding Program.**

   We are supportive of the Participant Funding Program as an important measure to ensure that First Nations, ocean users, local communities, and those groups and entities that will not necessarily have a direct financial interest in offshore wind seabed licences or projects can respond to the Call for Information and participate in the seabed licencing process.

10. **The CNSOER welcomes any additional feedback and comments.**

    Given the uncertainty regarding route-to-market for offshore wind development in the parcels that will be offered in the Call for Bids, very minimal development activity or expense should be required in the period immediately following seabed licence award. The global offshore wind industry has faced substantial macroeconomic and policy-related headwinds in recent years, including volatile and adverse policy changes in key markets such as the US. As a result, developers have been forced to write down many millions of dollars in investments made in good faith based on reasonable assumptions of stable policy and permit durability.

    Given this context, developers are wary of making substantial investments absent a clear path to commercialization. While Canada and Nova Scotia have sent strong market signals regarding their intent to invest in and expedite permitting for major energy infrastructure projects, developers' interest in participating in a Call for Bids would be substantially tempered if seabed licence terms or regulations required significant expenditures before the Wind West transmission concept or similar is formalized and offtake is imminent.

    In the interest of advancing the industry in the intervening time, however, Nova Scotia could consider soliciting proposals from seabed licence holders for near-term development activities supported by government grants. These grants would be refundable to Nova Scotia at FC, thereby incentivizing licence holders to undertake work in the near term and progress toward permitting while stimulating economic activity. This type of "pre-development program" is currently being advanced by the New York State Energy Research and Development Authority in response to the challenging investment environment for offshore wind in the US, to allow projects to move more quickly toward construction when policy conditions improve. A comparable approach could be applied in Nova Scotia to bridge the period between seabed licence issuance and route-to-market certainty.

Parks Canada Written Feedback

Submission to Canada-Nova Scotia Offshore Energy Board for the Call for Information NS25-1R

January 2026

Parks Canada Parcs Canada

Canada

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1 Introduction

Parks Canada is responsible for the protection and presentation of nationally significant examples of Canada's natural and cultural heritage and fostering public understanding, appreciation and enjoyment in ways that ensure their ecological and commemorative integrity for present and future generations. This is achieved through administering Canada's national protected heritage places, including national parks and national park reserves, national historic sites (NHSs), national marine conservation areas (NMCAs), and national marine conservation area reserves.

Parks Canada is an intervening government department with regards to the Canada-Nova Scotia Offshore Energy Regulator (CNSOER) Call for Information. Parks Canada's expertise includes the management of protected areas.

2 Parks Canada Mandate

Parks Canada derives its mandate from several pieces of legislation including the *Canada National Parks Act* (*CNPA*).

2.1 *Canada National Parks Act*

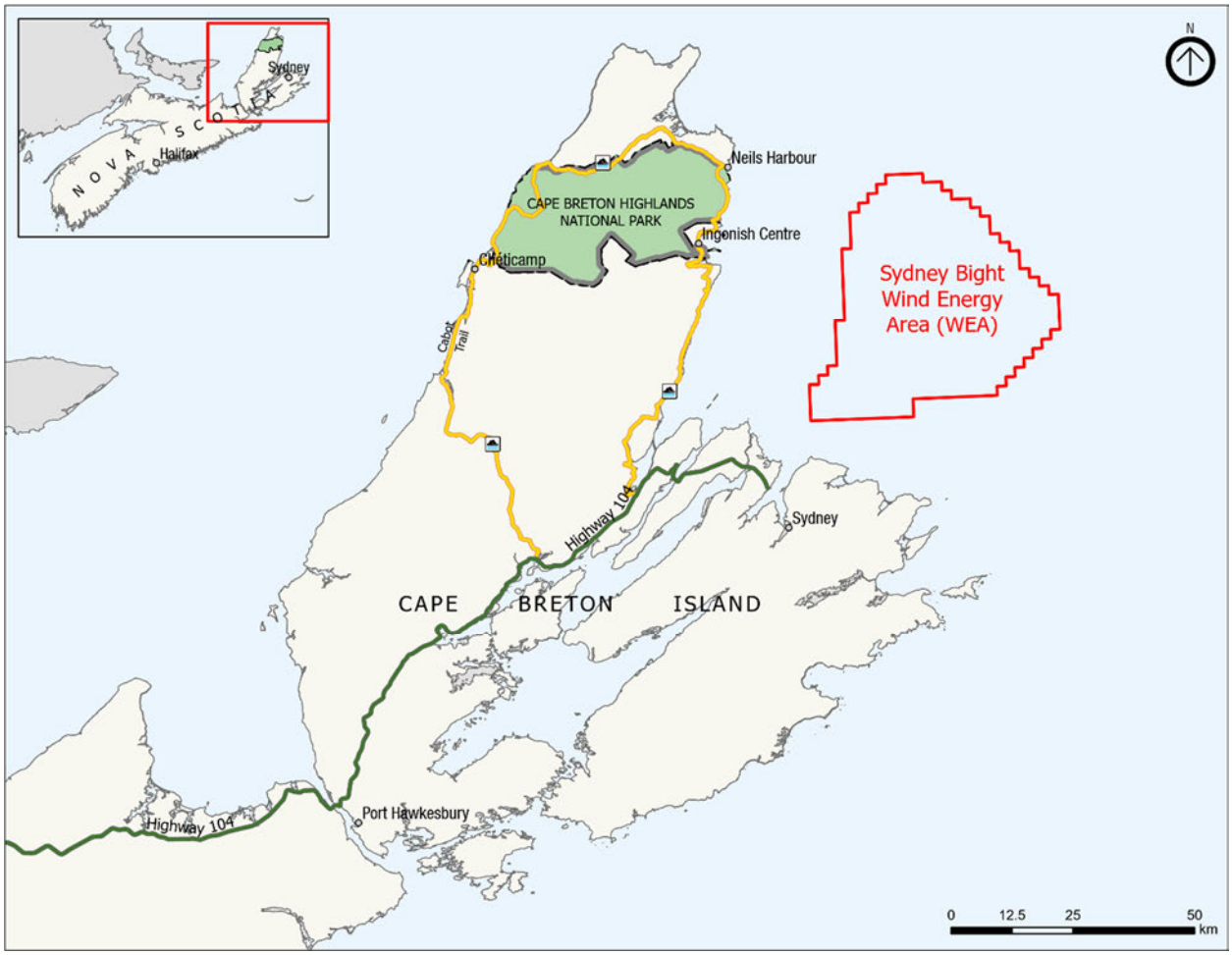
National Parks are protected areas established under the *Canada National Parks Act*. National parks are "*dedicated to the people of Canada for their benefit, education and enjoyment… and the parks shall be maintained and made use of so as to leave them unimpaired for the enjoyment of future generations.*"

The *Canadian National Parks Act* (2000, c.32) states that the maintenance or restoration of ecological integrity is Parks Canada's first priority when considering all aspects of national park management.

3 Protected Heritage Places

3.1 Cape Breton Highlands National Park

Cape Breton Highlands National Park is in proximity, 25km away from, the newly designated and recommended Sydney Bight Wind Energy Area (WEA) (Map 1).



Map 1. Cape Breton Highlands National Park and the newly designated Syndey Bight WEA.

3.1.1 Ecological Integrity

National parks have ecological integrity when their components, including native species, biological communities, natural landscapes, and ecological functions, are intact and are likely to persist. Parks Canada monitors ecological measures to provide medium- and long-term data for assessing and reporting overall park ecological integrity. In Cape Breton Highlands National Park, ecological integrity measures relevant to this assessment include:

- Atlantic Salmon (*Salmo salar*) - An anadromous fish that uses habitat in the park and in the ocean, which could include areas of offshore wind development.
- Bicknell's Thrush (*Catharus bicknelli*) - A species at risk that is very rare and not increasing in Cape Breton Highlands National Park. Bicknell's Thrush migrate to the Caribbean for wintering habitat and therefore any wind turbines in their migration route may further reduce their survival rates.

Environment and Climate Change Canada and Fisheries and Oceans Canada will provide advice on the implications related to birds and fish.

3.1.2 Visitors

Cape Breton Highlights National Park includes a third of the Cabot Trail and is an important tourism destination in Nova Scotia (an important industry for the province). The park receives over 333,000 visitors in high visitation years. The Cabot Trail is regularly described as a "world renowned drive". Given that the mandate of Parks Canada includes providing enjoyment to Canadians, this visitor experience is important.

Approximately 25 lookoffs in Cape Breton Highlands National Park are towards the ocean and approximately 26 trails include views of the ocean or are specifically to view the ocean. Parks Canada also offers a nighttime guided hike along the ocean. In a 2018 survey of visitors, the top ranked most enjoyable part of the visit was the incredible landscape and scenery of the park, and the views of the surrounding seascape and ocean. The value of the seascape and ocean views is reflected in visitor photos posted in social media where a high percentage of the photos include ocean views.

As a result, Cape Breton Highlands National Park meets all the criteria for the most sensitive locations to intrusions to visual landscapes:

- Importance to Visitors:
    - There are large numbers of visitors.
    - Visitors are likely to be engaged in outdoor recreation with attention or interest likely focused on the landscape and on particular views as evidenced by the trails and lookoffs.
    - Views are an important contributor to the visitor experience as evidenced by photos in social media.
- Context:
    - Cape Breton Highlands is a remote and wilderness area.
    - No industrial development currently exists within the viewscapes.

4 Considerations on Parcel Selection

4.1.1 Sydney Bight WEA and Cape Breton Highlands National Park

Given the importance of viewscapes in Cape Breton Highlands National Park, international best practice would be to set wind farms back far enough so that there is a negligible change in the viewscapes from within the park (IEMA 2013, White, 2020). Coastal national parks are considered sensitive relative to other locations wherein a low magnitude of effect may have a significant effect (DTI, 2005).

Parks Canada modeled what turbines would look like from five key lookoff points located along the eastern coast of Cape Breton Highlands National Park using ArcGIS Pro-Global Scene. Potential visual impacts were assessed by placing a row of 3D Animated Wind Turbines having a rotor diameter of 236 m and total height of 310 m at 10 D horizontal spacing along grid lines beginning at 25 km from the coast and extending every 5 km to 65 km distance. Wind turbines were visible from all five lookoff locations beginning at the 25 km distance and extending out to 65 km. The purpose of this analysis was to illustrate the potential distance within the proposed

WEA where turbines could be visible from key look-off locations from Cape Breton Highlands National Park potentially causing a non-negligible effect.

Sullivan (2013) and Wieduwilt & Wirth (2018) found that wind farm facilities with structures up to 350 m in height can be visible from distances of 42 km and up to 50 km, respectively. Smaller to moderately sized installations can remain a "major focus of visual attention" at distances of up to 16 km. Both studies noted that visibility increases from elevated viewpoints. According to Wieduwilt & Wirth (2018), turbines approximately 200 m tall are visible from up to 30 km in lowland areas and up to 80 km in low mountain ranges. Sullivan (2013) also observed that wind farms located nearly 29 km away are typically "no longer perceived by a casual observer," and those beyond 40 km are only visible "with magnified vision." How these turbines are actually seen will be influenced by many factors such as weather, glare, time of day/night, refraction of light off the water, reflectivity of the structures, etc.

Several countries have developed and/or implemented visual impact assessment processes to help inform offshore wind development locations, many of which include seascape sensitivity analyses including protected areas (White, 2020). In parts of Europe visual impact assessments have been used as part of the Environmental Assessment processes, particularly Strategic Environmental Assessments, and have resulted in distance recommendations for protecting sensitive coastlines (White, 2020). Germany favours a 30 km minimum distance from shore, with implemented schemes averaging 55 km offshore. The Netherlands and Belgium allocate areas around 22 km from the coast, with newer development zones significantly further offshore (35-60 km).

Visual impacts may not be considered in a project assessment (*IAA 2019*) and will therefore need to be determined during parcel selection. Viewscapes within Cape Breton Highlands National Park are an important component of visitor experience and are highly sensitive to visual intrusions. A 25 km buffer is likely to result in non-negligible visual impacts, whereas a buffer greater than 45 km is more likely to result in negligible impacts on viewscapes.

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Offshore Wind Call for Information NS25-1R

Environment and Climate Change Canada's (ECCC) Canadian Wildlife Service (CWS) and Science and Technology Branch (STB) Joint Response to the Canada-Nova Scotia Offshore Energy Regulator

Final Response – January 13, 2026

Introduction

Overview

This document provides Environment and Climate Change Canada's (ECCC) Canadian Wildlife Service (CWS) and Science and Technology Branch (STB) joint response to the Canada-Nova Scotia Offshore Energy Regulator's (CNSOER) Call for Information (CFI) related to the initial bids process for issuing Submerged Land Licenses (SLL) within three Wind Energy Areas in Nova Scotia's offshore (Sydney Bight, French Bank, and Middle Bank).

ECCC welcomes continued engagement with CNSOER regarding the information provided in this submission and encourages the Regulator to reach out with any questions, requests for clarification, or opportunities for further discussion as parcel design, licensing, and offshore wind planning advance.

Scope and Definitions

The scope of this response is limited to components of the CFI directly relevant to aspects of ECCC's wildlife-related mandate, specifically the protection and conservation of migratory birds and relevant species at risk (hereafter aerofauna) and their habitats. For the purposes of this response, *migratory bird* means species to which the *Migratory Birds Convention Act, 1994* (MBCA) applies, and *species at risk* means non-aquatic, airborne species listed under the *Species at Risk Act* (SARA). Additionally, *marine bird* means species that actively use marine habitats during part of their annual life cycle, including resting on the water surface or diving for prey, whereas *marine transients* are species, including birds, bats, and invertebrates, that primarily move through the marine environment by flying over it (e.g., during pre- or post-breeding period or to forage in the airspace) and are not known to rely on marine habitats. *Marine vagrants* are only observed sporadically in Atlantic Canada, and seldom enough to be considered a seasonal visitor.

Accordingly, ECCC's comments include wildlife-related considerations associated with:

- Identifying parcels within the government designated Wind Energy Areas;
- Potential evaluation criteria for bids submitted as part of the offshore wind Call for Bids process;
- Terms and conditions to be potentially included in the draft Submerged Land Licence; and
- Additional feedback and comments.

ECCC is not providing comments on elements of the CFI that fall outside this mandate, including:

- Coexistence;
- Considerations for fisheries compensation;
- Proposed fees for all bid submissions and successful bidders;
- Principles listed in the Accord Acts;
- Community benefits; and
- Participant funding program.

This response does not address other departmental mandates that may be relevant to offshore wind energy development, such as weather and climate services, water monitoring, air quality, or pollution prevention.

Status of information

The information provided by ECCC in this CFI response reflects ECCC's best available knowledge as of January 13, 2026. Offshore wind-related work is ongoing, and ECCC is advancing several work plan items that are expected to generate improved datasets, analytical tools, and regulatory guidance in both the near and longer term. As such, the recommendations presented here should be understood as preliminary and evolving. They are intended to inform early planning and regulatory discussions and should not be relied upon in isolation to support long-term decisions or detailed engagement with proponents without further coordination with ECCC. This information is expected to be revisited and refined as new evidence, analyses, and guidance becomes available.

Precautionary approach

While there is some existing knowledge related to baseline data collection, effects monitoring, and mitigation measures for offshore wind development, significant uncertainties remain regarding how these tools translate into effective planning and siting decisions, particularly in the offshore environment and at the scale currently being assessed. In recognition of these uncertainties, ECCC recommends that a precautionary approach be applied in early planning and licensing decisions, with an emphasis on avoiding areas where offshore wind development is more likely to result in adverse effects to migratory birds, species at risk, or sensitive habitats. Where there is a high likelihood of mortality or displacement and limited confidence in the effectiveness of available mitigation measures, avoidance at the parcel or licensing stage may represent the most effective risk management option.

Continued technological innovation, targeted data collection, and the use of advanced monitoring tools will be essential to improve understanding of wildlife interactions with offshore wind infrastructure over time, strengthen mitigation effectiveness, and support adaptive management as offshore wind development progresses.

ECCC Responses to Relevant CFI Components

The following sections reproduce the CNSOER's inquiries as presented in the CFI Written Feedback Form (available here: Offshore Wind Call for Information NS25-1R - Written Feedback - Intellistack), followed by ECCC's corresponding responses.

1) Identifying parcels within the government designated Wind Energy Areas

CNSOER Inquiry

Governments have selected Sydney Bight, French Bank, and Middle Bank for consideration in this offshore wind Call for Bids. Within these wind energy areas, the CNSOER will be designing parcels based on feedback from Indigenous groups and rights holders, the fishing sector, the public, industry, government departments, and other interested stakeholders, as well as nominations from potential wind developers. The parcel design will be guided by the following details from governments Strategic Direction letter:

- All identified parcels that are recommended to be included in the Call for Bids should have a cumulative generating capacity of up to approximately 3000 megawatts (MW) with the possibility up to 5000 megawatts (MW) based on results of this process. These parcels will enable the potential issuance of multiple Submerged Land Licences.
- Parcel identification should consider and balance the following factors:
    - proximity to shore (prioritizing parcels closer to shore);
    - orientation with prevailing wind direction, to the extent possible;
    - existing onshore grid infrastructure;
    - existing port infrastructure, and/or transmission options;
    - interactions with existing ocean users and activities, including the fishing and seafood industries;
    - potential for adverse impacts to any established or asserted Aboriginal and treaty rights;
    - existing and/or future navigation lanes or corridors;
    - sensitive benthic habitats;
    - important marine and/or identified critical habitat; and
    - any other considerations that the Regulator deems relevant and appropriate.
- The spatial extent of identified parcels should be based on a moderate MW/ square km (km2) density and include a buffer to accommodate for potentially unsuitable areas for project development.
- Parcels should consider future opportunities for project expansion and/or multiple developers operating simultaneously within a Wind Energy Area. The potential for future parcels to be identified in subsequent years (up to annually for the next five years) should also be a planning consideration.
- Specific details for the following designated Wind Energy Areas should be taken into consideration:
    - Sydney Bight:
        - At least one (1) parcel should be identified in Sydney Bight.

        - Parcel identification should focus on areas within the Wind Energy Area that are technically suitable for fixed-bottom offshore wind development.
        - The parcel should be large enough to accommodate a project with a generating capacity up to 500 MW
    - Middle Bank
        - At least two (2) parcels should be identified on Middle Bank.
        - Each parcel should be large enough to accommodate projects with generating capacities of up to 1,000 MW (2,000 MW total initially, with the potential for additional capacity to be considered upon review)
    - French Bank
        - At least one (1) parcel should be identified on French Bank.
        - Parcel identification should focus on areas within the Wind Energy Area that are technically suitable for floating offshore wind development.
        - The parcel should leave a buffer on either side of the existing, but abandoned, pipeline corridor that runs through the Wind Energy Area.
        - The parcel should be large enough in spatial area to accommodate a project with a generating capacity of up to 500 MW.

Please note that the CNSOER retains the authority to accept nominations for parcels but any nominations that are received will still be assessed against the factors described above and be located within the three identified Wind Energy Areas. To nominate parcels within these Wind Energy Areas, please use the offshore wind nomination form.

The CNSOER welcomes your suggestions and feedback on the government identified Wind Energy Areas (Sydney Bight, Middle Bank, and French Bank) and the factors the CNSOER will use to design parcels within those Wind Energy Areas.

ECCC Response

ECCC offers the following comments regarding *Potential evaluation criteria for bids submitted as part of the offshore wind Call for Bids process*, with a focus on considerations for identifying lower risk offshore wind locations for aerofauna.

Overview, Data Gaps, and Ongoing Work

Currently, available data does not provide sufficient spatial coverage and resolution to determine precise parcel placement within Wind Energy Areas (WEAs) that would minimize impacts to aerofauna. While regional-scale analyses can identify areas of relatively higher or lower use by aerofauna, fine-scale spatial differentiation within WEAs remains uncertain, particularly for highly mobile species. In addition, movement and habitat use by aerofauna offshore is dynamic, meaning areas of higher use can shift seasonally and interannually. This presents a challenge for offshore wind planning, as wind energy infrastructure is static once operational, while aerofauna use of the marine environment is not.

As part of the Regional Assessment (RA) process, ECCC previously provided spatial analyses to support early planning, including the *Pelagic Aerofauna Overlap with Potential Future Development Areas* analysis, which examined overlap between select marine bird species distributions and earlier conceptual development areas. That analysis was based on preliminary offshore wind areas that have since been refined into the designated WEAs, including Sydney Bight, Middle Bank, and French Bank. ECCC is updating this work, which will improve relevance for parcel design and subsequent impact assessments. However, it is important to note that these updates require time to complete, given the need to incorporate new data, methodological refinements, and emerging scientific understanding.

In the short term, ECCC is developing and/or updating data products and guidance that should be available to help inform parcel design, including:

- Permitting and regulatory considerations for aerofauna;
- Offshore Atlantic Canada marine aerofauna species list (identifies marine birds, marine transients, and marine vagrants under ECCC's mandate in the region);
- Offshore wind and aerofauna Valued Ecosystem Component (VEC) prioritization guidance;
- Mapping of priority species habitat use and distribution;
- Marine bird relative collision vulnerability rankings;
- Marine bird relative displacement vulnerability rankings;
- Pathway of effects modelling and identification of critical pathways; and

- Site Assessment and characterization guidance (including use of existing data and recommended protocols for new data collection, where required).

Together, these updated products are intended to support identification of priority species and critical effects pathways at the WEA scale, rather than to prescribe precise parcel locations. ECCC anticipates that these products and guidance will be updated periodically over time to reflect changes in species population or conservation status, evolving risks or priorities, and advances in monitoring and analytical approaches. With these updates, ECCC expects to be better positioned to identify which species and effects pathways warrant particular focus in project-level Impact Assessments within each WEA. This adaptive approach is intended to ensure that planning and regulatory advice remains current, evidence-based, and responsive to emerging risks.

In the longer term, ECCC has additional planned and ongoing work to collect baseline data relevant to offshore wind and to develop additional data products and guidance. Although these products may not be available before the first parcels are identified, they can be used to inform subsequent parcel identification and more generally to assist proponents navigating regulatory and impact assessment processes for offshore wind projects. As of January 2026, key components of this additional work could include:

- **Regional and site-specific baseline data collection:** Conducting targeted at-sea surveys, tracking studies, colony monitoring, and acoustic and radar monitoring to improve understanding of the spatial and seasonal distribution, movement patterns, and activity of aerofauna across Atlantic Canada's offshore waters and within proposed WEAs;
- **Predictive modelling and risk assessment tools:** Developing and refining seasonal and species distribution, density, and movement models, informed by survey and tracking data, to support collision and displacement risk modelling, early planning and licensing decisions, and project-level impact assessments;
- **Population and cumulative effects assessment:** Establishing population baselines and applying flexible, species-based frameworks to assess cumulative effects of offshore wind development and other pressures on migratory birds and species at risk at regional and project scales;
- **Cumulative effects assessment:** Demonstrating a flexible framework (i.e., https://doi.org/10.1016/j.eiar.2025.107912) to assess the cumulative effects of offshore wind energy development and other pressures on migratory birds, using Northern Gannets (*Morus bassanus*) in Atlantic Canada as a case study, to support future cumulative effects assessments;

- **Mitigation database:** Develop a pathway of effect model and a related mitigation database, noting where mitigative effectiveness has been documented, that could be applied during various phases of offshore wind energy development (building upon Gulka et. al, 2025: *Offshore Wind and Aerofauna: Avoidance Remains the Best Bet Amid Limited Mitigation Evidence*; pre-print available at: https://doi.org/10.1101/2024.08.20.608845); and
- **Guidance development**: Developing guidance for mitigation, offsetting and compensation, adaptive management, collision estimation, and pre- and post-construction effects monitoring.

The targeted data collection (first bullet above) is intended to complement existing regional datasets and will progressively improve the evidence-based information available to inform parcel design, species prioritization, and effects assessment, recognizing that uncertainty will remain.

ECCC has also prioritized data mobilization in support of offshore wind planning and regulatory processes. Work is underway to make internal datasets and analytical products publicly available, to the extent possible, to support proponents, CNSOER, the Impact Assessment Agency of Canada (IAAC), Indigenous groups, and other regulators in site selection, impact assessment, cumulative effects analysis, and permitting processes. Improved access to standardized datasets is intended to support transparency, reduce duplication of effort, and promote consistency across assessments. All newly collected datasets will be archived on ECCC's Open Data platforms and/or third-party online platforms (i.e., Movebank for tracking data; OBIS Canada for vessel-based survey data).

Available Information and Analytical Products

Until the information discussed above is available, **ECCC recommends** that CNSOER refer to the following existing products developed for the Regional Assessment for Offshore Wind Energy Development in Nova Scotia, as these products remain relevant for informing parcel identification at a strategic level:

- Avian Movement Models in Support of the Regional Assessments for Offshore Wind Energy Development supports screening for movement corridors and bottlenecks relevant to collision and barrier effects;
- Colonial Bird Theoretical Foraging Radii supports identification of colony-influence zones and expectations for higher use and indirect effects within foraging ranges;

- Using shorebird tracking data to support a risk assessment related to offshore wind development in Atlantic Canada supports identifying timing windows, movement pathways, and areas of repeated use relevant to relative-risk screening;
- Atlantic Offshore Bat Observation Map and Database supports screening for bat occurrence and identifying conditions/areas where risk may be elevated;
- A Flexible Framework for Assessing the Cumulative Effects of Offshore Wind Energy Activities and Other Pressures on Aerofauna provides a species-based, step-by-step approach to regional-scale cumulative effects assessment that can support spatial optimization of offshore wind siting to minimize cumulative effects;
- Motus as a Tool for Offshore Wind Assessment and Monitoring: a Knowledge Review supports monitoring design and clarifies how Motus can be applied (and its limitations) in offshore wind assessment and monitoring; and
- Strategies for Mitigating Impacts to Aerofauna from Offshore Wind Energy Development: Available Evidence and Data Gaps summarizes the evidence base for mitigation options and key uncertainties, highlighting that avoidance through macrositing remains a best option for aerofauna.

These products collectively support risk-informed planning; however, they do not eliminate uncertainty or prescribe an optimal project design or parcel layout to minimize risks to aerofauna.

Additional publicly available tools and guidance relevant to informing parcel design and other regulatory processes are presented under Section 4: *Additional feedback and comments*.

Key Wildlife Considerations for Parcel Design

Globally, the available evidence indicates that most mitigation approaches proposed to minimize effects of offshore wind developments on birds and bats lack field testing and/or demonstrated effectiveness in an offshore wind context (Gulka et al., 2025). Given this limited evidence base, avoidance of effects through careful macro-siting at the parcel identification stage remains the single best available option for reducing impacts to aerofauna (Gulka et al., 2025). Therefore, **ECCC recommends** that CNSOER emphasize avoidance of effects to aerofauna in parcel design. Given current aerofauna data limitations within WEAs, this should be implemented as a relative-risk screening approach (avoiding areas with comparatively higher vs lower risk) with precaution applied where uncertainty is greatest, rather than attempting fine-scale optimization.

How to apply relative risk screening

ECCC's intent is that relative-risk screening be applied at the WEA scale, not as fine-scale optimization within WEAs. *Comparatively higher risk* refers to areas where multiple lines of evidence indicate consistently higher aerofauna use and/or higher likelihood of key effects pathways (e.g., collision, displacement, barrier effects, attraction/disorientation), including seasonal concentrations or repeated use across years. *Comparatively lower risk* refers to areas with consistently lower relative use across available datasets and seasons, fewer converging effects pathways, and lower sensitivity given the species present. Data gaps should not be interpreted as low risk; uncertainty should be described explicitly and precaution applied where uncertainty is greatest, particularly for migratory species and species at risk.

Key considerations include:

- Prioritizing avoidance of comparatively higher-risk areas identified through multiple lines of evidence (e.g., migration corridors, persistent foraging/aggregation areas;
- Treating uncertainty explicitly (i.e., absence of data is not evidence of low use), and applying precaution where consequences could be high
- Considering settings that are more likely to concentrate aerofauna use or concentrate infrastructure and activity—such as nearshore areas, bank-associated habitats, and shared landfalls/cable corridors—because these can drive higher exposure and cumulative effects.

Nearshore considerations

Nearshore areas, including areas near the shores of offshore islands, generally present higher relative risk for aerofauna due to:

- Increased overlap with migratory landbirds and bats, particularly during spring and fall migration;
- Greater potential for light attraction effects, including disorientation and altered movement behaviour; and
- Overlap with foraging areas and movement corridors for multiple taxa.

While proximity to shore is a stated planning consideration for technical and infrastructure reasons, **ECCC recommends** that nearshore risk should be carefully weighed in parcel

design through the use of buffers, spacing, density controls, and enhanced mitigation, rather than assuming nearshore areas are lower risk for wildlife.

With respect to buffers, **ECCC recommends** maintaining a 25 km buffer from coastlines (see page 241 of *Regional Assessment of Offshore Wind Development in Nova Scotia: Final Report* [RA Final Report], available at: https://iaac-aeic.gc.ca/050/documents/p83514/160595E.pdf). Parcel identification should also consider potential overlap with marine bird foraging areas.

For interim information on marine bird foraging areas, refer to the following key resources:

- Page 153 of RA Final Report;
- Ronconi et al. 2022, available at: https://doi.org/10.3389/fmars.2022.816794; and
- ECCC's *Colonial Bird Theoretical Foraging Radii*, available at: https://iaac-aeic.gc.ca/050/documents/p83514/159035E.pdf)

Bank-associated and offshore habitat considerations

Areas such as Middle Bank and French Bank are associated with bathymetric and oceanographic features that can influence prey availability and attract marine birds, including species at risk and species assessed as Special Concern, Threatened, or Endangered by the Committee on the Status of Engendered Wildlife in Canada (COSEWIC) (e.g., Leach's Storm-petrel, COSEWIC-assessed Threatened). While these areas may be technically suitable for development, parcel design should consider how turbine placement may impact bank-associated marine bird foraging dynamics, seasonal aggregations, and cumulative exposure over time. ECCC is working to produce/update datasets and models that could be relevant, e.g., offshore densities of key marine birds; CNSOER is encouraged to contact ECCC for the most up-to-date information.

Onshore infrastructure considerations

Although parcels are offshore, their location and configuration directly influence the type, location, and intensity of onshore infrastructure, including cable landfalls, export cable routing, ports, and transmission upgrades. From a wildlife and cumulative effects perspective, **ECCC recommends** that parcel design should consider:

- The potential for multiple projects to converge on the same coastal landfalls. While shared landfalls can reduce the number of disturbed shoreline locations, they can also concentrate impacts at a single site through intensified construction, repeated

disturbance over time (e.g., additional tie-ins and maintenance), and associated onshore infrastructure which can impact coastal habitats used by aerofauna;

- Interactions with coastal migration corridors and bottlenecks, where lighting, clearing, and linear infrastructure can elevate collision and disorientation risk;
- Port and staging area use, including increased vessel traffic, lighting, and disturbance affecting coastal wildlife; and
- The need for onshore transmission corridors, which can contribute to habitat fragmentation and bird collision risk if not planned strategically (e.g., risks may be elevated if corridors interfere with daily or migratory movements).

Early consideration of these onshore implications can help avoid transferring environmental pressures from offshore areas to the coast and support more integrated cumulative effects assessments.

Other factors relevant to parcel identification

The Strategic Direction letter indicated that parcel identification should consider "*important marine and/or identified critical habitat*". **ECCC recommends** that parcel identification should also consider proximity to National Wildlife Areas, Migratory Bird Sanctuaries, Key Biodiversity Areas, and other protected areas relevant to aerofauna.

In addition to biological considerations, parcel identification could consider factors that influence the predictability and manageability of wildlife effects, such as:

- Spatial separation between parcels, which can reduce barrier effects and help maintain movement corridors;
- Parcel shape and orientation, which can influence flight behaviour when multiple projects are present;
- Opportunities to phase development, allowing early projects to inform later ones through adaptive management; and
- Flexibility in layout within parcels, enabling micro-siting adjustments as new information becomes available (e.g., through Site Assessments).

WEA-specific risk drivers (coarse screening)

The following WEA-level considerations are intended to support early relative-risk screening (not to prescribe parcel locations) and should be refined as updated analyses and new data become available.

- **Sydney Bight:** parcel design should consider nearshore and migration-related risks (including migratory landbirds and bats during spring and fall migration and the potential for coastal movement corridors and bottlenecks). Parcel design should also consider how onshore infrastructure choices (e.g., landfalls, lighting, and transmission corridors) may contribute to cumulative effects in coastal areas.
- **Middle Bank:** parcel design should consider bank-associated habitat features that can influence prey availability and marine bird use, including potential seasonal aggregations and effects pathways related to displacement and cumulative exposure over time.
- **French Bank:** parcel design should consider bank-associated habitat features that can influence prey availability and marine bird use, including potential seasonal aggregations and effects pathways related to displacement and cumulative exposure over time, as well as relevant nearshore and onshore infrastructure considerations.

Future Development and Cumulative Effects

From a wildlife management perspective, cumulative effects of the emerging offshore wind industry on aerofauna are strongly influenced by the number, scale, spatial configuration, and temporal sequencing of offshore wind projects within and across WEAs, and by how offshore wind-related effects interact with the effects of other past, present, and reasonably foreseeable physical activities (including other offshore wind and non-OSW activities).

Given the Strategic Direction that "*parcels should consider future opportunities for project expansion and/or multiple developers operating simultaneously within a Wind Energy Area, and the potential for future parcels to be identified in subsequent years*," **ECCC recommends** that CNSOER define, at an early stage, reasonably foreseeable development scenarios for Nova Scotia and for each WEA to support cumulative effects assessments.

Without a common set of reasonably foreseeable development scenarios, cumulative effects assessments may be difficult to compare across proponents and may underestimate cumulative exposure and risk, particularly for migratory wildlife species that may interact with offshore wind infrastructure (and other sources of effects) across large

spatial and temporal scales. Defining these scenarios would also provide a consistent basis for proponents' project-level cumulative effects assessments in Impact Assessments.

At the Nova Scotia scale, **ECCC recommends** that scenarios could include illustrative offshore wind build-out cases aligned with provincial and/or federal energy objectives (e.g., low/medium/high development cases) and/or logistical constraints (e.g., grid capacity and transmission availability).

At the WEA scale, **ECCC recommends** that scenarios could include, to the extent practicable, a set of planning-level (illustrative) build-out assumptions for use in cumulative effects assessment, including:

- Maximum anticipated generating capacity within the WEA (i.e., assumed build-out in MW);
- Representative turbine technology assumptions (e.g., turbine class - https://nrel.github.io/turbine-models/);
- Planning-level assumptions regarding turbine spacing and/or layout density;
- Anticipated phasing or sequencing of development over time; and
- The potential number of projects and Submerged Land Licences that could be issued.

Providing this information would support more consistent and precautionary cumulative effects assessment conducted by proponents, regulators or Indigenous groups within and across WEAs at a regional scale, including aggregate collision and displacement risk, barrier effects and changes in movement patterns, cumulative habitat loss or functional habitat alteration, and overlapping construction and operational activities over time.

Summary

In summary, current science supports identifying areas of comparatively higher or lower relative risk for aerofauna at the WEA scale, but does not support fine-scale parcel optimization at this time. Given dynamic habitat use, data limitations, and the likelihood of phased and cumulative development, parcel design should be informed by:

- Strategic avoidance of known high-use and high-uncertainty areas where feasible;
- Careful consideration of nearshore, bank-associated, and onshore-related risks;
- Explicit planning for future development and cumulative effects; and

- A precautionary, adaptive approach that allows for refinement through project-level assessment, monitoring, mitigation, and progressive data mobilization.

This approach supports a balanced parcel design that integrates wildlife protection with technical, economic, and social considerations, while maintaining flexibility as offshore wind development progresses and new information becomes available.

2) Potential evaluation criteria for bids submitted as part of the offshore wind Call for Bids process

CNSOER Inquiry

- Bid submission categories that the CNSOER is considering include:
    - Technical Expertise and Project Delivery Capacity
        - Project Experience
        - Project Plan
        - Pre-feasibility Study
    - Financial Strength and Project Delivery Readiness
        - Net Assets and Equity Ratio or Funds Under Management
        - Financial Track Record
        - Project Financing Plan
    - Engagement and Community Benefits
        - Engagement Plan that is inclusive of the Mi'kmaq of Nova Scotia, African Nova Scotian and African Descent communities, and other underrepresented and underserved groups.
        - Local Community Benefits Plan that is inclusive of the Mi'kmaq of Nova Scotia, African Nova Scotian and African Descent communities, and other underrepresented and underserved groups.
    - Supply Chain and Workforce Development
        - Supply Chain Development Plan that supports establishing an offshore wind supply chain that is inclusive, diverse, and equitable, creating opportunities for Mi'kmaq of Nova Scotia, African Nova

Scotian, and African Descent communities, and other underrepresented and underserved groups.

        - Workforce and Training Plan.
    - Environmental Sustainability and Coexistence
        - Coexistence Plan that includes references to existing ocean users and uses.
        - Biodiversity Plan that includes references to proposed measures to protect, conserve, and/or enhance biodiversity.

The CNSOER welcomes your suggestions and feedback on bid submission criteria to be used as part of the Call for Bids process, including specific criteria, criteria weighting, scoring metrics, and evaluation methods.

ECCC Response

ECCC offers the following comments regarding *Potential evaluation criteria for bids submitted as part of the offshore wind Call for Bids process*.

ECCC supports requiring a Biodiversity Plan as part of the Call for Bids process. A bid-stage Biodiversity Plan should establish a clear minimum standard that all proponents must meet to be considered for the issuance of a SLL. This approach would ensure that biodiversity protection is treated as a foundational expectation of offshore wind development, rather than a competitive differentiator among bids.

1) Mandatory Bid-stage Biodiversity Plan (minimum standard; pass/fail threshold)

ECCC recommends that CNSOER require all bidders to submit a Biodiversity Plan that meets a clearly defined minimum standard, assessed on a pass/fail basis. Establishing a mandatory baseline would provide clarity, consistency, and predictability for proponents, while ensuring that core biodiversity considerations are addressed early and uniformly across all bids. At a minimum, the plan should demonstrate how the proponent will:

- Avoid adverse effects on aerofauna through early design choices (e.g., micro-siting approach, cable routing concepts, timing windows);
- Minimize and mitigate adverse effects using evidence-based, species- and receptor-specific measures (e.g., lighting strategies, vessel management, noise mitigation, adaptive management during operation);

- Monitor and adapt through a proportionate monitoring framework that is scaled to the level of risk and uncertainty associated with the project, and that defines monitoring objectives, thresholds for action, adaptive management responses, and requirements for data management and reporting; and
- Integrate with regulatory pathways by explaining how the plan will be refined during Site Assessment and aligned with subsequent authorizations and any conditions associated with an impact assessment Decision Statement.

The mandatory plan should focus on feasibility, credibility, and alignment with regulatory expectations, rather than novelty. Requiring it at the bid stage would help ensure that biodiversity risk is considered early and consistently across all proponents.

The Biodiversity Plan submitted at the bid stage would be strategic and high-level in nature, providing a framework for how biodiversity risks are intended to be addressed. This plan could be progressively refined prior to and during the Site Assessment Period, using site-specific data and analysis, to support regulatory authorizations and, where applicable, impact assessment requirements (see ECCC response to "*Terms and Conditions to potentially be included in the draft Submerged Land Licence*" below).

2) Optional, scored module for biodiversity outcomes

In addition to the mandatory plan, CNSOER could include a separately scored module that invites bidders to propose additional measures that contribute to biodiversity conservation, restoration, or enhancement, beyond those required to avoid, minimize, or mitigate adverse effects.

Under this approach:

- Additional biodiversity measures are clearly distinguished from mandatory avoidance and mitigation requirements and are considered only once minimum biodiversity standard has been met;
- Scoring focuses on demonstrable added value, such as nature-inclusive design features, contributions to regional or ecosystem-level biodiversity objectives, innovation supported by evidence or clear implementation pathways, and commitments to data transparency and shared learning that support cumulative effects understanding; and
- This could include proposals where proponents leverage innovative approaches or technologies that meaningfully advance understanding of offshore wind-wildlife

interactions, such as the testing of mitigation measures in a transparent, publicly accessible manner (e.g., data shared in a manner consistent with FAIR principles; https://www.nature.com/articles/sdata2018118) that contributes to the broader evidence base; and

- Optional measures cannot substitute for required mitigation. Proponents that fail to meet mandatory biodiversity protection requirements would be disqualified or materially disadvantaged, regardless of the scope of proposed enhancement measures.

By focusing scoring on innovations that generate transferable knowledge or reduce key uncertainties, this module could incentivize proponents to contribute to collective learning across the offshore wind sector, rather than solely to project-specific benefits.

This structure reflects elements of the Dutch offshore wind tender framework, where baseline environmental requirements are fixed and additional biodiversity outcomes are rewarded through transparent qualitative criteria. European policy and academic analyses have cited this approach as improving regulatory clarity, bid comparability, and early consideration of biodiversity in project design (e.g., Portela de Carvalho 2025; Kristensen et al. 2026).

ECCC Recommendation: To promote innovation and support additional biodiversity outcomes, ECCC recommends that CNSOER consider including an additional, optional scored biodiversity module as part of the bidding process, as described above.

References

- Kristensen, S.G., Pauwelussen, A.P., Bush, S.M. (2026). Governing biodiversity through offshore wind park tenders: A comparison of England and the Netherlands. Marine Policy, 185 (106977). https://doi.org/10.1016/j.marpol.2025.106977
- Portela de Carvalho, T. (2025). Incorporating Qualitative Criteria in Offshore Wind Tenders: Experiences in Denmark, Finland, Germany, and the Netherlands. *Ocean Development & International Law*, 1–29. https://doi.org/10.1080/00908320.2025.2587356

3) Terms and conditions to be potentially included in the draft Submerged Land Licence

CNSOER Inquiry

The CNSOER will consider feedback on any specific timelines and terms and conditions to be included in the draft Submerged Land Licence. A summary of potential terms and conditions that may be included in the Submerged Land Licence is found here. Within this summary document are various items we are looking for suggestions and feedback on.

Governments are supportive of having specific terms and conditions that address the following:

- Principles under section 98.7 of the federal version of the Accord Act and 102F of the provincial version of the Accord Act
- Inclusive engagement and/or participation
- Community Benefits
- Supply Chain and Workforce Development
- Monitoring and Reporting
- Coexistence with existing ocean users and uses
- Duration of a Submerged Land Licence, which must be at least 35 years
- Licence periods and project development milestones

The CNSOER welcomes your suggestions and feedback on possible terms and conditions for the draft Submerged Land Licence.

ECCC Response

ECCC offers the following comments regarding *Terms and conditions to be potentially included in the draft Submerged Land Licence* and the linked document "*Summary of Potential Terms and Conditions for Inclusion in the Submerged Land License*" (the document"; available at: https://cdn.cnsoer.ca/sites/default/files/2025-10/Offshore%20Wind%20Call%20for%20Information%20-%20Possible%20SLL%20TC%20Summary.pdf).

Biodiversity Requirements

Consistency of language for biodiversity requirements within the SLL Framework

ECCC notes that the draft Submerged Land Licence (SLL) framework uses inconsistent language with respect to biodiversity-related information requirements associated with the Site Assessment phase. Earlier sections indicate that proponents "may be required" to submit certain plans to support regulatory authorizations, while later sections more definitively reference a Biodiversity Plan. This inconsistency creates uncertainty regarding whether biodiversity-related information is expected as a core input to Site Assessment Authorization (SAA) decision-making, or whether it is intended to be addressed only after authorizations are issued. To improve clarity and alignment with federal environmental mandates, **ECCC recommends** that CNSOER use consistent, mandatory language throughout the SLL framework to clearly signal expectations related to biodiversity-related information requirements.

Clarification of timing for developing Biodiversity Plan within the SLL Framework

From ECCC's mandate perspective, information related to potential effects on migratory birds and species at risk is most effective when provided in advance of, or as part of, decisions to authorize site assessment activities. Early consideration of biodiversity risks supports avoidance of effects to aerofauna by informing early siting and design choices that can steer development away from comparatively high risk areas, informs appropriate conditions on site assessment activities, and enables ECCC to provide timely expert advice to CNSOER and, where applicable, to the Impact Assessment Agency of Canada.

However, the "Submerged Land Licence Periods" section does not explicitly identify biodiversity-related information among the materials required to support the issuance of a SAA, despite referencing other plans that may be required at this stage. As a result, there is a risk that biodiversity considerations could be deferred until after site assessment activities are authorized, when opportunities to shape those activities through conditions may be more limited.

ECCC recommends that CNSOER explicitly identify biodiversity-related information, including a Biodiversity Plan, as information required to support SAA decisions, either:

- Prior to issuance of the authorization; or
- As a condition that must be satisfied before specific site assessment activities may proceed.

This framing clarifies the role of biodiversity planning as a decision-support requirement, rather than a post-authorization reporting obligation.

Scope and purpose of a Site Assessment-phase Biodiversity Plan

ECCC recommends that a Biodiversity Plan associated with the Site Assessment phase should be project-specific and proportionate to the nature of the proposed site assessment activities, and should be designed to support CNSOER's determination of whether, and under what conditions, site assessment activities may be authorized. From ECCC's perspective, the primary function of this plan is to demonstrate how biodiversity considerations, including potential effects on aerofauna, have been integrated into the planning and proposed execution of site assessment activities.

The Site Assessment-phase Biodiversity Plan should be submitted in advance of, or as a condition of, the SAA, such that it can inform the scope, timing, and conditions attached to authorized activities. Unlike a bid-stage Biodiversity Plan, which is strategic in nature, this plan should be informed by site-specific context and existing scientific evidence and clearly describe how biodiversity risks will be investigated and managed during site assessment activities.

ECCC is currently developing guidance and analytical tools to support proponents through impact assessment and the various licensing phases of offshore wind development, including the Site Assessment phase. These products are intended to inform a range of planning, assessment, and regulatory activities, including supporting proponents in the development and refinement of Biodiversity Plans. In the interim, proponents are encouraged to engage early with ECCC, through CNSOER, to request site-specific advice to inform the development of a Site Assessment-phase Biodiversity Plan.

At a minimum, **ECCC recommends** that the Site Assessment-phase Biodiversity Plan should describe:

- Priority species and species groups likely to be affected by site assessment activities, including aerofauna, based on available regional information and the characteristics of the proposed site;
- The site assessment activities proposed (e.g., surveys, monitoring, installations) and how these activities have been designed or sequenced to avoid or minimize biodiversity risks;
- Key pathways of effects relevant to site assessment activities, and how these pathways will be investigated, monitored, or managed;
- Any constraints, mitigation measures, or adaptive management approaches proposed to reduce potential adverse effects during site assessment activities; and

- How information collected during site assessment will be used to refine understanding of biodiversity risks and inform subsequent regulatory and impact assessment processes.
- A data management and submission plan specifying what data will be collected during site assessment activities, and how those data will be quality-assured, documented (metadata), and provided to CNSOER in standardized formats and timelines sufficient to support technical review and authorization conditions.

This approach ensures that biodiversity considerations meaningfully inform early regulatory decisions and conditions, while recognizing that biodiversity-related information and measures will continue to be refined as projects advance through later regulatory phases. The data management and submission plan component should be scoped to the authorized activities and clearly linked to the effects pathways being investigated and any proposed mitigation/adaptive management triggers.

Termination Provisions and Linkages to IA Conditions

ECCC notes that the proposed termination provisions for the SLL do not explicitly reference conditions arising from an impact assessment (IA) Decision Statement, where applicable. Given the role of IA conditions in avoiding, mitigating, and managing adverse effects to biodiversity, clarification would be beneficial regarding how such conditions are intended to be enforced within the SLL framework.

Specifically, it would be helpful to clarify whether IA conditions are expected to be fully incorporated into Construction, Operations, and Maintenance (COM) Authorization terms and conditions, reflected through plans approved by CNSOER (e.g., Biodiversity Plans, monitoring or adaptive management plans), and/or otherwise captured through the SLL termination provisions.

Without clear linkage, there is a risk of gaps in enforceability, particularly for biodiversity-related IA conditions that require long-term monitoring, adaptive management, or ongoing compliance to support the protection and conservation of aerofauna.

To improve clarity and transparency, **ECCC recommends** that CNSOER:

- Explicitly define how IA Decision Statement conditions are carried forward into authorizations, approved plans, and SLL terms and conditions; and
- Confirm that non-compliance with IA-related biodiversity conditions is captured within the SLL termination framework, where appropriate.

This clarity would strengthen accountability, support biodiversity protection over the full project lifecycle, and improve regulatory certainty.

Rentals, Levys, and Financial Assurance

ECCC is actively examining approaches to offsetting and compensation for residual adverse effects to aerofauna and their habitats as part of its ongoing offshore wind work plan. This work is intended to support future regulatory and IA processes, including how such measures could be structured, administered, and enforced where avoidance and mitigation are insufficient. At this time, specific mechanisms for offsetting and compensation are still under development, and related guidance will evolve as offshore wind planning advances.

In this context, ECCC notes that the draft Submerged Land Licence (SLL) framework seeks feedback on the amount, mechanisms, and timing of rentals and levies, as well as on financial assurance requirements. As described, rental and levy payments are determined by licence area and project phase and are not linked to environmental performance or compliance.

Comparable offshore wind jurisdictions do not typically vary rental or levy rates based on biodiversity performance. However, many jurisdictions use financial mechanisms, including financial assurance and enforcement-linked securities, to reinforce compliance with environmental conditions, monitoring requirements, and long-term biodiversity protection measures. Exploring whether similar principles could inform the design and scope of financial assurance requirements would be consistent with international practice.

With respect to financial assurance, ECCC notes that the draft framework proposes requiring proponents, at the end of the Site Assessment Period, to submit financial assurance to cover physical decommissioning costs associated with infrastructure constructed during the Construction, Operations, and Maintenance (COM) Period. The draft does not explicitly clarify whether financial assurance could also address biodiversity-related obligations, such as offsets, compensation, or long-term environmental remediation measures, should such requirements arise from Impact Assessment outcomes or regulatory authorizations.

From a biodiversity conservation perspective, CNSOER could consider whether financial assurance mechanisms should be sufficiently flexible to accommodate future biodiversity-related obligations, should offsetting, compensation, or other corrective actions be required through IA or regulatory processes. While the specific nature of such obligations

will be clarified through ongoing federal work, maintaining flexibility at this stage would help ensure that future requirements can be effectively implemented and enforced.

To enhance while recognizing that offsetting and compensation mechanisms are still under development, **ECCC recommends** that CNSOER:

- Clarify the intended role of financial assurance in addressing potential biodiversity-related obligations, including offsets, compensation measures, and long-term remediation requirements, where these arise; and
- Ensure that the approach to financial assurance remains flexible to align with evolving federal guidance and emerging best practices in offshore wind development.

This approach would support transparency, strengthen the enforceability of biodiversity commitments, and provide regulatory certainty as the sector advances.

Engagement

ECCC notes that the proposed engagement requirements appropriately recognize a broad range of affected parties and explicitly include federal authorities, which would encompass ECCC in its role in provisioning expert advice related to aerofauna and their habitats. However, the nature, timing, and expectations of engagement with federal authorities are not specified, which may create uncertainty regarding how and when biodiversity-related expertise is intended to inform project planning and regulatory decision-making.

From a biodiversity protection and conservation perspective, early and ongoing engagement with federal authorities is particularly important during key decision points, including Site Assessment planning, baseline data collection, site layout and micrositing planning, and the development of mitigation, monitoring, and adaptive management measures. Timely engagement supports early identification of risks to wildlife, facilitates avoidance-based planning, and helps ensure that biodiversity considerations are appropriately integrated into regulatory authorizations and subsequent IA processes, where applicable.

To improve clarity and effectiveness**, ECCC recommends** that CNSOER consider specifying expectations for engagement with federal authorities, including ECCC, either within the terms and conditions of the SLL and/or through requirements associated with regulatory authorizations (e.g., Site Assessment Authorizations). This could include clarity on:

- When engagement is expected (e.g., prior to authorization decisions, during Site Assessment planning, or at defined project milestones);
- The purpose of engagement, particularly as it relates to biodiversity risk identification, data needs, and mitigation approaches; and
- How engagement outcomes are to be documented and considered in regulatory decision-making.

Clear expectations regarding engagement would support more consistent and meaningful input from federal wildlife authorities, strengthen early integration of biodiversity considerations, and improve coordination across regulatory processes. This, in turn, would help ensure that engagement contributes substantively to the protection and conservation of biodiversity throughout the lifecycle of offshore wind projects.

4) Additional feedback and comments

CNSOER Inquiry

The CNSOER will consider feedback and comments on details shared in the Strategic Direction letter from governments that are not already covered in the above sections, including feedback on the broader regulatory process for offshore wind projects.

The CNSOER welcomes any additional feedback and comments.

ECCC Comments

Publicly available tools and guidance

In the table below ECCC provides links to publicly available tools and guidance related to aerofauna that could assist CNSOER and proponents in parcel design, regulatory authorizations, and impact assessment for offshore wind (OSW) projects. Tools may include datasets of baseline information, mapping, research and other sources of information that could be important for identifying comparatively low risk areas for aerofauna. While these resources may be valuable, proponents are encouraged to engage ECCC to access the most up-to-date datasets, maps, and related products. In addition, RA products produced by ECCC are publicly available on the IAAC registry at:

- NS ECCC Phase One Submissions
- NS ECCC Phase Two Submissions
- NL ECCC Phase One Submissions
- NL ECCC Phase Two Submissions

Table 1 Existing Tools (Datasets of Baseline Information, Mapping, Research and Other Sources of Information) and Guidance Available to Support Parcel Design, Regulatory Authorizations, and Impact Assessment for OSW Projects*.

* Note: This table is not intended to be an exhaustive list of available tools, datasets, or guidance.

ID	Title/Tool	Type of Resource	Description/ Relevance	Publisher/ Lead	Geographic Scope	Application	Link
1	A Flexible Framework for Assessing the Cumulative Effects of Offshore Wind Energy Activities and Other Pressures on Aerofauna	Conceptual / assessment framework	Cumulative-effects assessment framework for aerofauna	ECCC and Bio diversity Research Institute (Ferg uson et al.)	International	Step-by-step framework for regional-scale cumulative-effects assessments adaptable to diverse species and pressure data to identify OSW arrangements that minimize impacts.	https://doi.org/10.1016/j.eiar.2025.107912
2	A framework for studying the effects of offshore wind energy development on birds and bats in the Eastern United States	Conceptual / assessment framework	Conceptual framework for OSW impacts on birds and bats	Biodiversity Research Institute (Willi ams et al.)	International	Supports impact assessment for birds and bats	https://doi.org/10.3389/fmars.2024.1274052
3	Integrated Science Plan for Offshore Wind, Wildlife, and Habitat	Conceptual / assessment framework	Integrated research plan for OSW and wildlife	Regional Wildl ife Science Collaborative	U.S. Atlantic	Provides evidence base to inform effects assessment and mitigation	https://rwsc.org/science-plan/
4	Monitoring Framework for Automated Radio Telemetry at Offshore Wind Projects	Conceptual / assessment framework	Monitoring framework using Motus tracking network	Environmenta l Technical W orking Group	U.S. Atlantic	Informs design of baseline and post-construction monitoring for birds/bats	https://motus.org/wp-content/uploads/2025/03/Monitoring-Framework-for-Automated-Radio-Telemetry-at-Offshore-Wind-Projects-v-20230315.pdf

5	Atlantic Canada Seabird Distribution, Threat and Risk Data	Dataset / Mapping Tool	Data layers on Atlantic Canada distribution of breeding seabirds, threats, and risks.	Mount Allison University (Lieske et al.)	Atlantic Canada	Baseline information on distribution, threats and risks for birds	https://zenodo.org/record/3631468#.YrlZsnbMLcs
6	Synthesizing expert opinion to assess the at-sea risks to seabirds in the western North Atlantic	Dataset / Mapping Tool	Synthesis of current knowledge on sensitivity of 13 seabird taxa in Atlantic Canada to a range of threats/pressures, including offshore wind.	Mount Allison University (Lieske et al.)	Atlantic Canada	Estimates sensitivity of Migratory Bird species to offshore wind and other threats can be used to weight pressures in future cumulative effects assessments involving seabirds	https://doi.org/10.1016/j.biocon.2019.02.026
7	ACCDC Observations	Dataset / Mapping Tool	AC CDC provides location data for species of conservation concern (S-ranks between S1 and S3S4, in addition to species considered extirpated [SX] and historic [SH]).	Atlantic Canada Conservation Data Centre	Atlantic Canada	Baseline information for species at risk	http://accdc.com//
8	ACSS (Atlantic Canada Shorebird Surveys)	Dataset / Mapping Tool	Migration surveys for shorebirds species in Atlantic Canada.	ECCC	Atlantic Canada	Baseline information of coastal shorebirds	https://naturecounts.ca/nc/default/datasets.jsp?code=PRISM-ACSS
9	Atlantic Colonial Waterbird Database (ACWD: ECCC-CWS-ATL)	Dataset / Mapping Tool	Waterbird colony census results at individual seabird colonies located in the Atlantic region of Canada.	ECCC	Atlantic Canada	Baseline information for waterbird colonies	https://naturecounts.ca/nc/default/datasets.jsp?code=GBIF_E17BFFF0
10	Atlantic Colonies - Density Analysis	Dataset / Mapping Tool	Density analysis of Atlantic and Quebec waterbird colony data.	ECCC	Atlantic Canada, Gulf of St. Lawrence	Baseline information for waterbird colonies	https://open.canada.ca/data/en/dataset/87bf8597-4be4-4ec2-9ee3-797f5eafbd97
11	Atlantic Flyway Key Shorebird Sites	Dataset / Mapping Tool	Key shorebird sites throughout the Atlantic Flyway (1, 10 and 30%	AFSI Key Shorebird Sites	Canada, USA	Baseline information of coastal shorebirds	https://atlanticflywayshorebirds.org/key-sites/

			of the biogeographic population)				
12	Atlantic Offshore Wind Environmental Research Recommendations	Dataset / mapping tool	Database of research recommendations for OSW	Tethys	International	Provides evidence base to inform effects assessment and mitigation	https://tethys.pnnl.gov/atlantic-offshore-wind-environmental-research-recommendations
13	Atlas of Sea Duck Key Habitat Sites in North America	Dataset / Mapping Tool	Sites that constitute important sea duck habitats.	Sea Duck Joint Venture	Global	Baseline information for important areas for migratory birds	https://seaduckjv.org/science-resources/sea-duck-key-habitat-sites-atlas/
14	Atlas of Seabirds at Sea in Eastern Canada 2006 - 2020	Dataset / Mapping Tool	Seabird at-sea data collected using distance sampling within a 300-m wide transect from marine vessels. Data was collected throughout the year but divided into three periods, April to July, August to November, and December to March.	ECCC	Atlantic Canada, Gulf of St. Lawrence	Baseline information for pelagic seabird seasonal densities	https://open.canada.ca/data/en/dataset/f612e2b4-5c67-46dc-9a84-1154c649ab4e
15	Avian Conservation Assessment Database	Dataset / mapping tool	Database of avian conservation scores	Partners in Flight	International	Supports impact assessment for birds and bats	https://pif.birdconservancy.org/avian-conservation-assessment-database-scores/
16	Avian Conservation Assessment Database	Dataset / Mapping Tool	Biological data and scores to evaluate the conservation status of North American birds.	Partners in Flight	North America	Baseline information for birds	https://pif.birdconservancy.org/avian-conservation-assessment-database/
17	Banque informatisée des oiseaux de mer au Québec (BIOMQ: ECCC-	Dataset / Mapping Tool	Seabird numbers and colony size in the St. Lawrence system	ECCC	Gulf of St. Lawrence	Baseline information for waterbird colonies	https://ouvert.canada.ca/data/fr/dataset/9cd6f8a1-e660-4e78-89a8-6e3f781da556

	CWS Québec Region)						
18	Barrow's Goldeneye Survey Data Collection	Dataset / Mapping Tool	Collection of Barrow's Goldeneye survey data and incidental records in Atlantic Canada.	ECCC	Atlantic Canada	Species specific baseline information	https://open.canada.ca/data/dataset/ff12e1b5-5360-44ca-99fd-944b2ba3095d
19	Canadian Important Bird and Key Biodiversity Areas	Dataset / Mapping Tool	Locations, habitats, threats, and conservation issues within Canada's IBA and KBA network	Birds Canada	Canada	Baseline information for important areas for migratory birds	https://kbacanada.org/
20	Canadian Protected and Conserved Areas Database (CPCAD)	Dataset / Mapping Tool	Database with marine and terrestrial protected areas and other effective area-based conservation measures.	ECCC	Canada	Baseline information for important areas for migratory birds	https://open.canada.ca/data/en/dataset/6c343726-1e92-451a-876a-76e17d398a1c
21	Canadian Wind Turbine Dataset	Dataset / mapping tool	Dataset of wind turbines in Canada	GoC	Canada / Atlantic region	Supports impact assessment for birds and bats	https://open.canada.ca/data/en/dataset/79fdad93-9025-49ad-ba16-c26d718cc070
22	Computerized Database of Québec Seabirds (CDQS)	Dataset / Mapping Tool	Survey of over 20 species of seabirds and herons during the breeding season, in order to monitor population dynamics through time and space. Seabird populations are influenced by food abundance and quality.	ECCC	Quebec	Baseline information for pelagic seabird seasonal densities	https://open.canada.ca/data/en/dataset/9cd6f8a1-e660-4e78-89a8-6e3f781da556
23	Critical Habitat for Species at Risk National Dataset - Canada	Dataset / Mapping Tool	The areas within which critical habitat (CH) for terrestrial species at risk, listed on Schedule 1 of the federal Species	ECCC	Canada	Baseline information of federally identified critical habitat	https://open.canada.ca/data/en/dataset/47caa405-be2b-4e9e-8f53-c478ade2ca74

			at Risk Act (SARA), occurs in Canada.				
24	CWS Atlantic COEI and BLGU Surveys 2017	Dataset / Mapping Tool	Data from coastal aerial surveys in Atlantic Canada in 2017 for Common Eiders and Black Guillemots.	ECCC	Atlantic Canada	Species specific baseline information	https://open.canada.ca/data/en/dataset/3cdc5590-f9d4-4b3a-9d6b-929df9fae4e5
25	Harlequin Duck and Purple Sandpiper Data Collection	Dataset / Mapping Tool	Observations of harlequin ducks and purple sandpipers across Atlantic Canada from aerial, boat-based, and land-based surveys. When possible, survey effort is provided as spatial lines.	ECCC	Atlantic Canada	Species-specific baseline information.	https://open.canada.ca/data/en/dataset/5e2587cf-303b-410e-b549-e7d42a8646c3
26	Informing the Design and Implementation of Offshore Motus Systems (IDIOMS)	Dataset / Mapping Tool	Design tool for offshore Motus systems	Biodiversity Research Institute	International	Informs design of baseline and post-construction monitoring for birds/bats	https://briloon.shinyapps.io/IDIOMS/
27	Marine-life Data and Analysis Team (MDAT)	Dataset / mapping tool	Spatial models and data for marine species	Duke University	U.K. / Europe	Provides spatial data relevant to habitat use and effects assessment	https://seamap.env.duke.edu/models/mdat/
28	Modelled flight height distributions for marine birds in Europe	Dataset / Mapping Tool	Boot-strapped flight heigh distribution for marine bird using vessel-based observer data from Europe	British Trust for Ornithology	UK	Baseline information for birds	https://www.bto.org/sites/default/files/u28/downloads/Projects/Final_Report_SOSS02_FlightHeights2014.xls
29	Monitoring Datasets Discoverability Matrix	Dataset / mapping tool	Matrix of monitoring datasets	Tethys	International	Informs design of baseline and post-construction monitoring for birds/bats	https://tethys.pnnl.gov/monitoring-datasets-discoverability-matrix

30	Movebank Database	Dataset / Mapping Tool	Compilation of tracking data for migratory birds.	MoveBank	International	Baseline information for birds	https://www.movebank.org/cms/movebank-main
31	Motus Wildlife Tracking Network Database	Dataset / Mapping Tool	Compilation of automated radio tracking data for migratory birds.	Birds Canada	International	Baseline information for birds, including Species at Risk, such as Bank Swallows	https://motus.org/
32	NABat Portal	Dataset / Mapping Tool	Collection of acoustic data from bat monitoring in North America. Includes (or will include) the CWS offshore bat program in Atlantic Canada for coastal, island, and offshore monitoring.	USGS	North America	Baseline information for bats	https://www.nabatmonitoring.org/
33	Northeast Ocean Data	Dataset / Mapping Tool	Seasonal spatial rasters of predicted long-term relative density of marine bird species in the US.	Northeast Regional Ocean Council	USA	Baseline information for important areas for migratory birds	https://www.northeastoceandata.org/
34	Offshore Wind and Wildlife Research Database	Dataset / mapping tool	Database of OSW-wildlife research	Regional Wildlife Science Collaborative	U.S. Atlantic	Provides evidence base to inform effects assessment and mitigation	https://database.rwsc.org/
35	Offshore Wind Environmental Monitoring Metadata	Dataset / mapping tool	Metadata repository for OSW monitoring	Tethys	International	Informs design of baseline and post-construction monitoring for birds/bats	https://tethys.pnnl.gov/offshore-wind-environmental-monitoring-metadata
36	Population Estimates Database	Dataset / mapping tool	Population estimates for bird species	Partners in Flight	International	Supports impact assessment for birds and bats	https://pif.birdconservancy.org/population-estimate-database-scores/
37	Status of Birds in Canada	Dataset / Information Tool	Population estimates and trends for bids in Canada	Birds Canada, ECCC	Canada	Baseline information for birds	https://naturecounts.ca/nc/socb-epoc/main.jsp

38	Sea Bird Distribution and Abundance	Dataset / Mapping Tool	Maps the non-breeding distribution of seabirds breeding throughout the North Atlantic.	SeaTrack	Northern Hemisphere	Baseline information for birds	https://seatrack.net/data/web-apps/
39	Seabird Tracking Database	Dataset / Mapping Tool	A collection of seabird tracking data from around the world and to further seabird conservation work.	Bird Life International	International	Baseline information for birds	https://www.seabirdtracking.org/
40	The State of Canada's Birds	Dataset / Mapping Tool	Integrates long-term monitoring data and expert assessments to report on bird population trends, identify priority conservation needs, and support evidence-based action	ECCC and Birds Canada	Canada	Baseline information for birds	https://naturecounts.ca/nc/socb-epoc/main.jsp
41	Shorebird Reserve Network	Dataset / Mapping Tool	Shorebird sites that meet WHSRN criteria, sites with a minimum threshold of 20,000 shorebirds or 1% of the biogeographic population of a species.	Western Hemisphere Shorebird Reserve Network	North America	Baseline information for shorebirds	https://whsrn.org/about-shorebirds/important-sites-map/
42	Harlequin Duck and Purple Sandpiper Survey Data Collection	Dataset / Mapping Tool	A compilation of dedicated Harlequin Duck (HADU) and Purple Sandpiper (PUSA) surveys in Atlantic Canada. Surveys were conducted by land, boat, helicopter, and plane, and range from	ECCC	Atlantic Canada	Baseline information for shorebirds and waterfowl	https://open.canada.ca/data/en/dataset/5e2587cf-303b-410e-b549-e7d42a8646c3

			September 1966 to 2024.				
43	Shorebird Science and Conservation Collective	Dataset / Mapping Tool	The collective provides a synthesis across multiple species and tagging technologies to address shorebird conservation questions.	Shorebird Science and Conservation Collective	North America	Baseline information for shorebirds	https://nationalzoo.si.edu/migratory-birds/shorebird-collective
44	US Wind Turbine Database	Dataset / mapping tool	Database of US wind turbines	USGS	U.S. Atlantic	Supports impact assessment for birds and bats	https://energy.usgs.gov/uswtdb/
45	Wind and Marine Energy Databases	Dataset / mapping tool	Databases for wind and marine energy	Tethys	International	Informs design of baseline and post-construction monitoring for birds/bats	https://tethys.pnnl.gov/databases
46	Advice on Marine Renewables Development	Guidance document	Advisory guidance on marine renewables	NatureScot	U.K. / Europe	Supports impact assessment for birds and bats	https://www.nature.scot/professional-advice/planning-and-development/planning-and-development-advice/renewable-energy/marine-renewables/advice-marine-renewables-development
47	Bat and Bird Monitoring Guidance	Guidance document	Monitoring and mitigation guidance	Ørsted	International	Informs design of baseline and post-construction monitoring for birds/bats	https://tethys.pnnl.gov/sites/default/files/publications/bat-and-bird-monitoring-guidance.pdf
48	Development of Monitoring Protocols and Guidance for Automated Radio Telemetry Studies at Offshore Wind Farms	Guidance document	Guidance for offshore Motus deployment and telemetry	Birds Canada	U.S. Atlantic	Informs design of baseline and post-construction monitoring for birds/bats	https://motus.org/groups/atlantic-offshore-wind/

49	Guidance Document for Deploying Motus Stations on Offshore Wind Turbines and Buoys	Guidance document	Guidance for offshore Motus deployment	Environmental Technical Working Group	U.S. Atlantic	Informs design of baseline and post-construction monitoring for birds/bats	Guidance-Document-for-Deploying-Motus-Stations-on-Offshore-Wind-Turbines-and-Buoys-v20230315.pdf
50	Guidance for Pre- and Post-Construction Monitoring to Detect Changes in Marine Bird Distributions	Guidance document	Pre/post-construction avian monitoring guidance	Environmental Technical Working Group	U.S. Atlantic	Informs design of baseline and post-construction monitoring for birds/bats	https://www.nyetwg.com/_files/ugd/78f0c4_f1306a57f7274165a24fb5aa56b40c21.pdf
51	Guidelines for Providing Avian Survey Information for Renewable Energy Development on the Outer Continental Shelf	Guidance document	Guidelines for avian survey requirements	Bureau of Ocean Energy Management	U.S. Atlantic	Supports design of avian baseline surveys and data collection	https://www.boem.gov/sites/default/files/documents/newsroom/Avian%20Survey%20Guidelines.pdf
52	Guidelines for Submission of Geospatial Data for Offshore Renewable Energy Development	Guidance document	Geospatial data submission standards	Bureau of Ocean Energy Management	U.S. Atlantic	Provides spatial data relevant to habitat use and effects assessment	https://www.boem.gov/sites/default/files/documents/newsroom/BSEE-BOEM-Renewable-Energy-Geospatial-Data-NTL.pdf
53	Important Marine Habitat Areas for Migratory Birds in Eastern Canada	Guidance document	Important habitat areas for marine birds in Eastern Canada.	ECCC	Atlantic Canada	Baseline information for important areas for migratory birds	https://publications.gc.ca/collections/collection_2014/ec/CW66-385-2014-eng.pdf

54	Recommendations for Using Existing Baseline Observational Survey Data	Guidance document	Guidance on integrating existing baseline data	Environmental Technical Working Group	U.S. Atlantic	Supports impact assessment for birds and bats	https://www.nyetwg.com/_files/ugd/78f0c4_69c593161e0241c1ac61c097cddf1297.pdf
55	Statistical Analyses to Support Guidelines for Marine Avian Sampling	Guidance document	Statistical methods for marine avian sampling	Bureau of Ocean Energy Management	U.S. Atlantic	Supports design of avian baseline surveys and data collection	https://www.boem.gov/sites/default/files/boem-newsroom/Library/Publications/2012/OCS-Study-BOEM-2012-101.pdf
56	National Wildlife Emergency Response Framework	Guidance documents	A collection of guidance documents related to ECCC policy, approaches and standards for response to pollution incidents involving impacts to wildlife.	ECCC	Canada	Sets standards for emergency response related to Migratory Birds.	https://www.canada.ca/en/services/environment/wildlife-plants-species/national-wildlife-emergency-framework.html
57	Renewable Energy Research	Information hub	Research program for OSW and wildlife	Bureau of Ocean Energy Management	U.S. Atlantic	Provides evidence base to inform effects assessment and mitigation	https://www.boem.gov/environment/environmental-studies/renewable-energy-research
58	Resources to Understand Potential Effects from Future Offshore Wind Development in Atlantic Canada	Information hub	OSW effects and baseline resources	NRCan	Canada / Atlantic region	Supports impact assessment for birds and bats	https://osdp-psdo.canada.ca/dp/en/search/metadata/NRCAN-WIND-1-8BD470B6-1D79-44B1-8C44-F69C8A961F92
59	Wind Energy Monitoring and Mitigation Technologies Tool	Information hub	Tool for monitoring and mitigation technologies	Tethys	International	Informs design of baseline and post-construction monitoring for birds/bats	https://tethys.pnnl.gov/wind-energy-monitoring-mitigation-technologies-tool

60	WINDExchange	Information hub	Wind energy information platform	United States Department of Energy	International	Supports impact assessment for birds and bats	https://windexchange.energy.gov/
61	Avian Stochastic Collision Risk Model	Modelling tool	Stochastic collision risk model	Marine Scotland	International	Supports collision risk modelling and mitigation planning	https://dmpstats.shinyapps.io/avian_stochcrm/
62	Using a Collision Risk Model to Assess Bird Collision Risks	Modelling tool	CRM guidance for collision risk assessment	NatureScot	U.S. Atlantic	Supports collision risk modelling and mitigation planning	https://www.nature.scot/doc/naturescot-research-report-909-using-collision-risk-model-assess-bird-collision-risks-onshore-wind
63	"Seas or risk": assessing the threats to colonial-nesting seabirds in Eastern Canada	Research Study	Cumulative effects assessment of breeding seabirds in Atlantic Canada, including threats from vessels, light pollution, oil pollution and fisheries bycatch	Mount Allison University (Lieske et al.)	Atlantic Canada	Baseline assessment of cumulative effects	https://www.sciencedirect.com/science/article/pii/S0308597X19305263
64	Additional Statistical Analyses to Support Guidelines for Marine Avian Sampling	Research study	Statistical guidance for marine avian sampling	Bureau of Ocean Energy Management	U.S. Atlantic	Supports design of avian baseline surveys and data collection	https://www.boem.gov/sites/default/files/environmental-stewardship/Environmental-Studies/Renewable-Energy/OCS_Study_BOEM_2018-063.pdf
65	Bat and Wind Energy Cooperative	Research study	Bat-wind interaction research and mitigation consortium	Bat and Wind Energy Cooperative	International	Provides evidence base to inform effects assessment and mitigation	https://www.batsandwind.org/
66	Identifying a Range of Options to Prevent or Reduce Avian Collision with Offshore Wind Farms	Research study	Collision mitigation options for offshore wind	British Trust for Ornithology	International	Supports collision risk modelling and mitigation planning	https://www.bto.org/sites/default/files/shared_documents/publications/research-reports/2011/rr580.pdf

68	Strategies for Mitigating Impacts to Birds and Bats from Offshore Wind Energy Development: Available Evidence and Data Gaps	Research study	Reviewed the scientific and grey literature to evaluate the evidence base for potential bird- and bat-related mitigation approaches for OSW	Biodiversity Research Institute, ECCC	International	Supports impact assessment for birds and bats	https://doi.org/10.1101/2024.08.20.608845
69	Predicting Seabird Foraging Habitat for Conservation Planning in Atlantic Canada: Integrating Telemetry and Survey Data Across Thousands of Colonies	Research Study	Methodology and maps of predictive distribution modelling of breeding seabirds in Atlantic Canada.	ECCC (Ronconi et al.)	Atlantic Canada	Baseline information for birds.	https://www.frontiersin.org/journals/marine-science/articles/10.3389/fmars.2022.816794/full
70	Is clean growth really all that clean? A review of the cumulative effects associated with renewable energy clean growth initiative in Canada and beyond.	Research Study	Review of CE of clean growth technologies and mitigations	Carleton University (Cooke et al.)	Canada	Cumulative Effects considerations for bats	https://cdnsciencepub.com/doi/10.1139/er-2025-0064

NOVA SCOTIA
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13 Jan 2026

Canada-Nova Scotia Offshore Energy Regulator
27-201 Brownlow Avenue
Dartmouth, NS B3B 1W2

Delivered via online submission portal

In response to CNSOER's request for suggestions and feedback on considerations for community benefits programs related to offshore wind development, NSFM offers the following comments.

- NSFM supports engagement with and consideration of Community Benefit Agreements (CBAs) for the Mi'kmaq of Nova Scotia, African Nova Scotian and African Descent communities, and other underrepresented and under served groups as part of Offshore Wind (OSW) development.
- The Regional Assessment of OSW development in Nova Scotia (January 2025) acknowledges that OSW development will place pressure on municipal infrastructure and services.
    - Municipal costs associated with supporting these projects may exceed revenues generated through property tax assessments.
    - These costs may include investments in roads to support port and supply chain activities, as well as expanded water, wastewater, and emergency services required to accommodate workforce growth and increased service demand.
- NSFM encourages the Province to consider CBAs between OSW developers and affected municipalities as part of the Call for Bids criteria. CBAs are well-established in OSW developments in jurisdictions such as the United States and the United Kingdom, including Scotland.
    - The City of Salem, a municipality in Massachusetts, will receive long-term funding for police and fire services, workforce development, community events, and climate initiatives through a CBA.
    - Community councils in Aberdeenshire, Scotland, receive annual per-MW payments and contributions to community climate funds.
    - Similar models have been used in Nova Scotia's onshore wind developments through community benefit funds overseen by local committees with municipal representation.

- Examples of these agreements are publicly available through resources such as the Sabin Center for Climate Change Law's Community Benefits Agreement Database (Columbia Law School), as well as through organizations such as Local Energy Scotland.
- There is no standardized content for CBAs, as they are intended to be tailored to the local context, addressing both community and municipal needs. CBAs may include but are not limited to:
    - Upfront and annual payments over the life of a project;
    - payments tied to megawatts produced;
    - reimbursements of costs incurred by municipalities, including legal and consulting expenses;
    - contributions to community benefit funds; and,
    - non-monetary commitments (i.e. local hiring).
- NSFM recommends that the call for bids consider the proponents' willingness and financial capacity to enter into CBAs with affected municipalities to support municipal capacity, community acceptance, and the long-term viability of OSW development.

In response to CNSOER's request for feedback on coexistence and fisheries' compensation, NSFM offers the following comments.

- NSFM recognizes that the commercial fishing and seafood sectors are critical to the economic, social, and cultural fabric of many municipalities in Nova Scotia. Municipalities have expressed concern about how OSW development and fishing activities will co-exist, as fisheries are a primary livelihood for many residents.
- NSFM supports efforts to ensure that OSW development is planned and implemented in a way that minimizes disruption to existing ocean users, while providing clear, fair, and transparent mechanisms to address potential impacts.
- Municipalities encourage governments to continue engaging with affected fishing communities to identify potential conflicts, mitigation measures, and appropriate approaches to compensating fisheries.

Kind Regards,

Juanita Spencer,
CEO, Nova Scotia Federation of Municipalities

Fisheries and Oceans Canada | Pêches et Océans Canada

PO Box 1006, P300
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January 13th, 2026

To: Canada-Nova Scotia Offshore Energy Regulator

Subject: Response to Offshore Wind Call for Information NS25-1R

Thank you for this opportunity to provide information as part of the Offshore Wind Call for Information process. In addition to this submission, DFO is committed to continued dialogue with the CNSOER to ensure that relevant departmental analysis, information, and knowledge is provided for this important process.

DFO has previously provided comprehensive information and advice to the Regional Assessment (RA) of Offshore Wind Development in Nova Scotia, informing the RA Committee's selection of Potential Development Areas (PDAs), which in turn informed the current Wind Energy Areas. DFO participated in and provided information to the Wind Energy Area Working Group led by Natural Resources Canada and Nova Scotia Department of Energy.

DFO has recently published a Canadian Manuscript Report of Fisheries and Aquatic Sciences (Curran et al., 2025) broadly describing departmental information available for the Wind Energy Areas. This report forms the majority of the department's submission, with additional comments on other topics relevant to DFO's mandate provided below. DFO consents to the department's submission being posted on the CNSOER website and in the 'What We Heard' report.

Canada

DFO welcomes any follow-up correspondence and discussion pertaining to this response and looks forward to being an active partner in the process of identifying future licensing areas.

Sincerely,

Wendy Williams
Regional Director, Aquatic Ecosystems
Fisheries and Oceans Canada

c.c.: Luke Gaulton
Donald Humphrey
Glen Herbert
Mike Wambolt
Jason Naug
Elizabeth Nagel
Emma Marotte
Colleen Smith

1. **Identifying parcels within the government designated Wind Energy Areas**

DFO is committed to working collaboratively to support the identification and delineation of offshore wind areas that meet both the need for sustainable economic development and marine conservation and protection so that the ocean can continue to provide benefits for generations to come. This is consistent with the purpose and goals of the federal Marine Spatial Plan for the Scotian Shelf and Bay of Fundy (see: First-generation Marine Spatial Plan: Scotian Shelf and Bay of Fundy).

DFO has a mandate, regulatory framework, capacity, and expertise to support site-specific spatial planning using comprehensive scientific data and evidence-based analytical approaches. Based on these, DFO recommends enhanced levels of collaboration between DFO and Natural Resources Canada (NRCan), Nova Scotia Department of Energy (NS-DoE) and the CNSOER to define and evaluate the Wind Energy Areas and future licensing areas relative to other ocean use activities, marine ecosystems, habitats, species (including species at risk), and marine conservation programs.

2. **Potential evaluation criteria for bids submitted as part of the offshore wind Call for Bids process**

Nil response.

3. **Coexistence**

DFO acknowledges the importance of sustainable economic development for Canada's coastal and ocean areas. Effective application of comprehensive and evidence-based marine planning can support development of the emerging offshore wind sector in a compatible manner with existing marine uses, including conservation and protection of the marine environment, fisheries, and maritime transportation. DFO notes that the three Wind Energy Areas within the Call for Information (Sydney Bight, French Bank, and Middle Bank) do not overlap with any sites within the Marine Conservation Network for the Scotian Shelf and Bay of Fundy bioregion.

DFO has in-house capacity and expertise to support site-specific spatial planning related to offshore wind and commercial fishing, by assessing information using appropriate fisheries management units, and using non-public privacy screened data. DFO strongly recommends continued collaboration between DFO, NRCan, NS-DoE, and the CNSOER to evaluate and address potential interactions with commercial fisheries in the designated Wind Energy Areas.

DFO recommends that the layout of vessel transit corridors, cable corridors, the spacing of offshore wind turbines, and exclusion zones should be discussed in coordination with DFO, Transport Canada, the Canadian Coast Guard, the Department of National Defence, and the CNSOER. This is a broad issue that has implications for safety, navigation, economic impacts, conservation, and survey activities.

DFO recommends continued engagement with the fishing industry at large, as well as direct engagement with Indigenous authorities and harvesters to address Indigenous fisheries in the licensing process. While DFO can provide recommendations in support of this engagement, direct discussions with affected Indigenous authorities are required.

The Crown, in right of Canada, a province, or territory, has an obligation to recognize, respect, and accommodate the fishing rights of Indigenous peoples. The Crown has a duty to consult and, where appropriate, accommodate Indigenous groups when it considers conduct that might adversely impact potential or established Aboriginal or treaty rights, including the following: medium-term to long-term Rights Reconciliation Agreements (RRAs); short-term understandings based on community-developed moderate livelihood fishing plans for one fishing season; and the most recent approach under the Community Based Access Acquisition (CBAA) initiative that offers funds for First Nations to acquire access, vessels, and gear through the 'willing buyer, willing seller' approach, as well as funding to continue negotiations on longer term collaborative management agreements. Further, Indigenous fishing access is subject to change over time to respond to evolving needs and interests of First Nations. As such, First Nations and Indigenous Organizations should be engaged directly to determine if offshore wind development may impact their ability to pursue any rights-based fishing within or in proximity of the Wind Energy Areas and their related infrastructure during construction, operation, and decommissioning.

4. **Considerations for fisheries' compensation**

DFO has been engaged by NRCan and NS-DoE to discuss considerations for a potential compensation regime. The department will continue to participate in these discussions and encourage involvement and dialogue with the parties directly affected.

5. **Proposed fees for all bid submissions and successful bidders**

NIL response.

6. **Principles listed in the Accord Acts**

Nil response.

7. **Community Benefits**

Nil response.

8. **Terms and conditions to be potentially included in the draft Submerged Land Licence**

The "*Summary of Potential Terms and Conditions for Inclusion in the Submerged Land Licence*" does not include the requirement for environmental effects monitoring. DFO recommends additional discussions between the CNSOER and regulators on environmental effects monitoring.

9. **Participant Funding Program**

Nil response.

10. **Additional feedback and comments**

DFO undertakes a broad suite of scientific surveys and data collection activities on the Scotian Shelf. These include statistically designed, standardized multi-species and single species fishery surveys, oceanographic and environmental monitoring surveys, and megafauna research and monitoring programs (e.g., sea turtles and marine mammals). Several surveys are used to generate long-term time series of important indicators of ecosystem health, which are used to inform fishery stock assessments, ecosystem and ocean status reporting, oceanographic and atmospheric modelling, species recovery planning, and monitoring of ecosystem change associated with marine conservation areas, aquaculture activities, and marine industrial development.

Results of these various surveys and data collection activities are used to uphold DFO's legislative and regulatory obligations under the *Fisheries Act, Species at Risk Act, Oceans Act,* and related policies. Given their value, early and ongoing engagement with DFO during OSW planning and development is requested to identify, avoid, or mitigate potential impacts to DFO operational business, as the Wind Energy Areas overlap with survey activities. Proactive engagement related to these sites and areas for associated offshore wind infrastructure will help ensure that DFO's scientific surveys – particularly long-term monitoring programs in these areas – can continue to operate effectively and that the integrity of the data used to support fisheries management and ecosystem-based decision-making are maintained.

Four Wind Energy Areas (WEA) in the Offshore of Nova Scotia: A Description of the Primary Marine Ecosystem Features, Significant and Protected Areas, At-risk and Depleted Species, Fish and Fisheries, Science Surveys, and Other Human Uses that May Occur In and Around the French Bank, Middle Bank, Sable Island Bank, and Sydney Bight Areas

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2025

Canadian Manuscript Report of
Fisheries and Aquatic Sciences 3312

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Canadian Manuscript Report of Fisheries and Aquatic Sciences

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Canadian Manuscript Report of
Fisheries and Aquatic Sciences 3312

2025

Four Wind Energy Areas (WEA) in the Offshore of Nova Scotia: A Description of the Primary Marine Ecosystem Features, Significant and Protected Areas, At-risk and Depleted Species, Fish and Fisheries, Science Surveys, and Other Human Uses that May Occur In and Around the French Bank, Middle Bank, Sable Island Bank, and Sydney Bight Areas

by

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ACRONYMS

AOI – Area of Interest
AZMP – Atlantic Zone Monitoring Program
CH – Critical Habitat
CFA – Crab Fishing Area
COSEWIC – Committee on the Status of Endangered Wildlife in Canada
CTD – Conductivity, Temperature, and Depth
ESS – Ecologically Significant Species
EBSA – Ecologically and Biologically Significant Areas
FB – French Bank
FSC – Food, Social, and Ceremonial
GB – Georges Bank
GOM – Gulf of Maine
GSC – Great South Channel
GSL – Gulf of St. Lawrence
HFA – Herring Fishing Area
KDE – Kernel Density Estimation
LFA – Lobster Fishing Area
MAB – Mid-Atlantic Bight
MB – Middle Bank
MFA – Mackerel Fishing Area
MHW – Marine Heat Waves
MPA – Marine Protected Area
MR – Marine Refuge
NAFO – Northwest Atlantic Fisheries Organization
NL – Newfoundland and Labrador
NEC – Northeast Channel
OECM – Other Effective Area-based Conservation Measures
OSW – Offshore Wind
SARA – *Species at Risk Act*
SDM – Species Distribution Model
SFA – Scallop Fishing Area / Shrimp Fishing Area
SIB – Sable Island Bank
SiBA – Significant Benthic Areas
SS – Scotian Shelf
SyB – Sydney Bight
WEA – Wind Energy Area
WSDB – Whale Sightings Database

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ABSTRACT

Curran, K.J., Nagel, E.J., Murphy, S.A., Huskins-Shupe, M.L., and Marotte, E.C. 2025. Four Wind Energy Areas (WEA) in the Offshore of Nova Scotia: A Description of the Primary Marine Ecosystem Features, Significant and Protected Areas, At-risk and Depleted Species, Fish and Fisheries, Science Surveys, and Other Human Uses that May Occur In and Around the French Bank, Middle Bank, Sable Island Bank, and Sydney Bight Areas. Can. Manuscr. Rep. Fish. Aquat. Sci. 3312: ix + 65 p.
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On July 29, 2025, the Government of Canada and the Province of Nova Scotia jointly designated four Wind Energy Areas (WEAs) in the offshore of Nova Scotia — French Bank, Middle Bank, Sable Island Bank, and Sydney Bight — marking the first such designation in Canada. This manuscript provides a high level description of the marine ecosystem and human uses in and around the WEAs. Briefly, the WEAs are located on the Eastern Scotian Shelf, which is a region characterized by complex oceanographic processes, diverse surficial geology, and notable ecosystem changes that include warming trends, marine heat waves, and shifts in trophic structure. The WEAs themselves exhibit minimal overlap with Ecologically and Biologically Significant Areas, Significant Benthic Areas, and existing and proposed marine conservation network sites, although many of these features and sites are found proximal to the WEAs. The WEAs support a wide range of marine species, including several at-risk and depleted diadromous, demersal, shark, sea turtle, and marine mammal species. Commercial fisheries operate in proximity to and/or within the WEAs, with fisheries that operate within the WEAs described in greater detail herein. Similarly, DFO fishery science and ecosystem surveys that are used to inform fishery stock assessment and ecosystem monitoring regularly collect data in and around the WEAs. Other known human uses that operate in proximity to and/or within the WEAs are also briefly described. The description presented in this manuscript is intended to be a means for DFO to inform regulatory decision-makers, industry, and members of the public of the primary marine ecosystem features, significant and protected areas, at-risk and depleted species, fish and fisheries, science surveys, and other human uses that may occur in and around each of the WEAs. This description does not assess the WEA sites for offshore wind suitability nor evaluate the risk of offshore wind energy development on the marine ecosystem or other human uses in each area.

RÉSUMÉ

Curran, K.J., Nagel, E.J., Murphy, S.A., Huskins-Shupe, M. L., and Marotte, E.C. 2025. Four Wind Energy Areas (WEA) in the Offshore of Nova Scotia: A Description of the Primary Marine Ecosystem Features, Significant and Protected Areas, At-risk and Depleted Species, Fish and Fisheries, Science Surveys, and Other Human Uses that May Occur In and Around the French Bank, Middle Bank, Sable Island Bank, and Sydney Bight Areas. Can. Manuscr. Rep. Fish. Aquat. Sci. 3312: ix + 65 p.
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Le 29 juillet 2025, le gouvernement du Canada et la province de la Nouvelle-Écosse ont désigné conjointement quatre zones d'énergie éolienne (ZEE) au large de la Nouvelle-Écosse – banc French, banc du Milieu, banc de l'Île de Sable et Sydney Bight – ce qui constitue la première désignation de ce type au Canada. Ce manuscrit fournit une description générale de l'écosystème marin et des activités humaines dans les ZEE et à proximité. En résumé, les ZEE sont situées dans l'est du plateau néo-écossais, une région caractérisée par des processus océanographiques complexes, une géologie de la surface diversifiée et des modifications notables de l'écosystème qui comprennent des tendances au réchauffement, des vagues de chaleur marines et des changements dans la structure trophique. Les ZEE présentent un chevauchement minimal avec des zones d'importance écologique et biologique, des zones benthiques importantes et des sites existants et proposés de réseaux de conservation marine, bien que bon nombre de ces caractéristiques et sites se trouvent à proximité des ZEE. Les ZEE abritent un large éventail d'espèces marines, dont plusieurs espèces diadromes, démersales, de requins, de tortues de mer et de mammifères marins en péril et en déclin. On pratique des pêches commerciales à proximité et/ou à l'intérieur des ZEE; ces pêches sont décrites plus en détail dans le présent document. De même, les relevés des sciences halieutiques, et de l'écosystème menés par les Sciences du MPO qui sont utilisées pour informer l'évaluation du stock de pêche, et le relevé de l'écosystème recueillir régulièrement des données dans les ZEE et à proximité. D'autres activités humaines connues qui se déroulent à proximité et/ou à l'intérieur des ZEE sont également brièvement décrites dans le présent document. La description présentée dans ce manuscrit se veut un moyen pour le MPO d'informer les décideurs réglementaires, l'industrie et les membres du public des principales caractéristiques de l'écosystème marin, des zones importantes et protégées, des espèces en péril et en déclin, des poissons et des pêches, des relevés scientifiques et d'autres activités humaines qui peuvent se produire à l'intérieur et à proximité de chacune des ZEE. La description ci-après n'évalue pas le caractère convenable des ZEE pour l'énergie éolienne en mer ni le risque que pose l'exploitation de l'énergie éolienne en mer pour l'écosystème marin ou d'autres activités humaines dans chaque zone.

INTRODUCTION

On July 29, 2025, the Government of Canada and the Province of Nova Scotia jointly designated Canada's first four Wind Energy Areas (WEAs) located in the offshore of Nova Scotia: French Bank, Middle Bank, Sable Island Bank, and Sydney Bight (Figure 1). A WEA represents an area of interest for offshore wind (OSW) development given its viable wind resource (Aegir 2023; Kilpatrick et al. 2025; Nagel et al. 2024; Nova Scotia Regional Assessment Committee 2025). The French Bank WEA is 3,125 km^2 in area, Middle Bank WEA is 2,289 km^2 in area, Sable Island Bank WEA is 5,850 km^2 in area, and Sydney Bight WEA is 1,285 km^2 in area (Government of Nova Scotia 2025). The total combined area of the four WEAs is 12,549 km^2.

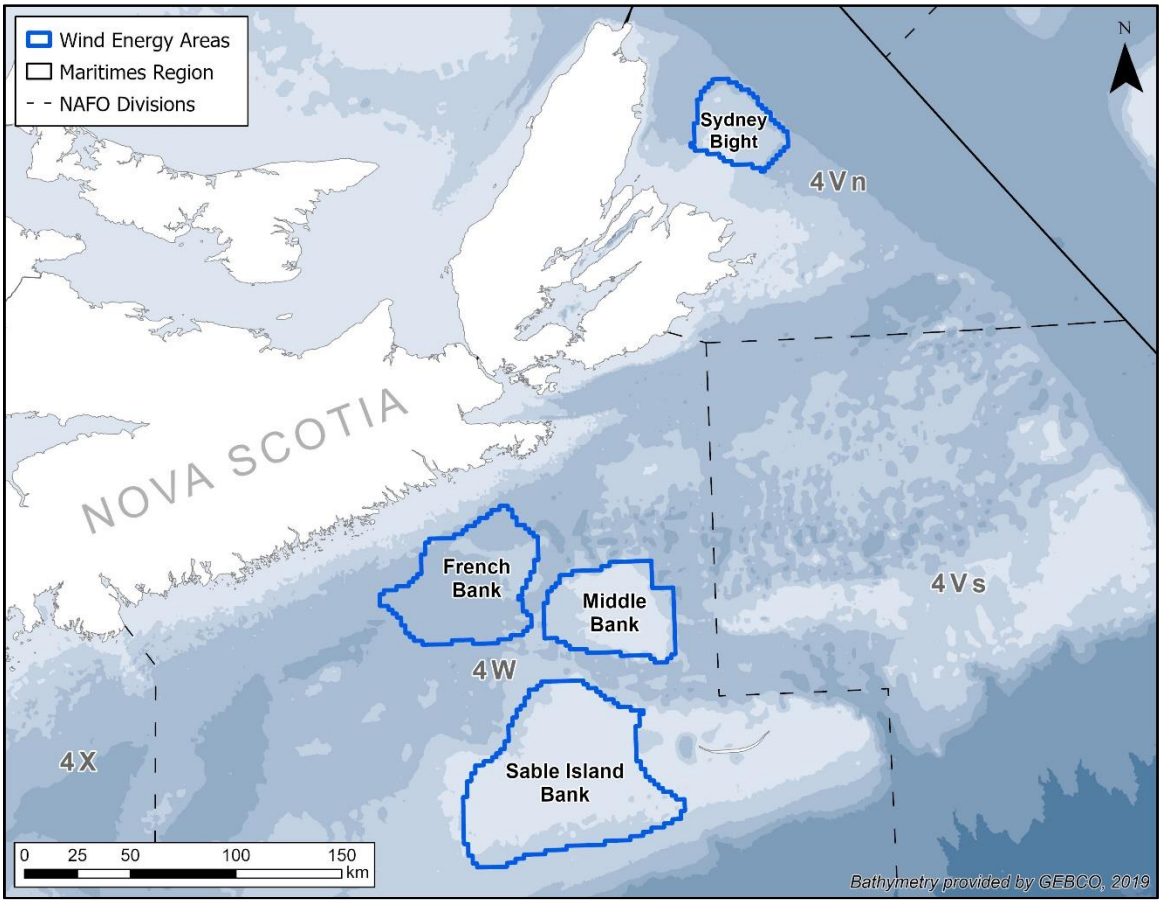


Figure 1. The French Bank, Middle Bank, Sable Island Bank, and Sydney Bight Wind Energy Areas (WEA) located in the offshore of Nova Scotia. The WEAs fall within Northwest Atlantic Fishery Organization (NAFO) Divisions 4Vn and 4W. Refer to this figure for WEA names when reviewing subsequent figures in this manuscript (subsequent figures do not include WEA names in an effort to not over-write underlying data presented in those figures). Figures in this manuscript utilize bathymetry from GEBCO (2019).

This manuscript aims to provide a high level description of the marine ecosystem and human uses in and around the four WEAs based on information held by Fisheries and Oceans Canada (DFO). The description primarily draws upon DFO's published science literature and data holdings (e.g., fishery licencing and landings information), with reference to other associated publications from the primary literature, or elsewhere, where applicable. The description does not list all DFO information and literature that is currently

available, but it does provide a starting point for understanding the marine ecosystem and human uses at the scale of the four WEAs.

The description presented herein is intended to be a means for DFO to inform regulatory decision-makers, industry, and members of the public of the primary marine ecosystem features, significant and protected areas, at-risk and depleted species, fish and fisheries, science surveys, and other human uses that may occur in and around each of the WEAs. The description does not assess the WEA sites for offshore wind suitability nor evaluate the risk of offshore wind energy development on the marine ecosystem, marine species, or human uses in each area. As such, it may inform the scope of future risk assessments, but additional detail and analyses on marine ecosystem components, species, and human uses would be needed to inform project-specific assessments.

The four WEAs fall within the Scotian Shelf-Bay of Fundy Planning Area. For more information about this planning area see: First-generation Marine Spatial Plan: Scotian Shelf and Bay of Fundy.

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OCEANOGRAPHY, SURFICIAL GEOLOGY, AND ECOSYSTEM

The Northwest Atlantic Ocean offshore of Atlantic Canada is influenced by seasonal changes in currents, sea surface water temperature, sea ice, and freshwater runoff (DFO 2022a; Bernier et al. 2023). The Newfoundland and Labrador Shelves, Gulf of St. Lawrence, and Scotian Shelf-Bay of Fundy bioregions can be envisioned as an interconnected shelf-sea marine environment. Ocean circulation on the continental shelves is characterized by a general northeast to southwest flow of water from the Labrador and Newfoundland Shelves through the Gulf of St. Lawrence, onto the Scotian Shelf, and into the Bay of Fundy/Gulf of Maine. The Newfoundland and Labrador Shelves are dominated by subpolar waters, with the cool, fresh Labrador Current flowing southward along the Newfoundland and Labrador Shelves to the south and west of the Grand Banks. The waters of the Scotian Shelf (i.e., offshore of Nova Scotia) include two modified water masses referred to as the Labrador Slope Water and the Warm Slope Water, which result from mixing of the colder, fresher subpolar waters flowing southwestward with the warmer, saltier Gulf Stream waters flowing northeastward.

On the Scotian Shelf, Bay of Fundy, and in the Gulf of Maine sub-regions, temperature and salinity conditions are determined by many processes: heat transfer between the ocean and atmosphere; flow from the Gulf of St. Lawrence supplemented by flow from the Newfoundland Shelf; exchange with offshore slope waters; localized mixing; freshwater

runoff; direct precipitation; and sea-ice meltwater (Hebert et al. 2024). The Nova Scotia Current is the dominant circulation feature on the inner Scotian Shelf, which originates in the Gulf of St. Lawrence and enters the Scotian Shelf through Cabot Strait (Figure 2). The pathway of this current is strongly affected by topography and has a general southwestward transport over the Scotian Shelf and into the Bay of Fundy/Gulf of Maine, where it contributes to counterclockwise mean circulation. Changes associated with circulation, however, are more easily detected in bottom-water temperature over the eastern and central Scotian Shelf in Northwest Atlantic Fisheries Organization (NAFO) Divisions 4Vs and 4W, respectively (see: Figure 1 for NAFO Divisions). Mixing with offshore waters from the continental slope often modifies water-mass properties on the Scotian Shelf. Shelf-water properties have large seasonal cycles, along-shelf and across-shelf gradients, and vary with depth (Petrie et al. 1996).

The circulation pattern on Sable Island Bank is influenced by its proximity to the Scotian Shelf break and Gully submarine canyon (James and Stanley 1968; Shan et al. 2014). Circulation on the bank is influenced by tides, as well as the Shelf-Edge Current, which is a branch of the Labrador Current that flows south along the edge of the continental shelf bringing cold subarctic water along the outer edge of Sable Island Bank that interacts with warmer slope waters, causing eddies and mixing (James and Stanley 1968). These interactions result in the formation of the Sable Island Bank gyre, which is a clockwise gyre that rotates around the bank and sets up a partial gyre over Western Bank (Hannah et al. 2001); such gyres in the Northern Hemisphere are associated with upwelling. The Sable Island Bank gyre is strongest in the summer and fall (Hannah et al. 2001). The eastern portion of the bank is further influenced by warm, salty water that can intrude onto the shelf via the Gully Canyon and other proximal canyons, resulting in cross-shelf exchange (Shan et al 2014). These intrusions affect temperature, salinity, and nutrient distributions on and around Sable Island Bank and northward onto the central Scotian Shelf.

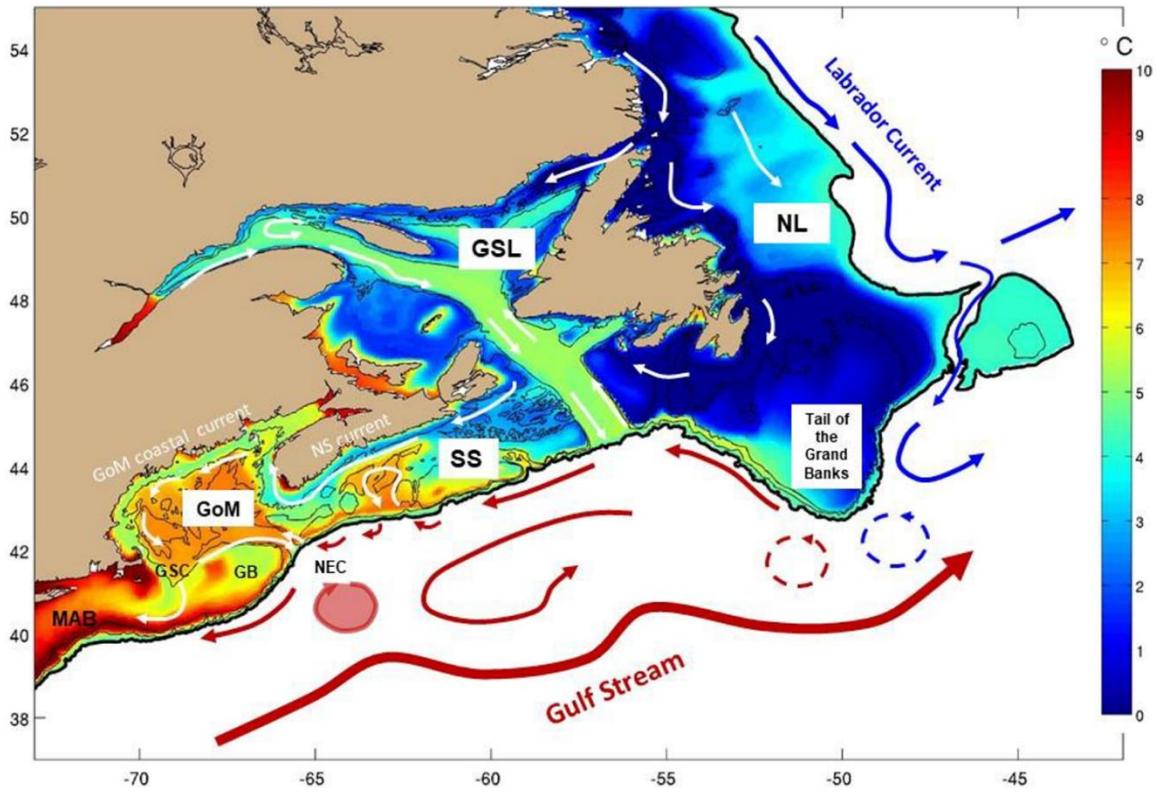


Figure 2. On the Scotian Shelf, the Nova Scotia Current is the dominant inflow, which originates in the Gulf of St. Lawrence and enters the shelf through Cabot Strait (Brickman et al. 2021). The colour coding of the continental shelf regions represents the annual average bottom water temperature, with the values represented by the colour bar on the right-hand side of the figure. The current, whose path is strongly affected by topography, has a general southwestward drift over the Scotian Shelf and into the Bay of Fundy/Gulf of Maine, where it contributes to a counterclockwise mean circulation. There are additional, more localized circulation patterns on Sable Island Bank and Sydney Bight that are described in the text herein. Place names are Gulf of Maine (GOM), Scotian Shelf (SS), Gulf of St. Lawrence (GSL), Newfoundland and Labrador (NL), Georges Bank (GB), Northeast Channel (NEC), Great South Channel (GSC), and Mid-Atlantic Bight (MAB).

Sydney Bight is placed in proximity to an area of exchange between the Gulf of St. Lawrence and the Scotian Shelf, as well as offshore of the Bras d'Or Lake. Sydney Bight influences localized current patterns that support a clockwise-rotating gyre, which is believed to be linked to outflow at Cabot Strait or morphology of the bight itself (Chassé 2001); again, such gyres in the Northern Hemisphere are associated with upwelling. Sydney Bight is prone to surface ice departing the Gulf of St. Lawrence through Cabot Strait, although in recent years the extent of ice has diminished (Galbraith et al. 2024a). In 2023, deep-water temperatures in the Cabot Strait, north of Sydney Bight, were observed to be some of the highest in the Atlantic Canada time series since 2016 (Bernier et al. 2023).

Observed local relative sea level along the coastline of Atlantic Canada is experiencing long-term changes driven by human-induced climate change. This is influenced by ocean warming, changes in ocean circulation, land-ice melt, and vertical land motion (Bernier et al. 2023). In eastern Canada, vertical land motion associated with the post-glacial isostatic adjustment of the continent differs in the meridional direction (south-north), with the continent sinking in the south (e.g., Halifax, Nova Scotia, and Saint John, New Brunswick) and rising in the north (e.g., Harrington Harbour, Québec, and Nain, Newfoundland and Labrador) (Peltier 2004; Robin et al. 2020). These combined

mechanisms give rise to significant spatial changes in mean relative sea level throughout the region. In more southern areas of Atlantic Canada, including on the Scotian Shelf, relative sea level is rising at rates ranging from 20 to 40 cm per century (e.g., rising 34.3 cm per century at Halifax, Nova Scotia, and 41.7 cm per century at North Sydney, Nova Scotia) (Hebert et al. 2024). The rate of relative sea level rise in the region has increased over the last several decades (Hebert et al. 2024).

The surficial geology of the Scotian Shelf is varied (Philibert et al. 2022). Postglacial Transgressive Sand and Gravel (PTSG) is present on banks and on the inner Scotian Shelf, in water depths less than 120 m. It has a general thickness up to 1–2 m, being much thicker on outer shelf banks of the Eastern Scotian Shelf. The PTSG observed on French Bank, Middle Bank, Sable Island Bank, and Sydney Bight is predominately composed of sand, gravelly-sand, or patchy gravel. In contrast, bottom sediments in deeper areas surrounding French Bank, Middle Bank, and Sable Island Bank are generally glacial or post-glacial in origin, of varying structure, and often contain a greater content of finer-grained sediment that includes variations of clay, silt, muddy-sands, and sub-littoral sands, some of which contain matrix-supported sand, gravel, and cobble clasts. Northwards towards shore from French Bank, the bottom transitions into coastal bedrock. Last, bottom sediments in deeper areas surrounding Sydney Bight are proglacial in origin, consisting of muddy sand or silt and little gravel that were deposited during sea level low stand (Philibert et al. 2022).

Natural bottom disturbance is a function of currents, waves, and storm events in relation to water depth and bottom sediment type; it varies by location on the Scotian Shelf (Horsman et al. 2011). French Bank is an area of moderate, low, and very low natural disturbance that decreases in disturbance with increasing water depth in the area. In contrast, Middle Bank and Sable Island Bank are areas of high natural disturbance. Sydney Bight is an area of low natural disturbance.

In terms of marine ecosystem change, in 2023 many coastal and offshore monitoring sites across the Scotian Shelf exhibited some of the highest sea surface temperatures recorded in the time series, with a series record high observed in the eastern central (i.e., NAFO Division 4W) and western (i.e., NAFO Division 4X) portions of the Scotian Shelf (Hebert et al. 2024). Overall, a greater influence of Gulf Stream water has resulted in record high water temperatures in deep basins on the Scotian Shelf. An analysis of bottom temperatures in the Western and Emerald Banks Marine Refuge (Murillo et al. 2026 [In prep]), which is partially overlapped by the Sable Island Bank WEA, showed that while bottom temperatures were highly variable across the 30-year period evaluated (1991–2020), temperatures have demonstrated a warming trend since 2005, consistent with the overall trend observed across the Scotian Shelf (Hebert et al., 2024). Near bottom temperature on the Scotian Shelf has increased about double the sea surface temperature change over the period 1993–2023 (Zhai et al., 2025). Furthermore, marine heat waves (MHWs), which are prolonged, anomalously warm ocean events, on the Scotian Shelf have become more frequent since 2020, with a particularly strong event observed in 2024 within NAFO 4Vn; a general area of the Eastern Scotian Shelf where the Sydney Bight WEA resides (Layton et al. 2025).

As atmospheric carbon dioxide levels rise due to human-induced emissions, more carbon dioxide diffuses from the atmosphere into the surface ocean. This results in a chemical process taking place that is referred to as ocean acidification, whereby decreasing pH values lead to an increased acidity of seawater. On the Scotian Shelf, pH has exhibited a general decrease from 8.25–8.20 prior to the 1940s to 8.00–7.90 in more recent times (Bernier et al. 2023). Change of this magnitude has occurred in the past, although such change occurred over geological timescales of tens of millions of years and not decades (Caldeira et al. 1999; Pearson and Palmer 2000). The modern day concern regarding

ocean acidification resides in its unprecedented rate of occurrence, due to the significant amount of carbon dioxide that has been added to the atmosphere over the past 250 years (Caldeira and Wickett 2003; Curran and Azetsu-Scott 2012). Although the reduction in pH on the Scotian Shelf is seemingly small, such decreases in pH can be impactful on marine ecosystems and associated species; particularly calcareous-based marine species. Bottom waters in the Sydney Bight area are believed to be more susceptible to ocean acidification compared to elsewhere on the Scotian Shelf. Although bottom waters of the Sydney Bight area still have sufficient aragonite saturation to support shell-forming marine life, its close proximity to the outflow of the Gulf of St. Lawrence, which has experienced the highest rate of decline in bottom water pH across Atlantic Canada since 1934 (Bernier et al. 2023), suggests a general vulnerability of this particular area to decreasing pH.

Since 2017, chlorophyll *a* inventories have remained near or below normal levels on the Scotian Shelf, with the magnitude of the spring phytoplankton bloom throughout the Atlantic Canada region mainly being lower than normal from 2012 to 2017, reaching peak levels in 2018 and 2019, and subsequently decreasing back to normal levels in 2020 (levels that are in line with the long-term average). In contrast, there has been strong evidence of important and coherent shifts in the region's zooplankton community structure since 2011 towards lower abundances of the large, energy-rich copepod *Calanus finmarchicus*, and higher abundances of smaller, less energy-rich *Pseudocalanus* species (Casault et al. 2024; Galbraith et al. 2024b), that coincide with a shift towards warmer temperatures in the region. An analysis of trends in the abundance of the copepod species *Calanus finmarchicus* and zooplankton dry biomass (which includes *Calanus finmarchicus*) from samples collected within the Western and Emerald Banks Marine Refuge, which partially overlaps the Sable Island Bank WEA, revealed a decline in both *Calanus finmarchicus* abundance and overall zooplankton biomass from 2000 to 2023. This is consistent with an overall decline observed in this important trophic level over the broader Scotian Shelf (Murillo et al. 2026 [In prep]).

Changes in productivity patterns from lower trophic levels appear to have taken place in recent years throughout the Atlantic Canada region; in particular, an overall decline in nutrients, chlorophyll *a* inventories, and zooplankton biomass that may be indicative of lower ecosystem production potential compared to previous decades (Bernier et al. 2023; Gailbraith et al. 2024b). While the consequences of these potential productivity shifts on higher trophic levels are not fully understood, changes in the distribution of *Calanus finmarchicus* has been associated with, for example, shifts in the distribution of the North Atlantic Right Whale (Brennan et al., 2021). Furthermore, changes in atmospheric forcing over the Northwest Atlantic shelf seas may be having impacts on trophic level composition and production that affect prey availability to upper trophic levels, including invertebrates, pelagic fish, whales, and seabirds (Bernier et al 2023). Refer to DFO (2022a), Bernier et al. (2023), Casault et al. (2024); Galbraith et al. (2024b), Hebert et al. (2024), and Layton et al. (2025) for a more detailed description of the marine ecosystem, ecosystem change, and associated impacts on marine species of the Scotian Shelf and throughout Atlantic Canadian waters.

ECOLOGICALLY AND BIOLOGICALLY IMPORTANT AREAS

There is a high degree of knowledge regarding Ecologically Significant Species (ESS), Ecologically and Biologically Significant Areas (EBSA), and Significant Benthic Areas (SiBA) in the Scotian Shelf-Bay of Fundy bioregion. The ESS, EBSA, and SiBA have informed the designation of existing Marine Protected Areas (MPA) pursuant to the *Oceans Act* and Marine Refuges (MR) pursuant to the *Fisheries Act*, as well as proposed areas for future marine conservation consideration.

An EBSA is an area that warrants a greater-than-usual degree of risk aversion in the management of human activities due to its particularly high ecological or biological significance (DFO 2004). Scientific criteria for EBSA identification have been defined at both the Canadian (DFO 2004) and international (CBD 2008) levels, with general overlap between the two sets of criteria (Westhead et al., 2013). The Canadian criteria for defining EBSA are: 1) Uniqueness: criterion is met if the area contains unique, rare, or distinct features; 2) Aggregation: criterion is met if significant numbers of a species are found in the area during some period of the year, significant numbers of a species use the area for a life history function, and/or structural feature or ecological process is observed in high density in the area; 3) Fitness Consequences: criterion is met if the life history activities of a species or population in the area strongly affect its fitness; 4) Resilience: criterion is met if the habitat structures or species present in the area are highly sensitive, easily perturbed, and/or slow to recover; and 5) Naturalness: criterion is met if the area is relatively pristine, with little to no evidence of human influence.

In 2014, DFO identified 38 EBSA in the Atlantic coastal region of Nova Scotia (Hastings et al. 2014). In 2016, DFO identified an additional 18 EBSA in the offshore component of the Scotian Shelf region (King et al. 2016). The EBSA located in proximity to and within the four WEAs are shown in Figure 3.

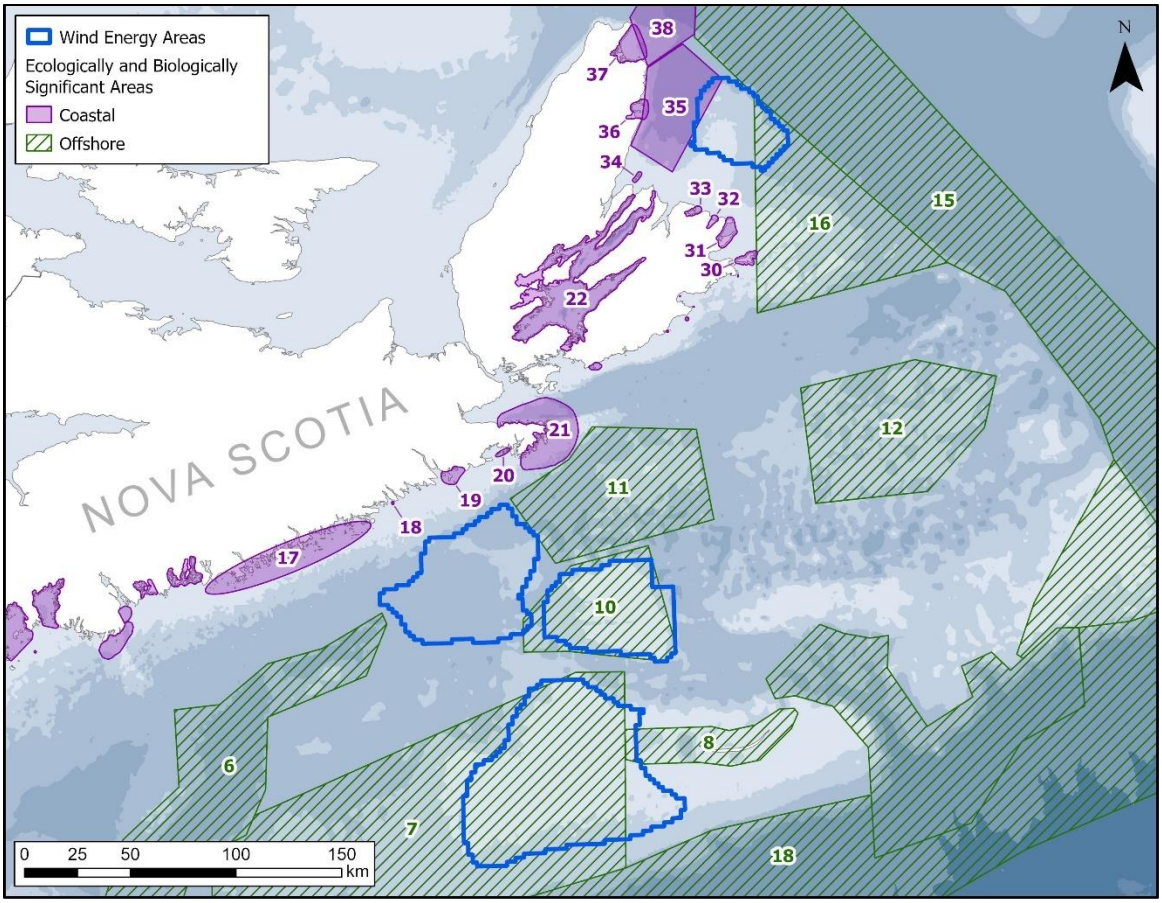


Figure 3. Coastal (purple) and offshore (green) Ecologically and Biologically Significant Areas (EBSA) that overlap or are located in proximity to the four Wind Energy Areas (WEA). The coastal sites described in Hastings et al. (2014) include: Eastern Shore Archipelago [17]; Tobacco Island [18]; Country Harbour Islands [19]; Sugar Harbour Islands [20]; The Canso Ledges [21]; Bras d'Or Lakes [22]; Scatarie Island [30]; Morien Bay [31]; Big Glace Bay [32]; Lingan Bay-Indian Bay [33]; Bird Islands [34]; Western Sydney Bight [35]; Ingonish Bays [36]; Aspy Bay [37]; and Cabot Strait (Between Cape North and St. Paul Island) [38]. The offshore sites described in King et al. (2016) include: Emerald Basin and the Scotian Gulf [6]; Emerald-Western-Sable Island Bank Complex [7]; Sable Island Shoals [8]; Middle Bank [10]; Canso Bank and Canso Basin [11]; Misaine Bank [12]; Laurentian Channel [15]; St. Anns Bank [16]; and Scotian Slope [18]. The site numbers on this figure are those listed in the respective publications. See Figure 5 in Hastings et al. (2014) and Figure 1 in King et al. (2016) for more information on the coastal and offshore EBSA sites. Refer to Figure 1 above for WEA names.

The EBSA located in proximity to the French Bank WEA include: Emerald Basin and the Scotian Gulf; Eastern Shore Archipelago; Tobacco Island; Country Harbour Islands; Sugar Harbour Islands; The Canso Ledges; Canso Bank and Canso Basin; Middle Bank; Emerald Western Sable Banks Complex; and Sable Island Shoals (Figure 3). The French Bank area, however, was not identified as an offshore EBSA, although it does have small overlap with western portions of the Middle Bank EBSA and Canso Bank and Canso Basin EBSA (King et al. 2016).

Middle Bank itself was identified as an offshore EBSA due to its importance to groundfish (e.g., Atlantic Cod, *Gadus morhua***,** spawning and nursery area), high larval fish genus richness, high invertebrate species diversity, high small fish species richness, high invertebrate biomass, and important seabird habitat (King et al. 2016) (Figure 3). However, the Middle Bank EBSA was determined not to be as well-studied as other potential EBSAs, only meeting the criteria for Aggregation and Fitness Consequences.

The Middle Bank EBSA did not meet the criteria for Uniqueness, Resilience, and Naturalness. Middle Bank is not currently identified as a proposed marine conservation network site. Other EBSA located in proximity to the Middle Bank WEA include: Emerald Basin and the Scotian Gulf; Eastern Shore Archipelago; Tobacco Island; Country Harbour Islands; Sugar Harbour Islands; Canso Ledges; Point Michaud and Basque Islands; Canso Bank and Canso Basin; Misaine Bank; Middle Bank; Emerald, Western, and Sable Banks Complex; Sable Island Shoals; and Eastern Scotian Shelf Canyons (Figure 3).

Two offshore EBSAs overlap with the Sable Island Bank WEA: the Emerald, Western and the Sable Banks Complex EBSA and Sable Island Shoals EBSA (Figure 3). Both were identified as EBSA due to the importance to groundfish (Atlantic Cod spawning and nursery area), high larval fish genus richness, high invertebrate species diversity, high small fish species richness, high invertebrate biomass, and important seabird habitat. The two EBSA areas met the criteria for Uniqueness, Aggregation, Fitness Consequences, and Resilience. They did not meet the criteria for Naturalness. Other EBSA located in proximity to the Sable Island Bank WEA include: Emerald Basin and the Scotian Gulf; Canso Bank and Canso Basin; Middle Bank; Emerald, Western, and Sable Banks Complex; Sable Island Shoals; Eastern Scotian Shelf Canyons; and Scotian Slope (Figure 3).

Two offshore EBSAs overlap with the Sydney Bight WEA: the Western Sydney Bight EBSA and St. Anns Bank EBSA (Figure 3). The Western Sydney Bight EBSA overlaps with the western portion of the Sydney Bight WEA. This EBSA includes a large expanse of waters in the western half of Sydney Bight north of the Bird Islands EBSA. Although the EBSA extends near to the coast, there is no intertidal component. Shackell and Frank (2003) indicated that a large expanse of the northeast shelf, including Western Sydney Bight EBSA and the Cabot Strait EBSA, ranked among the highest species-rich areas in the Scotian Shelf-Bay of Fundy bioregion. Horsman and Shackell (2009) further indicated that Western Sydney Bight EBSA is an important summer habitat for Atlantic Herring (*Clupea harengus*), Witch Flounder (*Glyptocephalus cynoglossus*), American Plaice (*Hippoglossoides platessoides*), Smooth Skate (*Malacoraja senta*), Thorny Skate (*Amblyraja radiata*), White Hake (*Urophycis tenuis*), and Atlantic Cod. Other species detected in the area include Capelin (*Mallotus villosus*), Northern Shortfin Squid (*Illex illecebrosus*), Snow Crab (*Chionoecetes opilio*), Leatherback Sea Turtle (*Dermochelys coriacea*), and aggregations of larval Atlantic Herring, Atlantic Mackerel (*Scomber scombrus L.*), American Plaice, Atlantic Cod, Longhorn Sculpin (*Myoxocephalus octodecemspinosus*), Acadian Redfish (*Sebastes fasciatus*) and Deepwater Redfish (*Sebastes mentella*). The Western Sydney Bight coastal EBSA is also known to support significant at-sea aggregations of several seabird functional guilds (Allard et al. 2014). The site met the criteria for Uniqueness, Aggregation, and Fitness Consequences. The site did not meet the criteria for Resilience, while the criterion Naturalness was not assessed for this EBSA.

The St. Anns Bank offshore EBSA overlaps with the eastern portion of the Sydney Bight WEA (Figure 3). This EBSA exhibits high primary productivity, high larval fish genus richness, importance to groundfish (used by three populations of Atlantic Cod, as well as Atlantic Wolffish [*Anarhichas lupus*]), high fish and invertebrate species diversity, and high small fish species richness. It also represents important foraging habitat for Leatherback Sea Turtles, is located on a migratory route (e.g., groundfish, cetaceans, Leatherback Sea Turtle), hosts sensitive benthic communities (e.g., sea pen fields [*Pennatulacea*]), and is of particular importance for seabirds (especially for plunge diving piscivores). The site met the criteria for Uniqueness, Aggregation, Fitness Consequences, and Resilience. The site did not meet the ESA criteria for Naturalness. St. Anns Bank to the south, including a portion of the St. Anns Bank EBSA, has been designated as an MPA pursuant to the

Oceans Act. The portion of the St. Anns Bank EBSA that overlaps with the Sydney Bight WEA is not currently identified as a proposed marine conservation network site.

Other EBSA located in proximity to Sydney Bight WEA include: Bras d'Or Lakes; Bird Islands; Ingonish Bays; Western Sydney Bight; Aspy Bay; Cabot Strait (between Cape North and St. Paul Island); Laurentian Channel slope; Indian Bay – Lingan Bay; Big Glace Bay; Morien Bay; Scatarie Island; Islet off of Baleine; Portnova Islands; and St. Anns Bank (Figure 3).

A SiBA is a regional habitat that contains sponges (*Porifera*), large and small gorgonian corals (*Alcyonacea*, formerly classed as *Gorgonacea*), and/or sea pens as a dominant and defining feature (DFO 2017a). On the Scotian Shelf, SiBA polygons based on kernel density estimation (KDE) were developed for sponges, large gorgonian corals, and sea pens; there was insufficient data to perform the analyses on small gorgonian corals (Kenchington et al. 2010, 2016; Beazley et al. 2017; DFO 2017a). Random forest presence-absence species distribution models (SDM) were also developed and used to identify SiBA (Kenchington et al. 2016). The SiBA polygons identified below have underlying uncertainties associated with the data and methods, so are not intended to be used as hard boundaries for management decisions; they are intended to be used to focus attention on the key areas for identifying significant concentrations of corals, sponges, and sea pens (Kenchington et al. (2016). The SiBA located in proximity to and within the four WEAs are shown in Figure 4.

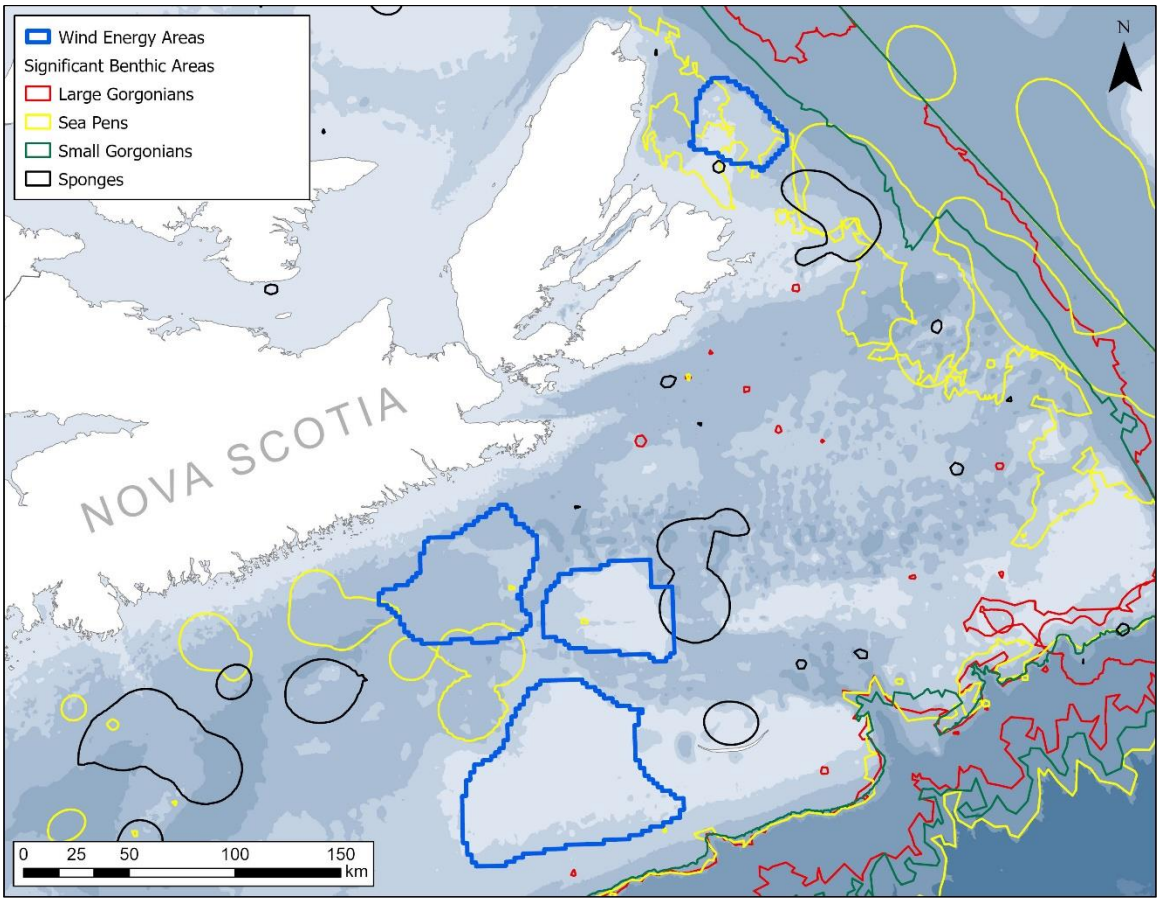


Figure 4. Locations of sponge, large gorgonian coral, and sea pen Significant Benthic Areas (SiBA) that overlap or are located in proximity to the four Wind Energy Areas (WEA). The SiBA were determined from kernel density estimation (KDE) analyses (figure adopted from DFO [2017a]). Random forest presence-absence species distribution models (SDM) were also developed. Limitations of the boundaries for management purposes are described in the text herein. Further details on SiBA can be found in Kenchington et al. (2016) and Beazley et al. (2017). Refer to Figure 1 above for WEA names.

The analyses exhibited an overlap between the French Bank WEA and presence of an aggregate of sea pens to the west and to the south of the area, with a smaller area of sea pens falling within the French Bank WEA itself to the east (Figure 4). For the Middle Bank WEA, the analyses exhibited an overlap between the WEA and a sponge SiBA to the east and a small sea pen SiBA located in the central-western portion of the WEA (Figure 4). There is also a significant aggregation of sea pens to the southwest and sponges to the southeast of the Middle Bank WEA. For the Sable Island Bank WEA, the analyses exhibited a sea pen SiBA located to the northwest of the WEA and two sponge SiBA further to the east and northeast of the WEA (Figure 4). The SDM analyses indicated a presence of sea pen, large gorgonian coral, and small gorgonian coral along the south edge of Sable Island Bank at the Scotian Shelf edge. For the Sydney Bight WEA, the SDM analyses exhibited an overlap with sea pens, with a small aggregation of sponge identified from KDE being located near the southern edge of the Sydney Bight WEA and a larger sponge and sea pens, also from identified KDE, being located southeast of the Sydney Bight WEA (Figure 4). Locations of catches used to delineate the SiBA polygon areas are detailed in Kenchington et al. (2016).

DFO's science knowledge of ESS, EBSA, and SiBA, including more recent research on the delineation of benthic habitats and associated epifaunal species assemblages (see:

Murillo et al. 2024) and other known ecological features and human uses, has informed development of a marine conservation network plan for the Scotian Shelf-Bay of Fundy bioregion. Information on identified coastal and offshore marine conservation network sites located proximal to the French Bank, Middle Bank, Sable Island Bank, and Sydney Bight WEAs are described in the following section.

MARINE CONSERVATION NETWORK PLANNING AND PROTECTED SITES

Over the past decade, DFO Maritimes Region, in collaboration with Parks Canada and the Canadian Wildlife Service, has been developing a Marine Conservation Network Plan for the Scotian Shelf-Bay of Fundy. The network plan is made up of existing MPAs and Other Effective area-based Conservation Measures (OECMs) such as MRs, current Areas of Interest (AOI) for *Oceans Act* MPA designation, and additional marine conservation areas for future implementation. Development of the network plan included extensive consultation with Rightsholders, other levels of government, marine users, stakeholders, and the Canadian public.

Proposed marine conservation network plan sites are organized into existing sites and future sites of two tiers:

1. Tier 1 future sites are a higher priority for implementation because of their ecological characteristics and/or feasibility considerations, such as interest or support from Rightsholders, other levels of government, marine users, and stakeholders. Some of these sites could be selected for advancement by 2030.
2. Tier 2 future sites are also important contributors to the conservation network plan but will not be considered for advancement by 2030. Most of these sites require more research and information on ecological features and human uses before any advancement is considered further.

Marine conservation network plan sites located in proximity to the four WEAs are shown in Figure 5. The Sable Island Bank WEA overlaps with the Western and Emerald Banks Marine Refuge (WEBMR), as well as two Tier 2 network sites: Sable Island Bank North and Sable Island Bank South. Table A1 in Appendix A provides a description of all sites shown in Figure 5, which represent the conservation network plan sites located in proximity to each of the WEAs. Supporting information on DFO's planning of the Scotian Shelf-Bay of Fundy bioregion's marine conservation network plan can be found in: DFO (2012); Gromack and Allard (2013); DFO (2018); King et al. (2013, 2016, 2021); and Serdynska et al. (2021).

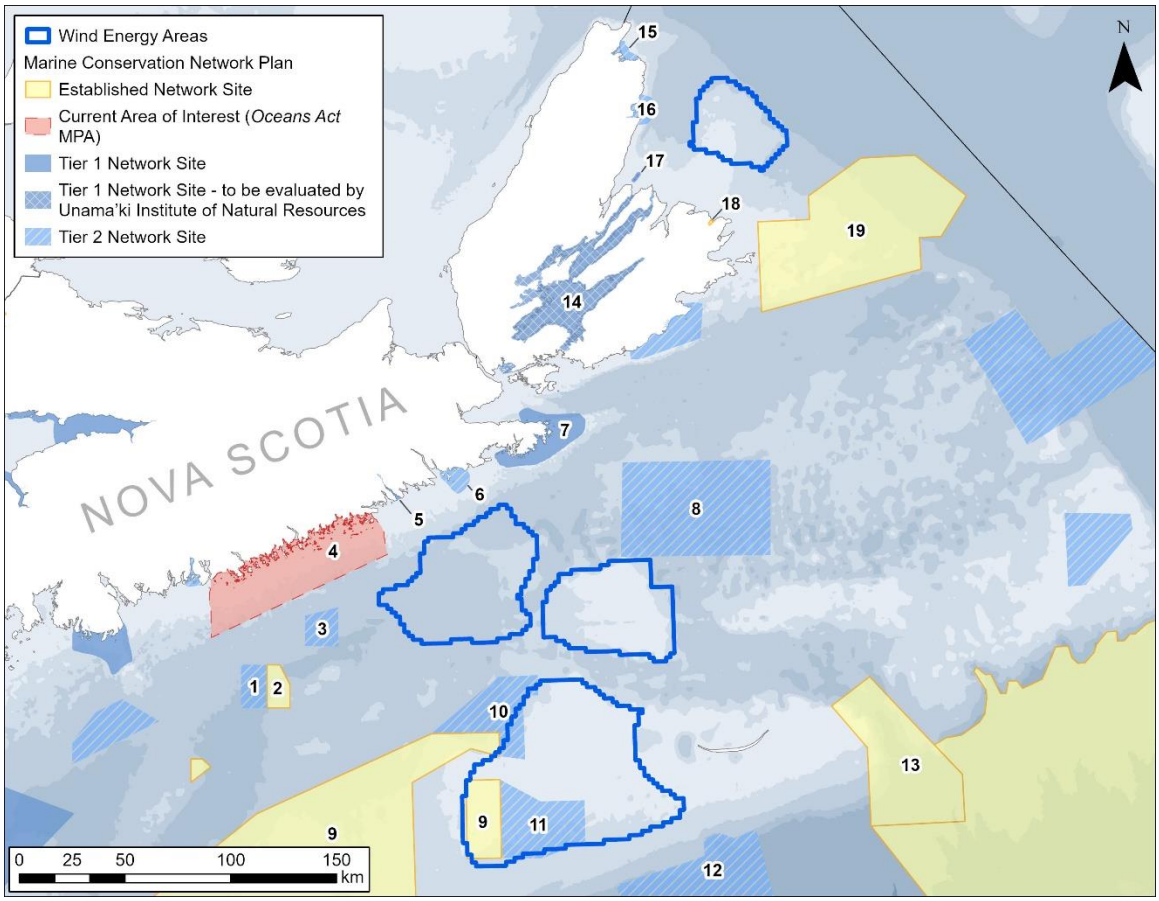


Figure 5. Existing and proposed sites in the Marine Conservation Network Plan for the Scotian Shelf-Bay of Fundy bioregion that overlap or are located in proximity to the four Wind Energy Areas (WEA). The sites are: Emerald Basin Extension Tier 2 network site [1]; Emerald Basin Marine Refuge [2]; Inner Shelf Sea Pen Field Tier 2 network site [3]; Eastern Shore Islands Area of Interest [4]; St. Mary's (Napu'saqnuk) River and Estuary Tier 1 network site [5]; Country Island Tier 2 network site [6]; Canso Ledges-Sugar Harbour Island Tier 1 network site [7]; Canso Bank and Channels Tier 2 network site [8]; Western and Emerald Banks Marine Refuge [9]; Sable Island Bank North Tier 2 network site [10]; Sable Island Bank South Tier 2 network site [11]; Logan Canyon Tier 2 network site [12]; Gully Marine Protected Area [13]; Bras d'Or Lake Tier 1 network site [14]; Aspy Bay Tier 2 network site [15]; Ingonish Bays Tier 2 network site [16]; Bird Islands Tier 1 network site [17]; Big Glace Bay Lake Migratory Bird Sanctuary [18]; St. Anns Bank Marine Protected Area [19]. More distant sites are plotted but not labeled/numbered. Refer to Table A1 in Appendix A for a detailed description of each labeled/numbered site. Refer to Figure 1 above for WEA names.

An MR is an area-based fisheries closure that meets the OECM criteria. It is established pursuant to the *Fisheries Act*. An MR offers targeted protection to species and their habitats from the impacts of fishing. Activities in MRs other than fishing are subject to a Government of Canada minimum protection standard for OECMs (DFO 2024a) and are managed in ways that achieve positive and sustained long-term conservation of biodiversity.

WEBMR is a conservation area that exhibits unique ecological importance due to its critical spawning and nursery habitat for the Scotian Shelf Haddock (*Melanogrammus aeglefinus*) stock, high habitat heterogeneity, species richness, and the presence of a large partial gyre. WEBMR contributes to the protection of habitat for depleted species such as Atlantic Cod, Ocean Pout (*Zoarces americanus*), and White Hake, as well as

contributes to Canada's national marine conservation targets (see: Table A1 in Appendix A).

AT-RISK AND DEPLETED SPECIES

There are a number of at-risk or depleted demersal fish (bottom-dwelling), pelagic fish (water column-dwelling), sharks, sea turtles, and marine mammals that reside in the Scotian Shelf-Bay of Fundy bioregion. For purposes herein, 'at-risk' species are considered those that have been assessed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) as being of 'special concern', 'threatened', or 'endangered' in Canada and/or listed pursuant to the *Species at Risk Act* (SARA). 'Depleted species' are considered those species that are currently at a very low abundance but were much more abundant at some point in the past (DFO 2007). Many, but not all, depleted species have been assessed by COSEWIC.

Many at-risk and/or depleted species exhibit a broad range throughout the western North Atlantic Ocean and/or Scotian Shelf-Bay of Fundy bioregion. While some species are year-round residents off Atlantic Canada, others are migratory in nature and primarily utilize Atlantic Canadian waters seasonally to fulfill certain life history functions. For at-risk and/or depleted species there is uncertainty in population size, as only a small fraction of the habitat used by the species is surveyed, detection probabilities are not well-established, available data are often only opportunistic in nature due to a lack of dedicated population-level study efforts, and/or there has been little focused research effort on the species or populations themselves.

This section summarizes at-risk and many of the depleted diadromous and marine species that may be found on the Eastern Scotian Shelf and occur in or utilize one or more of the WEAs throughout their life history. Additional details and relevant recovery documents and science publications for these species are presented in Table A2 in Appendix A. As OSW development advances within multiple WEAs, the cumulative impact on such species and their habitat may warrant further consideration. Installation of shoreward infrastructure (e.g., power cables, etc.) associated with OSW development should also consider the potential presence of at-risk and depleted species that utilize coastal and inshore areas.

DIADROMOUS FISH

Diadromous fish are fish species that migrate between freshwater and saltwater habitats at different stages of their life cycle. At-risk diadromous species in the Scotian Shelf-Bay of Fundy bioregion that may utilize offshore marine waters include: Atlantic Salmon (*Salmo salar*), Atlantic Sturgeon (*Acipenser oxyrinchus*), American Eel (*Anguilla rostrata*), and Striped Bass (*Morone saxatilis*) (see: Table A2 in Appendix A). These species are of significant cultural importance to Indigenous peoples; particularly for food, social, and ceremonial (FSC) purposes, and in the case of American Eel, also the Treaty right to fish in pursuit of a moderate livelihood.

Global Atlantic Salmon population declines have been observed since the 1970s, with the most significant declines occurring in the southern range of the species (which includes those populations in Atlantic Canada). Low survival of Atlantic Salmon while undertaking marine migration is considered to be a primary driver of the declines, although the underlying mechanisms remain poorly understood (Dufresne et al., 2025). Given the declines, the Bay of Fundy and the Atlantic coast of Nova Scotia Atlantic Salmon populations have been assessed as endangered by COSEWIC.

Dufresne et al. (2025) demonstrated the broad range of Atlantic Salmon migration throughout Atlantic Canada, based on tagging off Greenland, where tagged fish spent the winter months in the Labrador and Irminger seas before initiating their homing migration to natal rivers to spawn between February and mid-April. The study concluded that marine water temperatures shaped the thermal distribution of North American Atlantic Salmon and marine migration routes. Less is known, however, about the marine distribution of salmon smolts that do not migrate to Labrador, which are a larger component of most Atlantic Salmon populations in Nova Scotia (Bowlby et al. 2013).

American Eel spawn only once during their life span, with the entire population spawning together in the Sargasso Sea, located south of Bermuda. Post-spawning, eel larvae drift on North Atlantic currents for up to one year before reaching coastal waters. They then morph into glass eels when they reach the continental shelf and leave open ocean to enter rivers in early spring as pigmented elvers. When eels prepare for their spawning migration, they metamorphose into silver eels. Adult eels tolerate a wide range of temperatures and salinities and can reside in a variety of habitats including the open ocean, brackish estuaries, and freshwater rivers and lakes. The distribution of American Eel in Atlantic Canada is represented in zones that include the Scotian Shelf-Bay of Fundy, Gulf of St. Lawrence, and Newfoundland and Labrador Shelves (DFO 2025a).

The Scotian Shelf provides important habitat for Striped Bass, which may include individuals from the Bay of Fundy population and Southern Gulf of St. Lawrence population (COSEWIC 2012). In the region, Striped Bass are found in shallower, warmer waters of the inner Scotian Shelf during the summer months but are known to move to deeper waters or up the coast to cooler environments as water temperatures rise. In contrast, Atlantic Sturgeon utilize the marine environment for feeding. A study conducted by Dadswell et al. (2016) demonstrated the marine movement of Atlantic Sturgeon, which can be wide spread, with fish marked in the Minas Basin subsequently being detected from New Jersey to Gaspé Peninsula.

All four WEAs should be considered habitat that exists within the regular range of many diadromous fish species utilizing Atlantic Canadian waters, including at-risk species. Table A2 in Appendix A summarizes diadromous species that may be found on the Eastern Scotian Shelf and occur or utilize the WEAs in some way; unfortunately, habitat use and behaviour of diadromous species in the marine environment in general remains poorly understood.

DEMERSAL FISH

Demersal fish live near or in close proximity to the seafloor on the continental shelf, mostly consuming zooplankton, bottom invertebrates, or small fish (Bernier et al. 2023). Demersal fish found in Atlantic Canada include groundfish, skates, and some sharks. Demersal groundfish, which are the primary focus of this section, have both economic and ecological importance in Atlantic Canada, supporting major fisheries but also playing a critical role as secondary consumers or predators that exert top-down influences on food webs. Dogfishes and skates are opportunistic feeders, consuming a wide variety of cephalopods, crustaceans, jellyfish, and other small demersal or pelagic fish. In turn, they may be preyed upon by other demersal fish or sharks, larger pelagic sharks, and marine mammals. The status of groundfish in the region are primarily informed by data from the DFO Summer Ecosystem Research Vessel Trawl Survey (Bundy et al. 2017; DFO 2025b).

The DFO Summer Ecosystem Research Vessel Trawl Survey has a stratified random survey design that ensures sampling takes place throughout the range covered by the survey (DFO 2025b). The strata were originally selected to represent different depths and

habitats. Sampling occurs at randomly selected stations within all strata. The data are averaged within each stratum, weighted by stratum area, and then summed over all appropriate strata for each stock. While this ensures that sampling is representative of the entire area, low sampling intensity means that there is high variability, particularly for stocks that are highly aggregated or that inhabit only a small part of the entire survey area. As such, single data points in the biomass series should be interpreted with caution, as large inter-annual changes could simply reflect variability in the data rather than changes in population abundance (DFO 2025b).

On the Eastern Scotian Shelf, the total biomass index for demersal groundfish declined to very low levels in the early-1990s, largely due to overfishing (Frank et al. 2005). The index still remains low. Acadian Redfish, Haddock, and Silver Hake (*Merluccius bilinearis*) have comprised most of the biomass index since 2016. However, Haddock and Silver Hake have declined since 2017, while Acadian Redfish has been relatively stable since 2012. Biomass of Spiny Dogfish (*Squalus acanthias*) has been variable from year-to-year but generally remains at low levels. Similarly, most skates remain at very low levels: Smooth Skate, Winter Skate (*Leucoraja ocellata*), and Thorny Skate have declined significantly from historical levels. In contrast, Atlantic Halibut (*Hippoglossus hippoglossus*) has historically been considered depleted, although its biomass has increased from a depleted state in the 1990s to healthy levels today, with the rate of increase having levelled off since about 2017 (Johnson et al. 2024; DFO 2025c). Atlantic Cod has also shown some recovery over the past decade. Barndoor Skate (*Dipturus laevis*) abundance has also increased since the late-1990s, peaking in 2023. The current status of many depleted groundfish species remains a reflection of past fishing pressure.

The French Bank WEA is in close proximity to the Middle Bank EBSA that was identified due to its presence of groundfish (King et al. 2016). At-risk and/or depleted groundfish species observed in proximity to the French Bank area during the 2024 DFO Ecosystem Research Vessel Trawl Survey included American Plaice, Atlantic Wolffish, Acadian Redfish, and White Hake (DFO 2025b), although Smooth Skate and Winter Skate were also associated with the area, among other demersal groundfish species.

The Middle Bank area was identified as an offshore EBSA due to the presence of groundfish (King et al. 2016). At-risk and/or depleted groundfish species observed in proximity to the Middle Bank area during the 2024 DFO Ecosystem Research Vessel Trawl Survey included American Plaice and Atlantic Wolffish (DFO 2025b), although Smooth Skate and Winter Skate were also associated with the area, among other demersal groundfish species.

The Sable Island Bank area was also identified as an offshore EBSA due to the presence of groundfish (King et al. 2016). At-risk and/or depleted groundfish species observed in proximity to the Sable Island Bank area during the 2024 DFO Ecosystem Research Vessel Trawl Survey included American Plaice, Acadian Redfish, White Hake, and Winter Skate (DFO 2025b). In contrast, other flounders, Ocean Pout, and skates were observed on edges of the bank to the west (DFO 2025b).

The Sydney Bight WEA is in close proximity to several EBSA, some of which were identified due to their presence of groundfish (King et al. 2016). At-risk and/or depleted groundfish species observed in proximity to the Sydney Bight area during the 2024 DFO Ecosystem Research Vessel Trawl Survey included American Plaice, Atlantic Wolffish, Acadian and Deepwater Redfish, Smooth Skate, Thorny Skate, and White Hake (DFO 2025b), among other demersal groundfish species.

As noted above, there is substantial year-to-year variability in catches from the DFO Ecosystem Research Vessel Trawl Survey, largely due to the random allocation of samples within strata coupled with annual variability in the distribution of the species being

detected (DFO 2025b). This means that detections of species biological characteristics, species abundance, and species locations in the trawl survey in previous years can differ from those detected in subsequent years. The research presented in Horsman and Shackell (2009) and Bundy et al. (2017) aggregated DFO Ecosystem Research Vessel Trawl Survey results into fishing eras, in order to convey a more general understanding of demersal groundfish species distributions, persistence, and habitat uses on the Scotian Shelf through time.

All four WEAs should be considered habitat that exists within the regular range of many demersal fish species utilizing Atlantic Canadian waters, including at-risk species. Table A2 in Appendix A summarizes demersal species that have been assessed by COSEWIC and may be found on the Eastern Scotian Shelf and occur in or utilize the WEAs in some way. There may be additional depleted demersal species not assessed by COSEWIC, nor included in Table A2, that could be present within or in proximity to the WEAs.

PELAGIC FISH

Pelagic fish are those that inhabit the water column and do not predominantly live on or near the sea bottom. This group of fish are further divided into small pelagic and large pelagic species, with smaller pelagic fish (known as forage fish) feeding on plankton and other small aquatic organisms, serving as food sources to the much larger predatory species. Small pelagic species include Capelin, Herring, and Mackerel. In contrast, large pelagic fish often prey on smaller fish, cephalopods (squid and octopuses), and crustaceans. Large pelagic fish include Atlantic Swordfish (*Xiphias gladius*), Tuna species (e.g., Atlantic Albacore [*Thunnus alalunga*], Atlantic Bigeye Tuna [*Thunnus obesus*], and Atlantic Yellowfin Tuna [*Thunnus albacares*]), and Billfishes (e.g., White Marlin [*Kajikia albida*]). Though many shark species are considered to be large pelagic fish, sharks are discussed in a dedicated section below.

Mackerel is a widely distributed transboundary, small pelagic marine fish species found in both the Northeast Atlantic Ocean (Europe) and the Northwest Atlantic Ocean (North America). The Northwest Atlantic population is found in coastal waters from North Carolina to Labrador. Mackerel overwinter in deeper, warmer waters at the edge of the continental shelf and migrate inshore during the spring to spawn and then disperse to feed. Mackerel use the Scotian Shelf for overwintering and for their migration routes; particularly, around banks such as Sable Island Bank, LaHave Bank, and Emerald Bank, due to suitable water temperatures. Mackerel in Atlantic Canada currently are at low abundance. The species is presently being evaluated by COSEWIC, with stock assessments exhibiting abundance levels being at or near the Critical Zone since 2011 (DFO 2024b). In May 2025, DFO announced continuation of the Mackerel commercial fishery closure for 2025 and 2026.

All four WEAs should be considered habitat that exists within the regular range of many pelagic fish species utilizing Atlantic Canadian waters, including at-risk species. Table A2 in Appendix A summarizes SARA-listed and/or COSEWIC assessed pelagic species that may be found on the Eastern Scotian Shelf and occur in or utilize the WEAs. Mackerel is not listed in Table A2 given it has not yet been assessed by COSEWIC.

SHARKS

A diverse array of shark species occur throughout Atlantic Canadian waters, including many that have been assessed as at-risk by COSEWIC and/or listed pursuant to SARA (see: Table A2 in Appendix A). Pelagic sharks are highly migratory and exhibit broad distributions throughout and beyond Atlantic Canadian waters. Basking Shark (*Cetorhinus*

maximus), Porbeagle Shark (*Lamna nasus*), and White Shark (*Carcharodon carcharias*) populations utilize the Northwest Atlantic from the Sargasso Sea to Atlantic Canada, while the Shortfin Mako Shark (*Isurus oxyrinchus*) population is distributed throughout the entire North Atlantic, including European waters and off North Africa.

Of the at-risk species (see: Table A2 in Appendix A), only Porbeagle Shark resides year-round in Atlantic Canada (Campana et al. 2013; Campana et al. 2015); the other shark species are largely seasonal migrants (e.g., Bowlby et al. 2022a, Bowlby et al. 2022b). Historically, there was a directed Porbeagle Shark fishery on the Scotian Shelf that closed in 2013 out of conservation concern for the species (DFO 2015a). Bycatch of Shortfin Mako Sharks could be landed by numerous fisheries in Atlantic Canada until 2021 (Bowlby et al. 2022a). However, Porbeagle Shark and Shortfin Mako Shark continued to be intercepted by numerous Atlantic Canadian fisheries as bycatch. The most recent assessment for Porbeagle Shark indicates that even though abundance has been increasing since 2001, the population remains overfished (i.e., at low biomass; ICCAT 2020a). The most recent assessment for Shortfin Mako Shark indicates that the population is both overfished and that overfishing is still occurring (ICCAT 2020b). In contrast, standardized monitoring for White Shark from 2014 to 2023 demonstrates an increasing presence of the species in Atlantic Canadian waters from 2019 to 2022 (DFO 2017c; Allegue et al. 2025).

Satellite tagging and sightings data demonstrate that all at-risk pelagic sharks discussed above move throughout the Scotian Shelf-Bay of Fundy bioregion (Campana 2016; Bowlby et al. 2022a; Bowlby 2022b), although it is not possible to approximate how much time they may spend in the region relative to the rest of their range throughout Atlantic Canadian waters. Because seasonal movements have been linked to foraging behaviour, it is likely that the distribution and availability of suitable prey would be a large determinant of habitat use for pelagic sharks within the Scotian Shelf-Bay of Fundy bioregion.

All four WEAs should be considered to be foraging and/or migratory habitat within the regular range of many shark species utilizing Atlantic Canadian waters, including at-risk species. Table A2 in Appendix A summarizes SARA-listed and/or COSEWIC assessed sharks that may be found on the Eastern Scotian Shelf and occur in or utilize the WEAs.

SEA TURTLES

Four species of marine turtles are known to occur in Atlantic Canadian waters: the soft-shelled Leatherback Turtle and the hard-shelled Loggerhead Turtle (*Caretta caretta*), Green Turtle (*Chelonia mydas*), and Kemp's Ridley Turtle (*Lepidochelys kempii*) (Bernier et al., 2023). Two of these species, Leatherback Turtles and Loggerhead Turtles, have been assessed by COSEWIC and are listed as endangered pursuant to SARA (see: Table A2 in Appendix A). Sea turtles are broadly distributed throughout the offshore and coastal waters of Atlantic Canada. From 1971 to 2023, greater numbers of sea turtle sightings, primarily Leatherback Turtles and Loggerhead Turtles, have been recorded in coastal waters of mainland Nova Scotia, Sydney Bight, and Gulf of St. Lawrence, on the western Scotian Shelf, and along the Scotian Shelf break, with fewer sightings reported from the central and eastern regions of the Scotian Shelf (source: Canadian Sea Turtle Network).

Adult and sub-adult Leatherback Turtles undertake annual migrations from reproductive areas of the tropical and sub-tropical western Atlantic Ocean to northern foraging habitat, which includes coastal waters of Atlantic Canada (James et al. 2007). For Leatherback Turtles, areas of high importance have been identified from long-term biotelemetry research that will be used to inform the identification of Critical Habitat for Leatherback Turtle in Atlantic Canadian waters in an amended recovery strategy for the species. Two

primary areas of importance are: 1) the southeastern Gulf of St. Lawrence and waters off eastern Cape Breton Island, including Sydney Bight, the Cabot Strait, portions of the Magdalen Shallows, and adjacent portions of the Laurentian Channel; and 2) waters south and east of the Burin Peninsula, Newfoundland, including parts of Placentia Bay (see: Figure 2 in DFO 2020).

Leatherback Turtles primarily use Atlantic Canadian waters from late-spring through fall, with most individuals departing continental shelf waters by late-October. This is consistent with observations in James et. al. (2006), who found that Atlantic Canadian waters support one of the highest summer and fall densities of Leatherback Turtles in the North Atlantic. However, some Leatherback Turtles and Loggerhead Turtles may persist in Atlantic Canadian waters, including the Scotian Shelf break, slope, and further south, late into the year, with some newer evidence suggesting that both species can occur in Atlantic Canadian waters year-round (pers comm., Dr. M. James, DFO Maritimes Marine Sea Turtle Science Research Authority, 29 October 2025).

Leatherback Turtles are the most regularly-observed sea turtles in Atlantic Canada, in part due to their large size and regular coastal foraging behaviour (DFO 2020). In contrast, most Loggerhead Turtles, Green Turtles, and Kemp's Ridley Turtles found in Atlantic Canadian waters are juveniles or sub-adults; they are observed less frequently due to their small size, lower likelihood to be detected in fishery bycatch, and thermal tolerances that limit them to a more constricted distribution for much of the year (pers comm., Dr. M. James, DFO Maritimes Marine Sea Turtle Science Research Authority, 29 October 2025). The Loggerhead Turtle is the most common hard-shelled sea turtle observed in Atlantic Canada; it is known to interact with large pelagic longline fisheries (Brazner and McMillan 2008; DFO 2017b; James et al. 2024). In contrast, Green Turtles and Kemp's Ridley Turtles are less frequently encountered; the majority of sightings of these species represent cold-stunned, stranded turtles found along the coast in the late-fall and winter months (James et al. 2004; McAlpine et al. 2007).

The importance of the French Bank and Middle Bank WEAs to sea turtles remains unclear, although parts of the two WEAs appear to overlap with or are proximate to important habitat identified for Leatherback Turtles in Atlantic Canadian waters (James et al. 2006; DFO 2020). For the Sable Island Bank WEA, biotelemetry results have indicated that Leatherback Turtles do use this area (DFO 2020). In terms of Loggerhead Turtle, distribution patterns in Atlantic Canadian waters are inferred from large pelagic longline fishery interactions (e.g. Brazner and McMillan 2008; James et al. 2024). Sydney Bight represents an area of high use and important foraging habitat for Leatherback Turtles, which has been confirmed from sightings data and by satellite tagging (James et al. 2006; DFO 2020).

All four WEAs should be considered to be foraging and/or migratory habitat within the regular range of sea turtles utilizing Atlantic Canadian waters. Table A2 summarizes SARA-listed and/or COSEWIC assessed sea turtles that may be found on the Eastern Scotian Shelf and occur in or utilize the WEAs.

MARINE MAMMALS

Marine mammals found on the Scotian Shelf include cetaceans (whales, dolphins, and porpoises) and pinnipeds. A broad range of these species have been observed on the Eastern Scotian Shelf and occur within and in proximity to the four WEAs (e.g., MacDonald et al. 2017; Gomez et al., 2020; Delarue et al. 2022; Macklin et al. 2025). Marine mammal sightings data have been used to develop SDM that help predict seasonally-suitable habitat for marine mammal species that utilize Atlantic Canadian

waters off Nova Scotia, Newfoundland, and Labrador (e.g., Roberts et al. 2016; Gomez et al. 2020; Feyrer et al. 2023; Roberts et al. 2023).

Marine mammals are important marine predators. They are consumers of a range of trophic levels, from zooplankton to fish. Unfortunately, many marine mammals found on the Scotian Shelf are at-risk: Blue Whale (*Balaenoptera musculus*), Fin Whale (*Balaenoptera physalus*), North Atlantic Right Whale (*Eubalaena glacialis*), Killer Whale (*Orcinus orca*), Northern Bottlenose Whale (*Hyperoodon ampullatus*), Sei Whale (*Balaenoptera borealis*), Sowerby's Beaked Whale (*Mesoplodon bidens*), and Harbour Porpoise (*Phocoena phocoena*) (see: Table A2 in Appendix A). At-risk marine mammals found throughout Atlantic Canada owe this status, in varying degrees, to their often large migratory ranges through heavily-used ocean spaces (e.g., migrations along the east coast of North America), fishery interactions (e.g., incidental or bycatch), vessel interactions (e.g., vessel strikes), habitat that is subject to habitat degradation (e.g., ocean noise, contaminants, marine litter, and/or ghost gear), and/or subject to changing marine ecosystems (e.g., climate induced). Historical whaling is also responsible for the depletion of some marine mammal species and/or populations. The magnitude of each of the threats faced by marine mammals differs by species and population (see: Table A2 in Appendix A).

While not considered species at risk, there are two species of pinnipeds that are resident on the Scotian Shelf: Grey Seal and Harbour Seal. DFO has recently completed a haul-out survey to estimate Harbour Seal abundance and describe the summer distribution of both species (Lidgard et al. 2023). DFO has also been monitoring Grey Seal pup production on Sable Island since the 1960s. The Sable Island Grey Seal breeding colony currently accounts for 78% of pup production in Canada (DFO 2022b). Grey seals forage on the shallow banks around Sable year-round but are also observed foraging throughout the region, including movement through Sydney Bight and into the Gulf of St. Lawrence (Breed et al. 2013, Nowak et al. 2020). Nowak et al. (2020) provides a good overview of Grey Seal foraging behavior on the Scotian Shelf.

Numerous gaps in knowledge for many marine mammals in the Scotian Shelf-Bay of Fundy bioregion remain despite decades of research (Bernier et al. 2023). Abundance data are not available for many marine mammal populations that regularly occur in the Northwest Atlantic Ocean and the majority of the species have unknown trends in their population sizes (Bernier et al., 2023). There are also considerable knowledge gaps related to the distribution and habitat use of many species, with climate change impacting marine mammals either directly through changes in the abiotic characteristics of habitat or indirectly through changes in the abundance and/or distribution of prey. Unfortunately, datasets for marine mammals are hosted across separate government and non-government databases, influencing research on abundance and distribution trends.

The North Atlantic Right Whale is a critically endangered marine mammal that utilizes Atlantic Canadian waters. In Atlantic Canada, North Atlantic Right Whale sightings have been reported year-round, with the exception of March, although North Atlantic Right Whale upcalls are detected through acoustic monitoring efforts in all months, though infrequently from December through March. Various data sources that include North Atlantic Right Whale sightings, acoustic detections, persistence of predicted foraging habitat based on prey modeling, and a probability of occurrence model, have been used to identify important habitats for the species in Atlantic Canadian waters, as well as to describe their functions, features, and attributes (Ratelle et al. 2025).

Important habitat for North Atlantic Right Whale for feeding, reproduction, rearing, socializing, and socialization is comprised of the southern and northwestern Gulf of St. Lawrence, including the Jacques-Cartier Strait and entrance to Baie des Chaleurs, the

Scotian Shelf, especially Emerald and Roseway Basins, the Bay of Fundy, and the Canadian portions of Georges Bank and the Gulf of Maine. The important habitat also includes corridors for migratory movements and habitat connectivity; namely, the Laurentian Channel, Cabot Strait, and the eastern portion of the Scotian Shelf (Ratelle et al. 2025). In addition, potential foraging areas have been identified in coastal waters of the Eastern Scotian Shelf and around Newfoundland, at the southern and eastern edges of the Grand Banks, the Flemish Cap, and in the northeast portion of the Jacques Cartier Strait.

Information on cetaceans is available from the DFO Maritimes Region Whale Sightings Database (WSDB). Updated WSDB data are available from DFO upon request. In addition to WSDB, DFO has also been operating Whale Insight since 2022; a publicly available visualization tool that provides near real-time information on reported sightings and acoustic detections of North Atlantic Right Whales in Atlantic Canadian waters. Detections from trusted sources, such as academic experts and non-government organizations, as well as validated opportunistic sightings, are included on the Whale Insight platform. Detections contribute to the Government of Canada's effort to monitor and protect this critically endangered species.

The importance of the four WEA areas to marine mammals is generally unknown, although all WEAs overlap with or are proximate to important habitat or Critical Habitat identified for many at-risk marine mammal species. All four WEAs should be considered foraging and/or migratory habitat within the regular range of many marine mammals utilizing Atlantic Canadian waters. Table A2 in Appendix A summarizes SARA-listed and/or COSEWIC assessed marine mammals that may be found on the Eastern Scotian Shelf and occur in or utilize the WEAs.

FISH AND FISHERIES

FISH

Fish are broadly defined under the *Fisheries Act* to include; shellfish, crustaceans, marine animals and any parts of shellfish, crustaceans, or marine animals; and the eggs, sperm, spawn, larvae, spat and juvenile stages of fish, shellfish, crustaceans and marine animals. The definition is inclusive of species such as clams, crabs, corals, sponges, sea worms, sea stars, and krill, among the many, many other benthic, demersal, pelagic, and marine mammal species described in this manuscript. Many fish species have already been described in overlying sections of this manuscript, so are not reiterated in detail here (although they should still be considered fish species).

The Eastern Scotian Shelf is home to a broad range of benthic (species that live on or in the seabed), demersal (species that primarily reside near the sea bed), and pelagic (species that reside primarily within the water column above the seabed) fish species that are in addition to the at-risk and/or depleted species described above. Over the past several decades, DFO fish science surveys have recorded more than 800 different marine species throughout the Scotian Shelf-Bay of Fundy bioregion. Between 2015 and 2025, 135 different benthic, demersal, and pelagic marine species were recorded in the French Bank WEA, 163 in the Middle Bank WEA, 137 in the Sable Island Bank WEA, and 164 in the Sydney Bight WEA. The numbers are based on records from the DFO Ecosystem Research Vessel Trawl Survey, DFO-Industry Collaborative Fishery Science Surveys (e.g., Halibut, Snow Crab, Lobster, and Shrimp), past DFO Fishery Science Surveys (e.g., Sentinel Surveys), and/or records from the At-sea Fishery Observers Program. The actual number of species that utilize the seabed and water column within the four WEAs are likely under-represented from the available data sources.

Since the collapse of many demersal fish stocks in the late-1980s and early-1990s, commercial fisheries for crustacean species have become the most valuable of all fisheries in Atlantic Canadian waters (Bernier et al. 2023). However, commercial fishing pressure, warming waters, and ocean acidification have become important drivers of change for some species of large marine invertebrates on the Scotian Shelf, impacting physiology, recruitment dynamics, population distributions, and predator-prey interactions. For instance, American Lobster (*Homarus americanus*) (e.g., Colburn et al. 2016; Flaherty et al. 2025) and Halibut (e.g., Czich et al. 2023) have increased in abundance with warming waters, while species such as Northern Shrimp (*Pandalus borealis*) and Snow Crab have seen declines on the Eastern Scotian Shelf due to a reduction in suitable bottom habitat for these cold-water species. Sand Lance (*Ammodytes dubius*), which is an important forage fish, has also increased in abundance on the Eastern Scotian Shelf since the 1990s (Ricard et al. 2022).

In terms of small pelagic species, total commercial landings from 2016 to 2021 have been low compared to historical landings of the late-1980s and early-1990s, although landings have remained relatively stable since 2010. On the Eastern Scotian Shelf, landings of Herring currently remain at historically low levels in NAFO Division 4V but have been relatively stable since 2018 in NAFO Division 4W. In contrast, Mackerel landings on both the Western and Eastern Scotian Shelves remain at very low levels (approximately 1,000 tonnes or less since 2010). However, it should be noted that species population dynamics are complex and are not to be inferred or interpreted from fishery landings alone. Similarly, these species are managed under a Total Allowable Catch, which would restrict the amount that could be landed in any given year.

In terms of large pelagic species, Porbeagle and Shortfin Mako sharks have seen declines in stock size to low biomass levels, while others large pelagic species such as Atlantic Bluefin Tuna (*Thunnus thynnus*), Swordfish, Yellowfin Tuna, Bigeye Tuna, and Albacore Tuna are currently considered healthy, despite some declines for specific species (ICCAT 2020c, 2025). Bluefin Tuna is a highly migratory, large pelagic marine fish species found across the Atlantic Ocean, Mediterranean, and Black Seas. As such, they are managed internationally. In the Atlantic Ocean, the International Commission for the Conservation of Atlantic Tunas (ICCAT) is the regional fishery management organization responsible for all tuna and tuna-like species. Under this type of management, all countries who participate in the fishery are brought together to ensure consistent management measures are adopted. In 2011, COSEWIC assessed Bluefin Tuna as endangered; however, the Government of Canada has made a determination not to list the species pursuant to SARA based on a series of western Atlantic Bluefin Tuna stock assessments that demonstrated continued stock growth since about 2004. In 2018, ICCAT completed a 20-year rebuilding program for Bluefin Tuna, and in 2022, ICCAT adopted a Management Strategy Evaluation (MSE) for the species. Tagging studies demonstrate the extensive use of the Scotian Shelf by Bluefin Tuna (Walli et al. 2009).

There are many marine mammals that utilize the Eastern Scotian Shelf that have not been assessed by COSEWIC, including: Minke (*Balaenoptera acutorostrata acutorostrata*), Humpback (*Megaptera novaeangliae*), Cuvier's Beaked whales (*Ziphius cavirostris*), True's Beaked (*Mesoplodon mirus*), Sperm (*Physeter macrocephalus*), Long-finned Pilot (*Globicephala melas*) and Killer Whales; Atlantic White-sided (*Lagenorhynchus acutus*) and Short Beaked Common (*Delphinus delphis*) dolphins; and Grey Seal (*Halichoerus grypus*).

Fish stocks are often defined by a management area and can include a single population, a smaller subset of a single population, or more than one population. In the DFO Maritimes Region, which aligns with the Scotian Shelf-Bay of Fundy bioregion, there are more than 150 fish stocks, with some of the fish species described above constituting the

43 stocks reported upon annually in the regional sustainability survey for fisheries (the 43 stocks is based on the 2023 DFO Sustainability Survey). Many of these fish stocks are the basis of important and highly-valuable fisheries throughout the region.

FISHERIES

Indigenous Fisheries

The Canadian Constitution recognizes, and the Supreme Court of Canada clarified through the 1990 *Sparrow* decision, that Indigenous people have the right to fish for food, social and ceremonial (FSC) purposes. This Aboriginal right takes priority over all other uses of the fishery resource after conservation objectives are met. To authorize and support the exercise of this right within an integrated fisheries management and regulatory framework, DFO issues FSC licences to Indigenous communities; however, FSC licences do not define an Aboriginal right to fish or its scope. FSC fishing licences include conditions that are intended to reflect the outcomes of collaborative consultations and understandings between DFO and Indigenous communities. FSC licences specify the species and various conditions in place to manage the fishery (e.g., geographic area, level of effort, conservation measures) under which Indigenous communities can exercise their rights.

The *Marshall* decision affirmed that 35 Indigenous communities in the Atlantic and Gaspé regions of Canada have a treaty right to fish, hunt, and gather in pursuit of a moderate livelihood. This applies to Mi'kmaq First Nations, Wolastoqey First Nations, and the Peskotomuhkati Nation at Skutik on the East Coast of Canada, who are recognized as modern day beneficiaries of the Peace and Friendship Treaties of 1760–1761. The approaches for implementing treaty rights have been adaptive over time and depend on First Nation preferences.

The Crown has a duty to consult and, where appropriate, accommodate Indigenous groups when it considers conduct that might adversely impact potential or established Aboriginal or treaty rights.

Commercial Fisheries

Datasets that summarize commercial fishery activities are made available by DFO for public use following quality control and privacy assessments. If privacy thresholds are not met, catch weight locations are withheld from statistical areas to protect the identity or activity of individual vessels or companies. In terms of the fishery landings analysis reported herein, the percentage overlap between fishery landings and WEAs were calculated using the most recent total aggregated landings data available to the Department for the period 2012–2023 (reported in the following text and in Table A3 in Appendix A). The fishery landings data used herein do not consider discards, so they cannot be used to inform a level of interaction between fisheries and non-target species in WEAs. Further, the estimates presented herein are to be considered as a preliminary assessment that identifies fisheries that may have higher landings within a WEA. The estimates are a generalization and do not infer the social or economic significance of the fisheries or ecological role they may play.

Commercial fisheries that operate in and around each WEA were evaluated to determine what portion of aggregated total reported landings (2012–2023) from the licenced fishery management unit were reported as landed from within a WEA. Fisheries that had aggregated total landings equal to or greater than 1% reported as coming from within a WEA are included in Table A3 in Appendix A. It is acknowledged that limiting the analysis to the recent decade of aggregated total reported landings (i.e., 2012–2023) may not fully

capture the historical importance of a particular WEA to a fishery, given that fish stocks and fishery distributions can change through time. Similarly, although some fisheries that operate in and around a WEA may not be considered in detail herein, a WEA may still be important to individual harvesters for their total individual landings or in conducting their fishery operations (e.g., vessel maneuverability, gear drift, etc.).

For fisheries such as the pelagic longline fishery that use gear with a large spatial footprint, overlap with WEAs may be better represented by vessel monitoring system (VMS) data versus a single landings location recorded in logbooks (Butler et al. 2019); similarly, bottom Halibut longline landings may require further consideration of how the fishery reports its landings in logbooks (Bowlby et al. 2024). Additional analysis would be required to assess overlap from pelagic and bottom longline fisheries operating within or in proximity to each WEA. Last, OSW development within WEAs may affect fishing vessel transit to fishing grounds further afield, while any shoreward infrastructure (e.g., cables) should also consider any important nearshore fishing grounds. The fishing sector may have additional information on fishing activities beyond those that are summarized in this manuscript.

French Bank

The bank edge and adjacent deeper water areas of the French Bank WEA are important to some benthic and groundfish fisheries. Fisheries that operate in and around the French Bank WEA that had less than 1% of total aggregated fishery landings (2012–2023) being reported as landed from within the French Bank WEA include: Mackerel Fishing Area [MFA] 19-20 Mackerel Fixed Gear (currently under moratorium); NAFO Divisions 4VW Flounder; NAFO Divisions 4VWX5Z Bluefin Tuna; NAFO Divisions 4VWX5Z Groundfish Bottom Longline; NAFO Divisions 4VWX5Z Groundfish Trawl; NAFO Divisions 4VWX5Z Pelagic Longline; Scallop Fishing Area [SFA] Scallop; and Shrimp Fishing Area [SFA] 13-15 Mobile Northern Shrimp. Overlap with Herring Fishing Area [HFA] 19-20 Bait and MFA 19-20 Mackerel Bait (currently under moratorium) could not be verified with existing landings data.

Fisheries that operate in and around the French Bank WEA that had equal to or greater than 1% of total aggregated fishery landings (2012–2023) reported as landed from within the French Bank WEA include: Crab Fishing Area 24 (East) Snow Crab; NAFO Divisions 4W (Midshore) Hagfish; NAFO Divisions 4VsW Atlantic Halibut; and possibly Lobster Fishing Area [LFA] 31B and 32 American Lobster (Figure 6; Table A3).

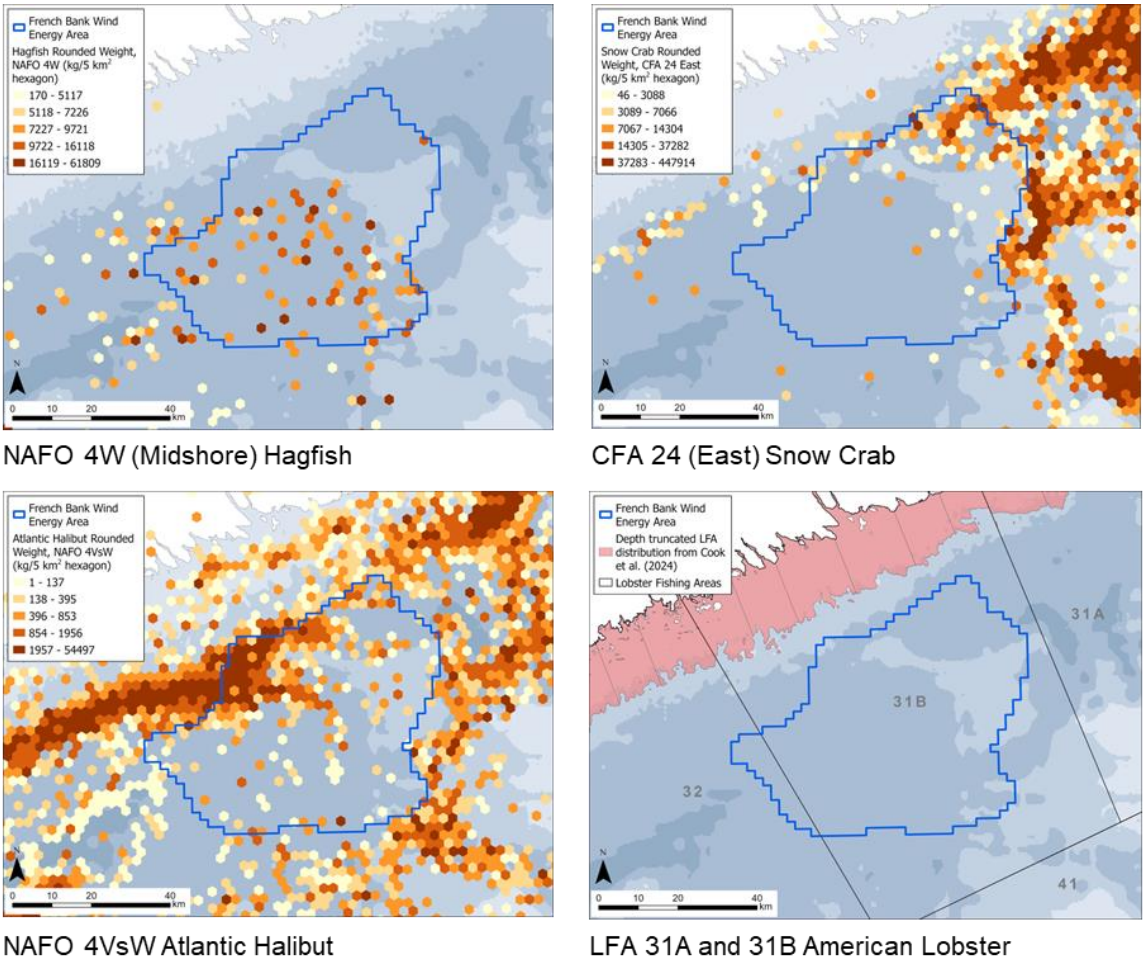


Figure 6. Aggregated total fishery landings (2012–2023) by licenced fishery management unit for fisheries that had a proportion of total landings equal to or greater than 1% reported as being landed from within the French Bank WEA. Overlap between the French Bank WEA and LFA 31B and LFA 32 is shown, which includes depth-truncated LFA landings distributions from Cook et al. (2024); see main text for description. See Table A3 in Appendix A for more information on these fisheries. Refer to Figure 1 above for WEA names. NAFO = Northwest Atlantic Fishery Organization; CFA = Crab Fishing Area; LFA = Lobster Fishing Area.

Lobster Fishing Areas 31B and 32 American Lobster are included herein given the species importance regionally to coastal communities. The inshore Lobster fishery reports landings by statistical grid. For LFA 31B and LFA 32, the statistical grids overlap with the French Bank WEA. Analyses conducted by Cook et al. (2024) identified 'truncated' areas per statistical grid that either represented areas with 99% or more of reported landings in the statistical grid or the furthest area offshore that Lobster landings were reported in the statistical grid. When the analyses of Cook et al. (2024) are considered, there is no longer overlap between the majority of Lobster landings reported in LFAs 31B and 32 and the French Bank WEA.

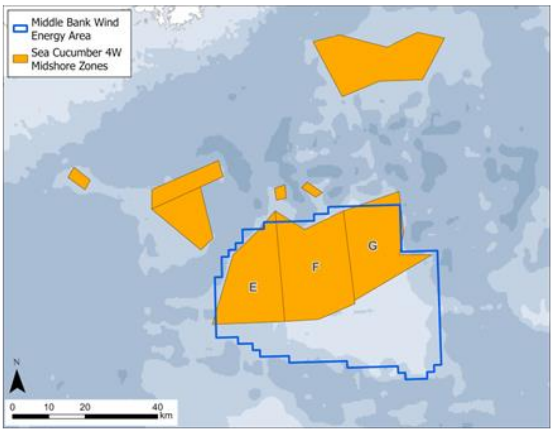
Middle Bank

The bank edge and adjacent deeper water areas of the Middle Bank WEA are important to some benthic and groundfish fisheries. Fisheries that operate in and around the Middle Bank WEA that had less than 1% of total aggregated fishery landings (2012–2023) being reported as landed from within the Middle Bank WEA include: NAFO Divisions 4VWX5Z Bluefin Tuna; NAFO Divisions 4VWX5Z Groundfish Bottom Longline; and NAFO Divisions 4VWX5Z Pelagic Longline. The Middle Bank WEA also overlaps with a moderate portion

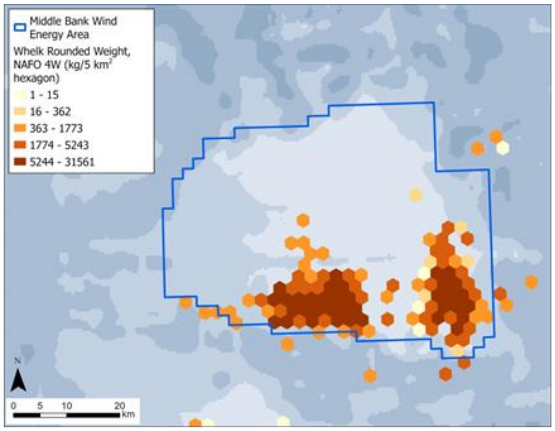
of LFA 31A and a small portion of LFA 31B and LFA 41, although the Middle Bank WEA does not overlap with areas currently utilized by harvesters of inshore or offshore Lobster for landings purposes (Cook et al. 2024) nor contains any reported landings of Lobster from LFA 41, so is not discussed in further detail herein.

Fisheries that operate in and around the Middle Bank WEA that had equal to or greater than 1% of total aggregated fishery landings (2012–2023) reported as landed from within the Middle Bank WEA include: NAFO Division 4W (Midshore) Sea Cucumber (*Cucumaria frondosa*); NAFO Division 4W (Exploratory) Whelk (*Buccinum undatum*); SFA 25 Sea Scallop; CFA 24 (East) Snow Crab; and SFA 13–15 (Mobile) Northern Shrimp (Figure 7; Table A3).

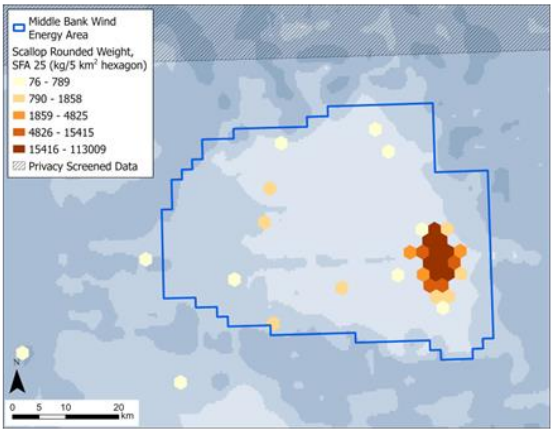
NAFO Division 4W (Midshore) Sea Cucumber fishery, in particular, exhibited a very high overlap in landings with the Middle Bank WEA, although for privacy reasons the precise details cannot be reported in Figure 7 or Table A3. The NAFO Division 4W (Exploratory) Whelk fishery is considered to be exploratory fishery, not a commercial fishery, but is included herein due to its overlap with the Middle Bank WEA. Exploratory Whelk percentages are based on 2019–2023 aggregated landings data.



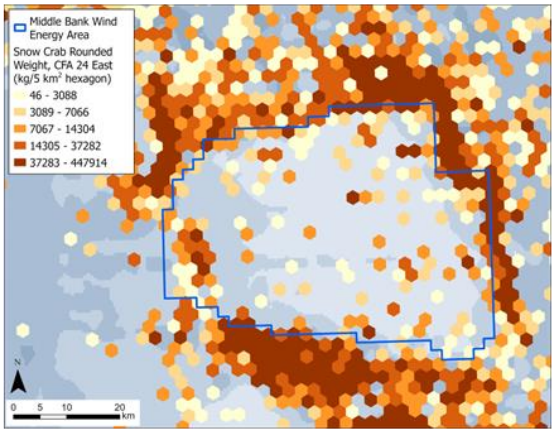
NAFO 4W (Midshore) Sea Cucumber



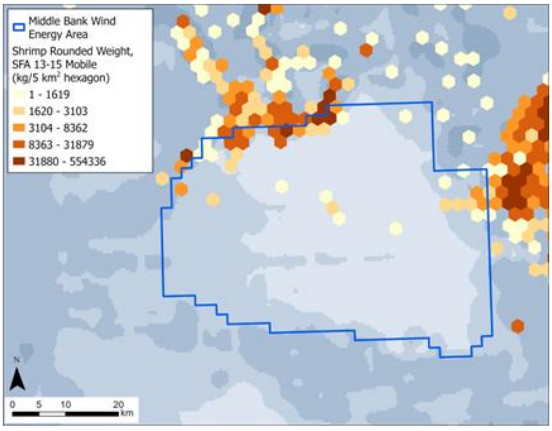
NAFO 4W (Exploratory) Whelk



SFA 25 Sea Scallop



CFA 24 (East) Snow Crab

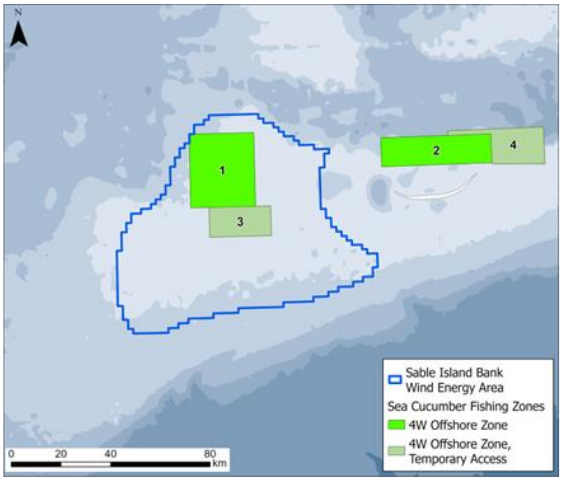


SFA 13-15 (Mobile) Northern Shrimp

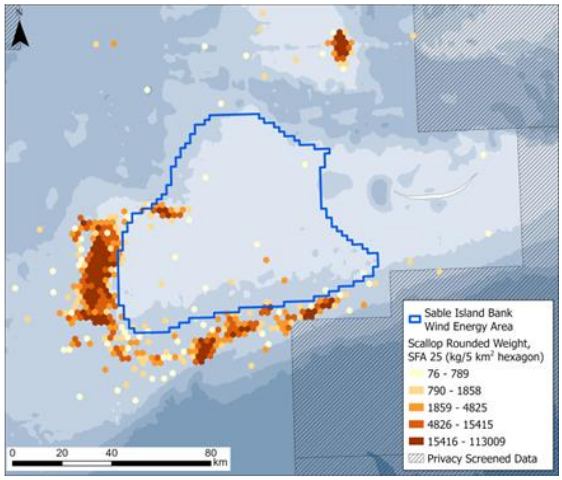
Figure 7. Aggregated total fishery landings (2012–2023) by licenced fishery management unit for fisheries that had a proportion of total landings equal to or greater than 1% reported as being landed from within the Middle Bank WEA. Due to privacy reasons associated with limited licencing numbers, only fishing zones are shown for Sea Cucumber. For Sea Cucumber, the Middle Bank WEA overlaps with fishing NAFO Division 4W (Midshore). For exploratory Whelk total aggregated landings data depicted are from 2019–2023 (Rozalska and Coffen-Smout 2025). See Table A3 in Appendix A for more information on these fisheries. Refer to Figure 1 above for WEA names. CFA = Crab Fishing Area; NAFO = Northwest Atlantic Fishery Organization; SFA = Scallop Fishing Area; SFA = Shrimp Fishing Area.

Sable Island Bank

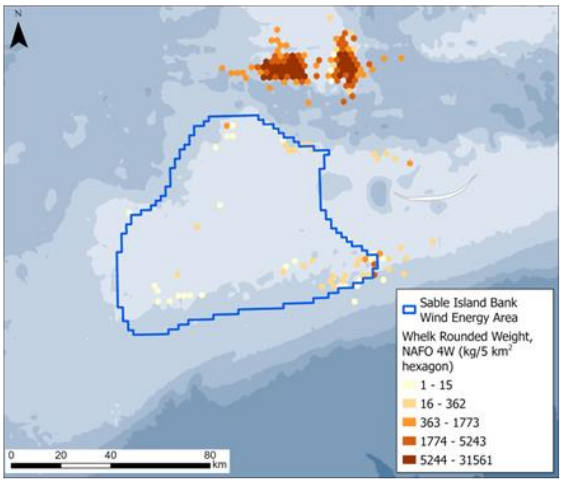
The bank edge and adjacent deeper water areas of the Sable Island Bank WEA are important to some benthic and groundfish fisheries. Fisheries that operate in and around the Sable Island Bank WEA that had less than 1% of total aggregated fishery landings (2012–2023) being reported as landed from within the Sable Island Bank WEA include: CFA (East) Snow Crab; NAFO Division 4W Hagfish; HFA 19-20E Herring Mobile Gear; NAFO Divisions 4VWX5Z Bluefin Tuna; NAFO Divisions 4VWX5Z Groundfish Bottom Longline; NAFO Divisions 4VW Flounder; NAFO Divisions 4VWX5Z Pelagic Longline; and Sable Island Bank Offshore Clam.



NAFO 4W (Offshore) Sea Cucumber



SFA 25 Sea Scallop



NAFO 4W (Exploratory) Whelk

Figure 8. Aggregated total fishery landings (2012–2023) by licenced fishery management unit for fisheries that had a proportion of total landings equal to or greater than 1% reported as being landed from within the Sable Island Bank WEA. Due to privacy reasons associated with limited licencing numbers, only fishing zones are shown for Sea Cucumber. For Sea Cucumber, the Sable Island Bank WEA overlaps with fishing NAFO Division 4W (Offshore). See Table A3 in Appendix A for more information on these fisheries. Refer to Figure 1 above for WEA names. NAFO = Northwest Atlantic Fishery Organization; SFA = Scallop Fishing Area.

Fisheries that operate in and around the Sable Island Bank WEA that had equal to or greater than 1% of total aggregated fishery landings (2012–2023) reported as landed from within the Sable Island Bank WEA include: NAFO Division 4W (Offshore) Sea Cucumber; NAFO Division 4W (Exploratory) Whelk; and SFA 25 Sea Scallop. The NAFO Division 4W

(Offshore) Sea Cucumber fishery, in particular, exhibited a high overlap in landings with the Sable Island Bank WEA, although for privacy reasons the precise details cannot be reported in Figure 8 or Table A3. Again, NAFO Division 4W (Exploratory) Whelk fishery is considered to be exploratory fishery, not a commercial fishery, but is included herein due to its overlap with the Sable Island Bank WEA. Exploratory Whelk percentages are based on 2019–2023 aggregated landings data.

Sydney Bight

The bank edge and adjacent deeper water areas of the Sydney Bight WEA are important to some benthic and groundfish fisheries. Fisheries that operate in and around the Sydney Bight WEA that had less than 1% of total aggregated fishery landings (2012–2023) being reported as landed from within the Sydney Bight WEA include: NAFO Divisions 4VW Flounder; NAFO Divisions Greenland Halibut (*Reinhardtius hippoglossoides*); NAFO 4VWX5Z Groundfish Bottom Longline; and Unit 2 Redfish (*Sebastes fasciatus*). Overlap with HFA 17–18 Herring Bait; HFA 17–18 Herring Mobile Gear; MFA 17–18 Mackerel Bait (currently under moratorium); MFA 17–18 Mackerel Mobile Gear (currently under moratorium) could not be verified with existing landings data.

Fisheries that operate in and around the Sydney Bight WEA that had equal to or greater than 1% of total aggregated fishery landings (2012–2023) reported as landed from within the Sydney Bight WEA include: CFA 20–22 Snow Crab; NAFO Subdivision 4Vn Atlantic Halibut Longline/Handline; NAFO Subdivision 4Vn Hagfish; and LFA 27 American Lobster (Figure 9; Table A3).

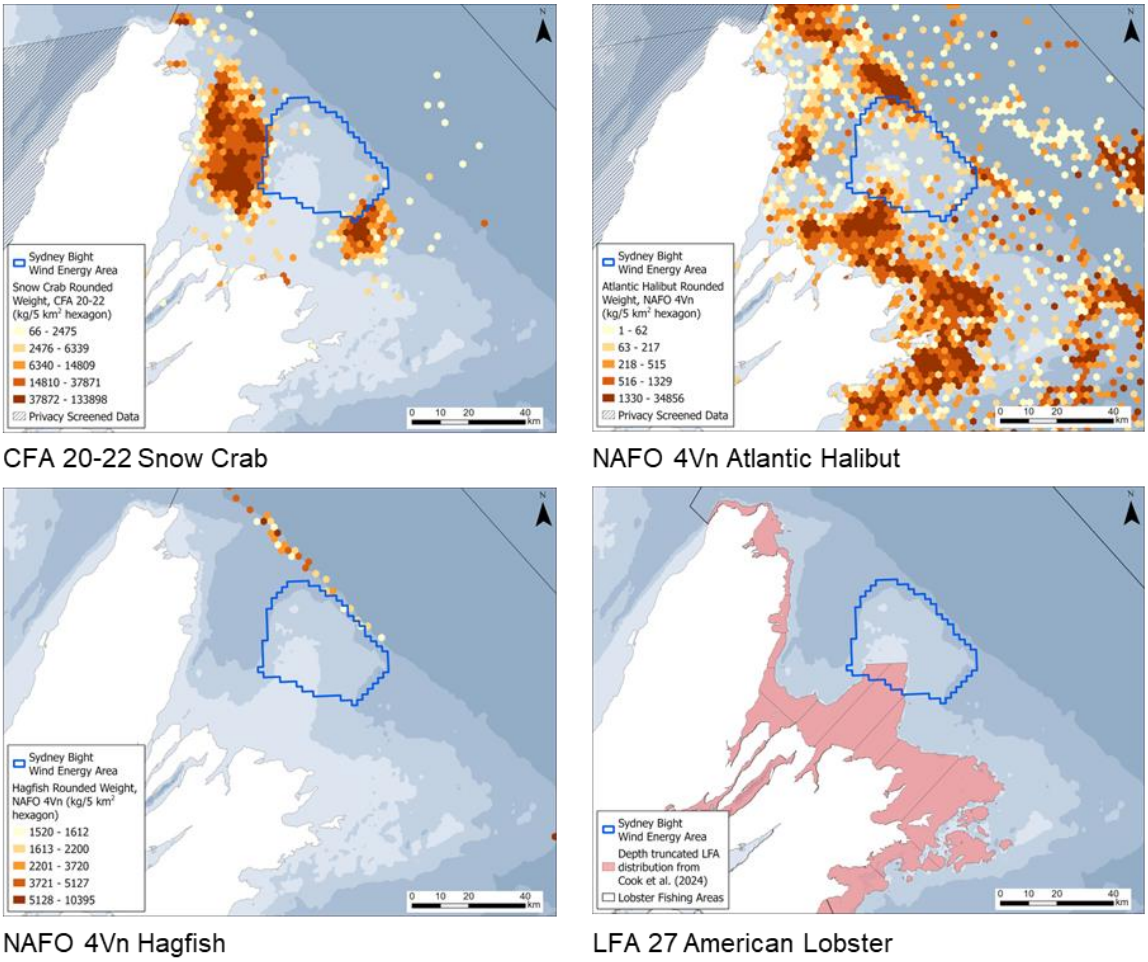


Figure 9. Aggregated total fishery landings (2012–2023) by licenced fishery management unit for fisheries that had a proportion of total landings equal to or greater than 1% reported as being landed from within the Sydney Bight WEA. Overlap between the Sydney Bight WEA and LFA 27 is shown, which includes depth-truncated LFA distributions from Cook et al. (2024); see main text for description. Refer to Figure 1 above for WEA names. See Table A3 in Appendix A for more information on these fisheries. CFA = Crab Fishing Area; LFA = Lobster Fishing Area; NAFO = Northwest Atlantic Fishery Organization.

Lobster Fishing Area 27 American Lobster is included herein given the species importance regionally to coastal communities. The inshore Lobster fishery reports landings by statistical grid. For LFA 27, the statistical grid overlaps with the Sydney Bank WEA. Analyses conducted by Cook et al. (2024) identified ‘truncated’ areas per statistical grid that either represented areas with 99% or more of reported landings in the statistical grid or the furthest area offshore that Lobster landings were reported in that statistical grid. When the analyses of Cook et al. (2024) are considered, there is a reduced overlap between LFA 27 Lobster landings and the Sydney Bight WEA, although the extent to which the Sydney Bight WEA may overlap with the Lobster fishery in LFA 27 remains uncertain.

FISHERY, ECOSYSTEM, AND MEGAFAUNA SCIENCE SURVEYS

DFO conducts a range of science surveys on the Eastern Scotian Shelf. These surveys comprise multi-species and single species fishery surveys, ocean monitoring surveys, and megafauna monitoring surveys (including sea turtle, cetacean, and marine mammal), among other types of science monitoring or project-specific research surveys. Data from

these surveys are used to inform DFO's fishery stock assessments, understanding of the state of the ocean, serve as inputs into oceanographic and atmospheric models, and guide monitoring of changes to the marine ecosystem associated with marine conservation sites, aquaculture sites, and marine industrial activities.

The DFO Maritimes Region conducts 11 fishery science surveys region-wide, four of which are run solely by DFO and seven of which are run jointly between DFO and Industry fish harvesters. Collectively, these fishery surveys document multiple species (again, having recorded more than 800 different species throughout the region). The results of these surveys inform status for over 150 regional fish stocks. On the Eastern Scotian Shelf, five long-term regional fishery surveys overlap with one or more of the four WEAs (Table 1). The five surveys have linkages to 90 regional fish stocks, 20 of which are considered major fish stocks and 14 COSEWIC-listed species.

Table 1. Long-term DFO and DFO-Industry fishery science surveys that occur on the Eastern Scotian Shelf and overlap with the one or more of the four Wind Energy Areas (WEA). FB = French Bank; MB = Middle Bank; SIB = Sable Island Bank; and SyB = Sydney Bight.

Survey Name	Legal Agreement Between DFO and Fish Harvesters	WEA Overlap	Survey Gear Type	Assessed Stocks (Major Fish Stocks)	Survey Species Target
DFO Maritimes Summer Ecosystem Survey	No	FB, MB, SIB, SyB	Mobile Trawl	78 (15)	Multi-species
Atlantic Halibut Longline Survey	Yes	FB, MB, SIB, SyB	Fixed Long-Line	34 (3)	Multi-species
DFO Maritimes Offshore Scallop Survey	Yes	FB, MB, SIB	Mobile Drag	5 (4)	Single species
DFO Maritimes Region Snow Crab Trawl Survey	Yes	FB, MB, SIB, SyB	Mobile Trawl	59 (7)	Multi-species
DFO Maritimes Northern Shrimp Trawl Survey	Yes	FB, MB	Mobile Trawl	14 (2)	Multi-species

In addition to fishery science surveys, the DFO Atlantic Zone Monitoring Program (AZMP) collects and analyzes physical, chemical, and biological oceanographic data that informs elements of the marine ecosystem. The AZMP survey is conducted twice annually in the spring and fall, with the AZMP fixed Halifax and Louisburg lines located to the west and east of French Bank WEA, Middle Bank WEA, and Sable Island Bank WEA, respectively. In contrast, the AZMP St. Anns Bank and Cabot Strait lines are located to the south and north of the Sydney Bight WEA, respectively.

The AZMP collects a suite of hydrographic data associated with all primary fishing stations sampled during the DFO Ecosystem Research Vessel Trawl Survey. On average, approximately two Conductivity, Temperature, and Depth (CTD) casts are collected per year in the French Bank and Sydney Bight WEAs, six casts in the Middle Bank WEA, and seven casts in the Sable Island Bank WEA. These represent a source of environmental data for the areas in and around each WEA, while also contributing to a broader understanding of the marine ecosystem shelf-wide.

Last, DFO undertakes a variety of marine mammal and megafauna surveys. This survey provides information on the abundance and distribution of North Atlantic Right Whales in Atlantic Canadian waters, as well as provides information about other large marine megafauna that may be detected. The survey is conducted in the Gulf of St. Lawrence, in the Bay of Fundy, on the Scotian Shelf, and on the Newfoundland and Labrador shelves.

MARINE PLANTS

In the Scotian Shelf-Bay of Fundy bioregion, kelps are generally limited to water depths of 30 m or less (Krumhansl et al. 2025). Eelgrass is found even shallower, being limited to water depths of 10 m or less (O'Brien et al. 2022). DFO Science does not expect there to be habitat for marine plants in the WEAs, although there remains a small possibility that marine plants do exist in these areas. The DFO Science marine plants distribution maps are limited to within 5 km of the coastline and do not cover offshore areas (pers comm., Dr. K. Krumhansl, DFO Maritimes Marine Plants Research Authority, 17 November 2025).

AQUATIC INVASIVE SPECIES

Aquatic invasive species (AIS) are marine or freshwater plants, animals, algae, and micro-organisms introduced outside of their natural or past distribution. This can include the introduction of species from other parts of Canada or other international locations. AIS can have significant negative impacts on the marine environment, economy, society, and human health. Many AIS are already established in Atlantic Canadian waters, including on the Scotian Shelf and in the Gulf of St. Lawerence. AIS species that are present in the Scotian Shelf-Bay of Fundy bioregion include: European Green Crab (*Carcinus maenas*); Vase Tunicate (*Ciona intestinalis*); Pancake Batter Tunicate (*Didemnum vexillum*); and Clubbed Tunicate (*Styela clava*) (DFO 2015b).

OTHER MARITIME ACTIVITIES

The Eastern Scotian Shelf in the offshore of Nova Scotia hosts many other human uses and infrastructure beyond those associated with Indigenous fisheries, commercial fisheries, and DFO science surveys.

The French Bank area hosts an active telecommunications cable (EXA Infrastructure Express, formerly Hibernia Express) and an uncharted shipwreck located at a water depth of 70.9 m (coordinates at 44° 41.404' N, 61° 04.580' W). In contrast, inactive submarine cables intersect the Middle Bank area. The Sable Island Bank area hosts an abandoned pipeline that runs inshore to Goldboro, Nova Scotia. There is also an uncharted shipwreck located at a water depth of 73.3 m (coordinates at 44° 14.433' N, 60° 46.642' W). The Sydney Bight area hosts two active telecommunications cables (i.e., Persona/Eastlink and HDR1 Bell Canada, formerly APOCS 1), an interprovincial ferry route between the Province of Nova Scotia and the Province of Newfoundland and Labrador, and an uncharted shipwreck located at 51 m at the shallowest point (coordinates at 46° 30.008' N 059° 56.189' W). In addition to these uses, non-DFO science and monitoring programs may also operate within or in proximity to the WEAs; for example, the Ocean Tracking Network (see: Bangley et al. 2020).

Any OSW development in the French Bank, Middle Bank, Sable Island Bank, and Sydney Bight WEAs should account for other human activities or features, in discussion with the applicable regulators. The presence of maritime transport, recreational fisheries, ocean disposal sites, shipwrecks, unexploded ordinance (UXO), offshore petroleum, submarine cables, military defence activities, science surveys, and/or tourism, etc., should be considered.

MARXAN CASE STUDY: OFFSHORE WIND PLANNING

Drawing upon DFO analyses that supported marine conservation network planning in the Scotian Shelf-Bay of Fundy planning area, Nagel et al. (2024) used the software *Marxan with Zones* to evaluate marine planning scenarios that considered potential OSW

development in the context of existing marine features and human uses. Results of the study were used to inform the Regional Assessment of Offshore Wind Development in Nova Scotia (Nova Scotia Regional Assessment Committee 2025). *Marxan with Zones* is an advanced planning tool that uses geospatial data to optimize land and/or marine uses by incorporating different zones that align with different planning objectives and constraints.

The objectives of Nagel et al. (2024) were to explore the capabilities of *Marxan with Zones* for marine planning, as well as to identify potential lower-conflict areas for OSW development in the Scotian Shelf-Bay of Fundy bioregion planning area that avoided known ecological features, conservation areas, and other ocean uses. In total, Nagel et al. (2024) incorporated 108 different geospatial datasets into the analysis, including: 1) ecological datasets such as EBSA, SiBA, and at-risk species; 2) existing and proposed protected area datasets such as existing MPAs, MRs, and other priority sites in the Marine Conservation Network; 3) human use datasets such as commercial fishing and vessel traffic data; and 4) datasets that represented site suitability for OSW, such as surficial geology and water depth.

Under different planning objectives and constraints, 18 scenarios were developed that each included 100 Marxan runs, which were used to develop summed solutions for two optimized zones: 1) a wind zone; and 2) an existing use zone (i.e., ecological, other human use, or both). Results represented how often areas were selected out of the 100 runs that met a scenario's objectives. The primary objective for the wind zone was to select areas potentially suitable for OSW development that avoided overlap with existing use zones. In contrast, the primary objective for the existing use zone was to select areas that had a high density of existing uses, including ecological areas and/or existing human use areas (e.g., commercial fisheries, maritime vessel transit corridors/routes, etc.).

One scenario that was explored – see Scenario C1.1 in Nagel et al. (2024) – only included shallow water depths in the wind zone (less than 70 m), in order to identify lower-conflict areas that may be suitable for fixed-base OSW development potential. In this scenario, the wind zone avoided overlap with the existing use zone (which captured 90% of each ecological feature and human use and avoided designated conservation areas) (Figure 10). When results were compared to the Middle Bank WEA, the wind zone selection frequency was higher in the central portion of the WEA, but excluded the northwest and southeast portions of the WEA, with the highest selection frequencies for existing-uses located around the edges of the WEA. For the Sable Island Bank WEA, the wind zone selection was highest in the shallowest areas of the northern portion of the WEA, but excluded any selection frequency in the southwest portion of the WEA due to its overlap with WEBMR (as designated conservation areas were set as exclusion areas in the scenario that the wind zone could not occupy). For the Sydney Bight WEA, the wind zone selection frequency was highest in the central shallow portion of the WEA, while the existing use zone exhibited the highest selection frequencies in areas that overlapped ferry routes and the southern portion of the WEA. The existing use zone selection frequency was highest on the southwest portion and edges of the Sydney Bight WEA. The wind zone did not overlap with the French Bank WEA in this scenario, as water depths exceeded 70 m.

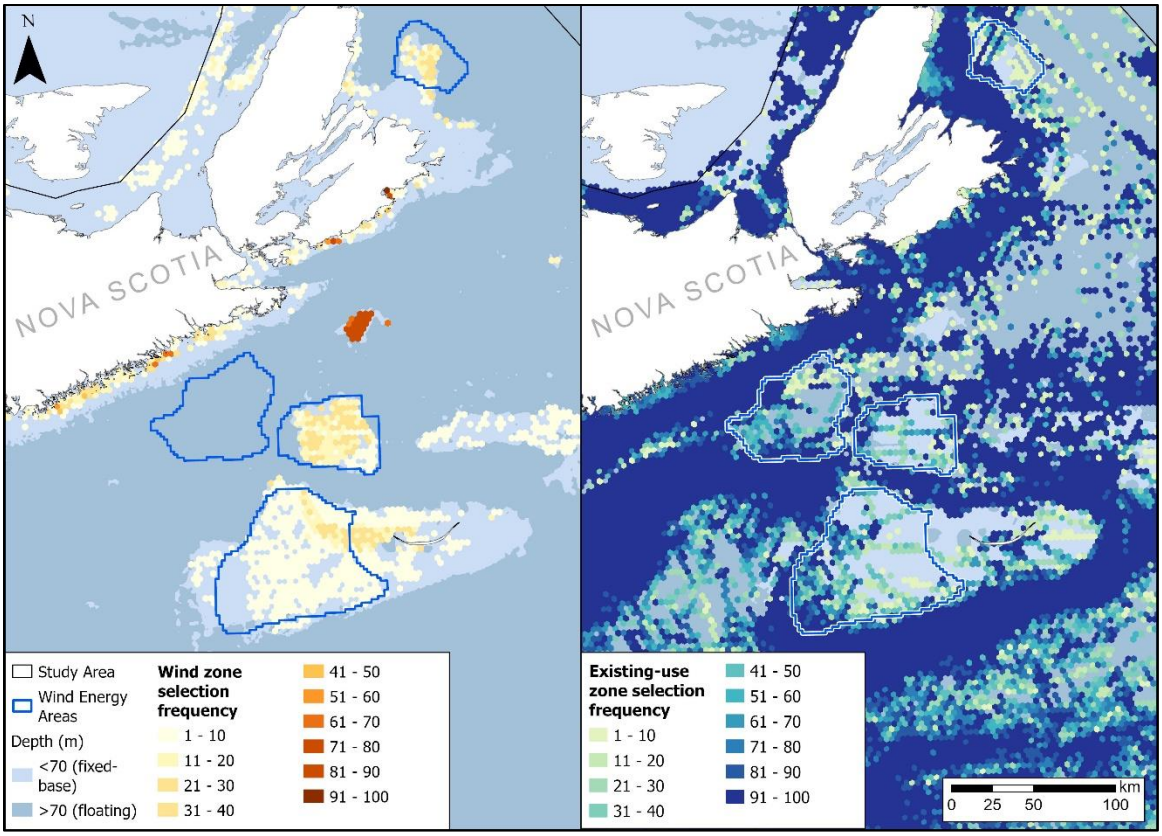


Figure 10. Summed-solution selection frequency results based on 100 Marxan runs from Scenario C1.1 depicting the wind zone (Left Panel) and existing use zone (Right Panel). In the wind zone, higher selection frequencies are denoted by darker red colours, which represent lower-conflict areas for offshore wind with existing uses. In the existing-use zone, higher selection frequencies are denoted by darker blue colours, which represent areas of higher existing use. Refer to Figure 1 above for WEA names. Figure adapted from Nagel et al. (2024).

A second scenario that was explored – see Scenario C1.2 in Nagel et al. (2024) – had similar planning targets to scenario C1.1, but did not restrict the wind zone by depth, in order to identify areas that may be suitable for both fixed-base and floating OSW development potential (Figure 11). In general, the wind zone selection frequencies were lower across all WEAs due to other suitability considerations (e.g., distance to shore) that had a greater influence on selection frequencies when compared to scenario C1.1. In this scenario, the existing use zone selection exhibited similar patterns to the existing use zone in scenario C1.1, as this zone was not limited by depth in either scenario. Around the French Bank WEA, wind zone areas with higher selection frequency included the shallowest bank areas in the eastern portion of the WEA, while the highest existing use zone selection was on the northwest corner and southern edge of the WEA (Figure 11). For the Middle Bank, Sable Island Bank, and Sydney Bight WEAs, there was moderate wind zone selection in the shallower portions of each WEA (Figure 11).

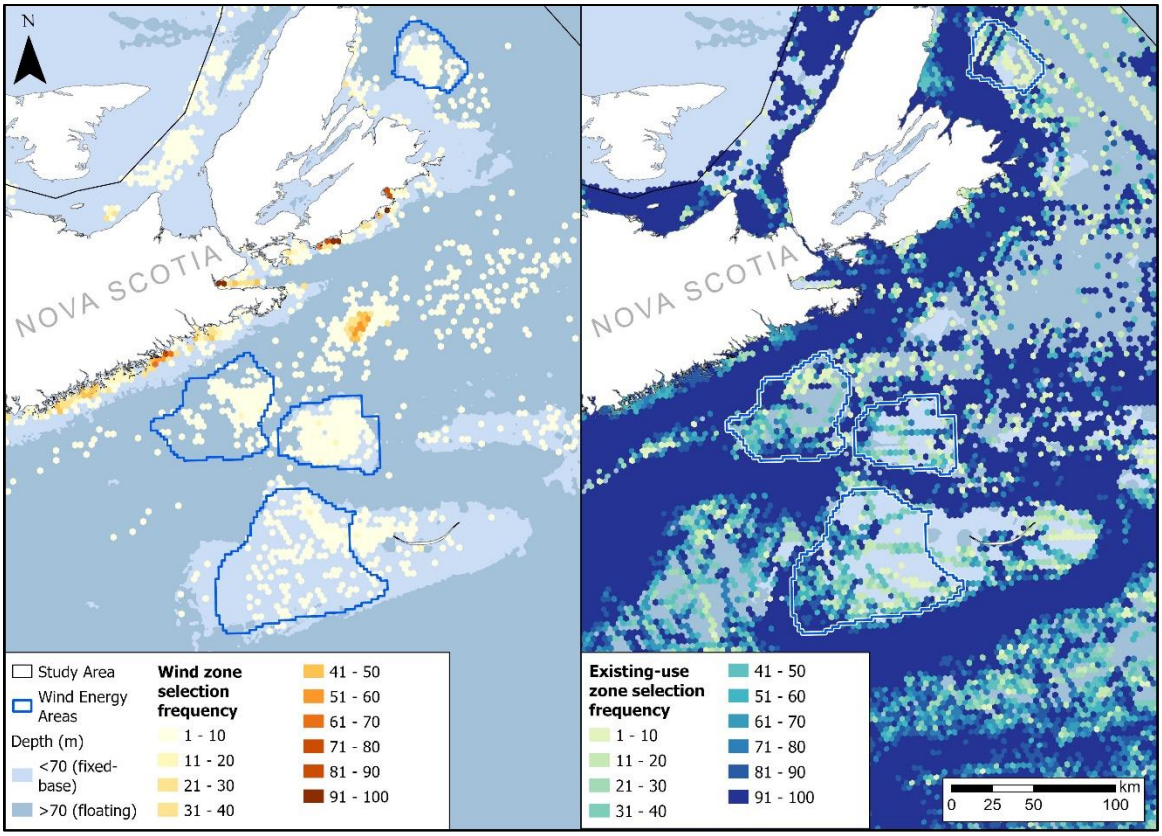


Figure 11. Summed-solution selection frequency results based on 100 Marxan runs from Scenario C1.2 depicting the wind zone (Left Panel) and the existing use zone (Right Panel). In the wind zone, higher selection frequencies are denoted by darker red colours, which represent lower-conflict areas for offshore wind with existing uses. In the existing-use zone, higher selection frequencies are denoted by darker blue colours, which represent areas of higher existing use. Refer to Figure 1 above for WEA names. Figure adapted from Nagel et al. (2024).

The results of Nagel et al. (2024) generally demonstrated that the French Bank, Middle Bank, Sable Island Bank, and Sydney Bight WEAs do represent areas that appear to pose lower conflict between OSW development and existing uses, avoiding a large proportion of areas that contain important marine ecological features, commercial fishing activity, and/or other human uses. The results of Nagel et al. (2024) are generally consistent with the findings of this manuscript, whereby the four WEAs appear to exhibit limited overlap with a broad range of ecologically and biologically important areas, marine conservation network planning and protected area sites, and commercial fisheries. It remains, however, that the WEAs may still overlap with important individual marine features, species, and human uses, which require consideration in context of OSW development.

CONCLUSIONS

Designation of the French Bank, Middle Bank, Sable Island Bank, and Sydney Bight WEAs marks a step-forward in Canada's OSW energy planning and development. The four areas are the first of their kind in Canada, collectively spanning 12,549 km² in area. This manuscript provides a high level description of the marine ecosystem and human-uses that may occur in or in proximity to each WEA, primarily drawing upon DFO published literature and data holdings.

The WEAs are situated in the offshore of Nova Scotia, within a dynamic and relatively well-studied marine ecosystem on the Eastern Scotian Shelf. The Eastern Scotian Shelf is

characterized by complex oceanographic processes, diverse surficial geology, and notable ecosystem changes that include warming trends, marine heat waves, and shifts in trophic structure. The WEAs themselves exhibit limited overlap with EBSAs, SiBAs, and existing and future marine conservation network sites, although many of these features and sites are located proximal to the WEAs.

The WEAs do intersect with habitats used by numerous at-risk and depleted species, including a range of diadromous, demersal, shark, sea turtle, and marine mammal species. The WEAs also support a range of fish species and fisheries, with those fisheries directly overlapping each of the WEAs described in more detail herein. Last, DFO science surveys and monitoring programs, including the summer DFO Ecosystem Research Vessel Trawl Survey, AZMP, and megafauna surveys, regularly collect data within and around the WEAs. Data from these science surveys are used to inform fishery stock assessments, ecosystem monitoring, and other regulatory decision-making.

A *Marxan with Zones* case study conducted by DFO demonstrated that the WEAs appear to align with lower-conflict areas for OSW energy development potential, while also avoiding existing high use areas that contain important marine ecological features, commercially-valued fish species, and/or other human uses when a broad range of information is considered. However, the WEAs still may overlap with important individual marine features, species, and human uses.

The description presented herein is intended to be a means for DFO to inform regulatory decision-makers, industry, and members of the public of the primary marine ecosystem features, significant and protected areas, at-risk and depleted species, fish and fisheries, science surveys, and other human uses that may occur in and around each of the WEAs. The description does not assess the WEA sites for offshore wind suitability nor evaluate the risk of offshore wind energy development on the marine ecosystem, marine species, or human uses in each area. As such, it may inform the scope of future risk assessments, but additional detail and analyses on marine ecosystem components, species, and human uses would be needed to inform project-specific assessments.

ACKNOWLEDGEMENT

The contents of this manuscript represent excerpts from many existing DFO publications, as well as contributions from a broad range of departmental sectors in the DFO Maritimes Region. The authors wish to thank the many DFO subject matter experts who reviewed content in earlier versions of the manuscript. Last, the authors provide a sincere thank you to the assigned DFO peer reviewers whose comments helped fill important information gaps and bring greater accuracy to the final manuscript.

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APPENDIX A: INFORMATION TABLES

Table A1. Existing and proposed sites in the Marine Conservation Network Plan for the Scotian Shelf-Bay of Fundy. See Figure 5 for site locations in relation to each of the four Wind Energy Areas (WEA). Additional information on the marine conservation network can be found at: Marine Conservation Network Plan for the Scotian Shelf-Bay of Fundy. EBSA = Ecologically and Biologically Significant Area; FSC = food, social, and ceremonial.

No.	Name	Description	Features	Species	Uses
1	Emerald Basin Extension (Proposed)	Emerald Basin Extension is a 254 km^2 Tier 2 network site immediately adjacent (west) to the existing Emerald Basin Marine Refuge.	The Emerald Basin Extension aims to protect additional concentrations of *Vazella pourtalesi* glass sponges. Emerald Basin in general supports significant aggregations of *Vazella pourtalesi* that are not found in other areas where the species occurs. The site is also representative of a shelf-basin habitat.	Sponge-dominated communities modify bottom currents and create habitat. Glass sponge aggregations provide a link between benthic (bottom layer) and pelagic (upper layer) environments, play an important role in carbon and nitrogen processing, and act as a silica sink. Sponge aggregations offer important structural habitat that provides refuge and nursery areas for a variety of marine species.	Current fisheries include groundfish (fixed and mobile gear), Hagfish, Herring (mobile gear), Lobster, Mackerel (mobile gear), Swordfish, and Tuna. There is currently a moratorium on fishing Cod and Haddock on the Eastern Scotian Shelf. First Nations can access marine resources in this area for food, social, and ceremonial (FSC) purposes. Shipping traffic is moderately-high due to the site's proximity to Halifax Harbour.
2	Emerald Basin Marine Refuge (Existing)	Emerald Basin Marine Refuge is an existing Marine Refuge established in 2017 pursuant to the *Fisheries Act*. Prohibition on commercial bottom-contact gear and/or fishing gear. Emerald Basin Marine Refuge is 259 km^2.	Species of regional importance include a significant concentration of *Vazella pourtalesi* glass sponges; aggregations of *Vazella pourtalesi* that are not found in other areas where the species occurs.	Sponge-dominated communities modify bottom currents and create habitat. Glass sponge aggregations provide a link between benthic (bottom layer) and pelagic (upper layer) environments, play an important role in carbon and nitrogen processing, and act as a silica sink. Sponge aggregations offer important structural habitat that provides refuge and nursery areas for a variety of marine species.	Prohibition on bottom-contact fishing gear can protect not only sponges, but a diversity of other species of fish and invertebrates that utilize the complex structural habitat that the sponges provide. This area can act as a natural refuge area that may contribute to increased species productivity and in turn potentially lead to increased abundance within and adjacent to the area.
3	Inner Shelf Sea Pen Field Tier 2 site (Proposed)	The Inner Shelf Sea Pen Field is a Tier 2 network site. It is located northeast of Emerald Basin on the Scotian Shelf, approximately 90 km east of Halifax, Nova Scotia. The Inner Shelf Sea Pen Field site is 260 km^2.	Significant concentrations of sea pens, important habitat for White Hake, area of high fish and invertebrate diversity, and is a representative example of shelf habitat.	Depleted groundfish populations, including White Hake. Sea pens help create complex, structural habitats on the seafloor, providing refuge habitat and nursery areas for a diverse range of fish and invertebrate species.	Fisheries include groundfish (fixed and mobile gear), Hagfish, Herring (fixed and mobile gear), Lobster, Mackerel (mobile gear), Scallop, Swordfish, and Tuna. There currently is a moratorium on fishing Cod and Haddock on the Eastern Scotian Shelf. First Nations can access marine resources in this area for FSC purposes. Shipping traffic is high due to its proximity to Halifax Harbour.
4	Eastern Shore Islands (Area of Interest)	The Eastern Shore Islands Area of Interest for potential designation as a Marine Protected Area pursuant to the *Oceans Act* includes nearshore waters surrounding the dense archipelago on the eastern shore of Nova Scotia. The site stretches from Clam Bay near Jeddore Harbour to Barren Island near Liscomb Point and extends approximately 25 km from the mainland. The Eastern Shore Islands Area of Interest is approximately 2,000 km^2.	Highly natural area that includes rich beds of eelgrass, kelp, and salt marsh that provide important habitat for many marine species, including commercial fishery species that use these habitats as juveniles. Estuaries associated with several rivers that drain into this site are considered important habitat for endangered Atlantic Salmon. This area is part of a coastal migratory corridor for many species, including sharks, Tuna, groundfish, Atlantic Salmon, and Leatherback Turtle. The dense archipelago of hundreds of islands has been identified as a coastal EBSA that provides important nesting and foraging ground for many colonial seabirds and shorebirds. Many of the islands are protected through provincial and private conservation efforts, including current efforts by the Nova Scotia Nature Trust's "100 Wild Islands Legacy Campaign."	Significant concentrations of kelp beds and eelgrass; area used by juvenile Cod, White Hake, and Pollock (*Pollachius virens*); spawning area for Herring; important habitat for Atlantic Salmon; and significant foraging area for a variety of sea- and shorebirds, including Harlequin Duck (*Histrionicus histrionicus*), Purple Sandpiper (*Calidris maritima*), and Roseate Tern (*Sterna dougallii*).	Fisheries include Groundfish, Herring, Lobster, and Scallop; seaweed harvesting also occurs in the area. First Nations can access marine resources in this area for FSC purposes.
5	St. Mary's (Napu'saqnuk) River and Estuary Tier 1 Site (Proposed)	The St. Mary's River (Napu'saqnuk) and estuary is a Tier 1 network site and has been approved by DFO as an Ecologically Significant Area (ESA) candidate under the *Fisheries Act*. ESAs are not intended to regulate fishing. The site includes the river, estuary, other wetted areas, and potentially riparian zones on Crown Land. It does not include the entire watershed area. The St. Mary's	Highly important river for Nova Scotia Southern Upland Atlantic Salmon (the river is used as an index river by DFO Science to monitor this population); large populations of at-risk freshwater turtles; presence of salt marsh, marine plants and lichens; nearby terrestrial protection, including Archibald Lake Wilderness Area; high relative naturalness;	Southern Upland Atlantic Salmon; Brook Floater (*Alasmidonta varicosa*); American Eel; Wood Turtle (*Glyptemys insculpta*); Brook Trout (*Salvelinus fontinalis*); Gaspereau (*Alosa pseudoharengus* and *Alosa aestivalis*); Rainbow Smelt (*Osmerus mordax*); American Lobster; Eelgrass (*Zostera marina* and *Rupia martima*); Mainland Moose (*Alces alces americana*; and at-risk bird species, including: Bank	The Mi'kmaq have historically used the river for travel, fishing, hunting, and living. Napu'saqnuk is a place of cultural importance for the Mi'kmaq. Fisheries include: Lobster and coastal fishing for Gaspereau. There are 219 active mineral exploration licenses in the watershed, but no active mines. Recreational activities include: boating, kayaking, and recreational angling. There is a DFO Small Craft

No.	Name	Description	Features	Species	Uses
		(Napu'saqnuk) river and estuary site is approximately 160 km^2 of water (including 11 km^2 of the estuary).	no dams impeding fish passage; and no known freshwater aquatic invasive species.	Swallow (*Riparia riparia*), Chimney Swift (*Chaetura pelagica*), Common Nighthawk (*Chordeiles minor*), and Evening Grosbeak (*Coccothraustes vespertinus*).	Harbour in the Sonora estuary. Forestry and agricultural practices take place in the watershed. First Nations can access marine resources in this area for FSC purposes.
6	Country Island Tier 2 Site (Proposed)	Country Island is a Tier 2 network site. It spans from Drum Head to Goose Point and includes waters around Goose Island, Harbour Island, Country Island, Coddles Island, and other nearby small islands. The Country Island size is 113 km^2.	Important foraging area for seabirds, sea ducks, and shorebirds; significant nesting area for birds; identified as an Important Bird Area and Critical habitat for Roseate Terns. Presence of eelgrass. Nearby terrestrial protection, including Country Island National Wildlife Area.	Seabirds, sea ducks, and shorebirds, such as: Roseate Tern, Leach's Storm-petrel (*Hydrobates leucorhous*), and American Black Duck (*Anas rubripes*); and Eelgrass.	Current fisheries include Bluefin Tuna, groundfish (fixed gear), Lobster and Scallop; seaweed harvesting also occurs in the area. First Nations can access marine resources in this area for FSC purposes.
7	Canso Ledges-Sugar Harbour Islands Tier 1 Site (Proposed)	Canso Ledges-Sugar Harbour Islands is a Tier 1 network site that includes the waters around the Canso Peninsula, from Sugar Harbour Islands to Fox Bay. It also extends into Chedabucto Bay. The Canso Ledges-Sugar Harbour Islands site is 524 km^2.	Feeding area for whales, dolphins and porpoises; important foraging area for seabirds, sea ducks, and shorebirds; presence of rockweed (*Ascophyllum nodosum*); overwintering area for Atlantic Herring; juvenile/nursery area for Sand Lance and Grubby (*Myoxocephalus aenaeus*); area of high fish and invertebrate diversity; nearby terrestrial protections, including: Canso Coastal Barrens Wilderness Area, Sugar Harbour Islands Nature Reserve, Black Duck Cove Provincial Park, Andrews Island Provincial Park, and Canso Islands National Historic Site; area of high productivity; and unique bay in size and depth.	Cetaceans, such as: Fin Whale, Harbour Porpoise, Minke Whale, Atlantic White-sided Dolphin, and White-beaked Dolphin (*Lagenorhynchus albirostris*); Atlantic Herring, Sand Lance, and Grubby; groundfish, such as: Atlantic Cod, Winter Skate, Atlantic Wolffish, Acadian Redfish, and Thorny Skate; seabirds, sea ducks and shorebirds, such as: Roseate Tern and Harlequin Duck; and Rockweed.	Fisheries include Bluefin Tuna, Crab, Groundfish (fixed and mobile gear), Hagfish, Lobster, Mackerel, Scallop, Sea Cucumber, Sea Urchin (dive), Shrimp (mobile gear), and Swordfish. There is a moratorium on fishing Cod and Haddock on the Eastern Scotian Shelf. There was an important winter purse seine fishery for Herring, although this has not been active in recent years. Recreational activities include: kayaking and hiking. There is high shipping traffic due to proximity to the main shipping lanes to the Strait of Canso Superport. A marine terminal is planned at the proposed Black Point quarry. Green hydrogen and ammonia facilities and a marine cargo terminal are proposed for the Strait of Canso area. A commercial spaceport has been proposed near Canso. First Nations can access marine resources in this area for FSC purposes.
8	Canso Bank and Channels Tier 2 Site (Proposed)	Canso Bank and Channels is a Tier 2 network site located approximately 45 km southeast of Canso. This area encompasses a portion of Canso Bank and some of the surrounding basin, channels, holes, and mounds. The Canso Bank and Channels size is 3,150 km^2.	Significant concentrations of sponges and sand dollars (*Echinarachnius parma*); foraging habitat for seabirds; important habitat for groundfish; area of high larval, fish and invertebrate diversity; area of high primary productivity; diverse habitat types include sandy banks, small channels, deep holes, and mounds; and representative examples of bank and basin habitats.	Sand Lance; groundfish, such as: Cod, American Plaice, Thorny Skate, and Atlantic Wolffish; and sponges and sand dollars.	Fisheries include groundfish (fixed and mobile gear), Clam, Lobster, Sea Cucumber, Sea Urchin (dive), Snow Crab, Shrimp (mobile gear), Swordfish, and Tuna. There is a moratorium on fishing Cod and Haddock on the Eastern Scotian Shelf; high amount of shipping traffic. First Nations can access marine resources in this area for FSC purposes.
9	Western and Emerald Banks Marine Refuge (Existing)	Western and Emerald Banks is an existing Marine Refuge established in 2017 pursuant to the Fisheries Act. There is a prohibition on all commercial and recreational fisheries using bottom-contact gear and/or gear known to interact with groundfish. The Western and Emerald Banks Marine Refuge is 10,234 km^2.	Complex benthic-shelf habitat that supports significant spawning and nursery ground for Haddock, as well as other demersal species.	Fish species including Atlantic Cod, Herring, Halibut, Silver Hake, American Plaice, Redfish, Winter Skate, and Yellowtail Flounder inhabit this area. The presence of a partial gyre near the refuge leads to increased retention of larval fish and locally-increased zooplankton diversity, a primary larval food source. Historically, larval fish diversity has been exceptionally high compared to other areas on the Eastern Scotian Shelf.	Prohibition on bottom-contact fishing gear can protect not only the spawning and juvenile Haddock, but a diversity of other groundfish and invertebrate species that use the complex bank habitat. This area can act as a refuge that may contribute to increased species productivity, which in turn, could potentially lead to increased abundance within and adjacent to the area.
10	Sable Island Bank North Tier 2 Site (Proposed)	Sable Island Bank North is a Tier 2 network site. It is located approximately 80 km west of Sable Island and includes a small portion of Sable Island Bank. This site is directly northeast of the Western and Emerald Banks Marine Refuge. The Sable Island Bank North site is 944 km^2.	Presence of sea pens, Horse Mussels (*Modiolus modiolus*), and sand dollars; spawning and nursery area for groundfish, particularly Haddock; important fish habitat; area of high invertebrate, fish and larval fish diversity; Western and Emerald Banks Marine Refuge is located to the west; representative example of bank habitat; and unique oceanography (part of the largest gyre on the Scotian Shelf).	Groundfish such as: Cod, Roundnose Grenadier, Winter Skate, White Hake, and Smooth Skate; Ocean Pout; sea pens, Horse Mussels and sand dollars.	Fisheries include Bluefin Tuna, Crab, groundfish (fixed and mobile gear), Hagfish, Scallop, Sea Cucumber and Swordfish. There is a moratorium on fishing Cod and Haddock on the Eastern Scotian Shelf. First Nations can access marine resources in this area for FSC purposes.

No.	Name	Description	Features	Species	Uses
11	Sable Island Bank South Tier 2 Site (Proposed)	Sable Island Bank South is a Tier 2 network site. It is located approximately 60 km southwest of Sable Island and includes a small portion of both Sable Island Bank. This site is immediately east of the Western and Emerald Banks Marine Refuge. The Sable Island Bank South site is 1,087 km^2.	Presence of Horse Mussels and sand dollars; spawning and nursery area for groundfish, particularly Haddock; important fish habitat; area of high invertebrate, fish and larval fish diversity; Western and Emerald Banks Marine Refuge is located to the west; representative example of bank habitat; and unique oceanography (part of the largest gyre on the Scotian Shelf).	Groundfish such as: Cod, Roundnose Grenadier and Winter Skate; Horse Mussels and sand dollars.	Fisheries include Bluefin Tuna, Crab, groundfish (fixed and mobile gear), Scallop, and Swordfish. There is a moratorium on fishing Cod and Haddock on the Eastern Scotian Shelf. First Nations can access marine resources in this area for FSC purposes.
12	Logan Canyon Tier 2 Site (Proposed)	Logan Canyon is a Tier 2 network site and is located approximately 40 km south of Sable Island on the central Scotian Shelf. The Logan Canyon size is 2,299 km^2.	Suspected concentrations of bubblegum coral (*Paragorgia arborea*), sea pens, soft coral, and small gorgonian coral; important habitat to support coral connectivity; area of high finfish diversity; and one of several shelf-incising submarine canyons on the central Scotian Shelf.	Groundfish such as: Cusk (*Brosme brosme*), White Hake, Acadian Redfish, and Roundnose Grenadier (*Coryphaenoides rupestris*); bubblegum coral, sea pens and soft corals.	Fisheries include Crab, groundfish (fixed and mobile gear), Hagfish, Herring (mobile gear), Mackerel (fixed and mobile gear), Swordfish and Tuna. There is a moratorium on fishing Cod and Haddock on the Eastern Scotian Shelf. There is low shipping traffic. First Nations can access marine resources in this area for FSC purposes.
13	Gully Marine Protected Area (Existing)	The Gully is an existing Marine Protected Area. It was designated as an MPA in 2004 pursuant to the *Oceans Act*. The Gully MPA Regulations prohibit any activities that disturb, damage, destroy or remove living marine organisms or any part of their habitat, unless the activity is listed as an exception in the regulations or approved by the Minister. The Gully MPA size is 2,363 km^2. Conservation priorities for the Gully MPA include: 1) protecting whales and dolphins from the impacts of human activities; 2) protecting seafloor communities and habitat from alterations caused by human activities; 3) maintaining or restoring the quality of the water and sediments of the canyon; and 4) protecting aquatic species.	Shallow sandy banks; deep-water canyon environment; and portions of the continental slope and abyssal plain.	Northern Bottlenose Whale (*Hyperoodon ampullatus*); fifteen other species of whales and dolphins; tiny plankton; variety of fish such as sharks, Tunas and Swordfish, Halibut, Skates, Cusk, and Lanternfish (*Myctophidae*); seabirds; and ocean floor supports: crabs, sea pens, anemones, brittle stars, and approximately 30 species of cold-water corals.	Marine navigation; select fishing activities; and other activities subject to an approved activity plan.
14	Bras d'Or Lake Tier 1 Site (Proposed)	Bras d'Or Lake is a Tier 1 network site. Potential Bras d'Or Lake conservation network sites will be determined in coordination with the Unama'ki Institute of Natural Resources. It is a large inland sea on Cape Breton Island. The Bras d'Or Lake site is 1,457 km^2.	Cultural significance for the Mi'kmaw communities of Unama'ki (Cape Breton); provincially-significant numbers of nesting bald eagles; presence of salt marsh and eelgrass; distinct marine algae including regionally rare species; spawning habitat for Atlantic Salmon and Herring; identified as an Important Bird Area and watershed designated as a UNESCO Biosphere Reserve; nearby terrestrial protection (e.g., Spectacle Island Game Sanctuary); unique oceanographic characteristics, including large temperature changes, stratification (distinct horizontal water layers), and limited exchange with the open ocean, supports relict warm and cold-water species; and unique inland estuarine ecosystem.	American oyster (*Crassostrea virginica*) beds; polychaete worms; Eastern Cape Breton Atlantic Salmon; Herring; Alewife (*Alosa pseudoharengus*), Mackerel, and Three-spined Stickleback (*Gasterosteus aculeatus*); groundfish, such as: Cod, American Plaice, Winter Skate, and White Hake; seabirds and shorebirds, such as: Barrow's Goldeneye (*Bucephala islandica*) and Bald Eagles (*Haliaeetus leucocephalus*); and salt marsh, eelgrass and marine algae.	The Bras d'Or Lake watershed is home to five First Nations. A Traditional Ecological Knowledge workshop sponsored by the Bras d'Or Lake Collaborative Environmental Planning Initiative (CEPI) identified 40 sites of cultural, social, and recreational significance within the watershed. Fisheries include Bluefin Tuna, Crab, groundfish (fixed gear), Lobster, and Scallop. Shellfish harvesting also occurs. There are shellfish and finfish aquaculture leases. Recreational fisheries, including: Eel, Mackerel, Smelt, and Atlantic Salmon (catch and release only); recreational activities, including: boating, sailing, and beachgoing. Coastal development, forestry and mining occur in the watershed. There is some shipping traffic from mining operations and a small cable ferry. First Nations can access marine resources in this area for FSC purposes.
15	Aspy Bay Tier 2 Site (Proposed)	Aspy Bay is a Tier 2 network site. It is located off the northern coast of Cape Breton. It spans the coast from White Point to Pollys Brook and includes North Harbour, Middle Harbour, and South Harbour. The Aspy Bay site is 54 km^2.	Feeding area for whales; important foraging area for seabirds and shorebirds; presence of salt marsh, kelp and eelgrass; overwintering area for Herring; important spawning river for Atlantic Salmon drains into Aspy Bay; identified as an Important Bird Area and Critical Habitat for Piping Plover (*Charadrius melodus*); nearby terrestrial protection, including: Polletts Cove (Aspy Fault Wilderness Area) and Yellow Head Conservation Lands; and high productivity due to lagoons.	Cetaceans, such as: Fin Whale, Humpback Whale, Minke Whale, and Pilot Whale; Eastern Cape Breton Atlantic Salmon; Atlantic Herring; seabirds and shorebirds, such as: Piping Plover and Great Blue Heron (*Ardea herodias*); and salt marsh, kelp, and eelgrass.	Current fisheries include Crab, groundfish (fixed gear), Lobster, Herring (fixed gear) and Mackerel (fixed gear). There is a moratorium on fishing Cod and Haddock on the Eastern Scotian Shelf. Shellfish harvesting occurs. There are shellfish and finfish aquaculture leases. Recreational activities include: hiking, beachgoing, and whale watching. First Nations can access marine resources in this area for FSC purposes.

No.	Name	Description	Features	Species	Uses
16	Ingonish Bays Tier 2 Site (Proposed)	Ingonish Bays is a Tier 2 network site. It is located off the northern coast of Cape Breton. It spans the coast from Ingonish to Cape Smokey Provincial Park and includes the waters of North Ingonish Bay and South Ingonish Bay. The Ingonish Bays site is 117 km^2.	Feeding area for whales; important foraging area for seabirds and shorebirds; significant nesting area for Great Cormorants (*Phalacrocorax carbo*); presence of kelp; two spawning rivers for Atlantic Salmon drain into the Ingonish bays; identified as two Important Bird Areas; and nearby terrestrial protection, including: Cape Smokey Provincial Park and Cape Breton Highlands National Park.	Cetaceans, such as: Fin Whale, Humpback Whale, Minke Whale, and Pilot Whale; Eastern Cape Breton Atlantic Salmon; seabirds and shorebirds, such as: Great Black-backed Gull (*Larus marinus*), Great Cormorant, and Herring Gull (*Larus smithsonianus*); and kelp.	Fisheries include Crab, groundfish (fixed gear), Herring (fixed gear), Lobster, Mackerel (fixed gear) and Scallop. There is a moratorium on fishing Cod and Haddock on the Eastern Scotian Shelf. Recreational activities include: hiking, beachgoing, golfing, boating, and whale watching. First Nations can access marine resources in this area for FSC purposes.
17	Birds Island Tier 1 Site (Proposed)	Birds Island is a Tier 1 network site. It includes the waters surrounding Ciboux and Hertford Islands, which are located off of the northern coast of Cape Breton near Cape Dauphin. The Birds Island site is 11 km^2.	Area of high cultural significance to the Mi'kmaq people; important foraging area for seabirds and shorebirds; area of high bird diversity; overwintering area for Herring; juvenile/nursery area for Cod and White Hake; high abundance of Scallop; identified as an Important Bird Area; nearby terrestrial protection, including: Bird Islands Wildlife Management Area and Hertford Island (managed by the Nova Scotia Nature Trust as a bird sanctuary); and isolated island (unique geomorphological feature).	Herring; groundfish such as: White Hake, Cod, and Winter Skate; seabirds and shorebirds, such as: Northern Gannet (*Morus bassanus*), Atlantic Puffin (*Fratercula arctica*), Great Cormorant, and Black-legged Kittiwake (*Rissa tridactyla*).	The nearby Kluskap sea cave is a very important Mi'kmaw site of strong cultural and spiritual significance; fisheries include Lobster, Rock Crab, and Scallop. Recreational activities include: hiking, boat and kayak tours, bird and whale watching. First Nations can access marine resources in this area for FSC purposes.
18	Big Glace Bay Lake Migratory Bird Sanctuary (Existing)	Big Glace Bay Lake Migratory Bird Sanctuary is managed by the Canadian Wildlife Service. It is located on the northeastern coast of Nova Scotia. The Big Glace Bay Lake Migratory Bird Sanctuary size is 3.93 km^2.	Gravel beach (5%), mixed woodland (23%), salt marsh (5%), shallow coastal water, and eelgrass flats (67%).	Piping Plover; other key bird species include: American Black Duck, Canada Goose (*Branta canadensis*), Common Goldeneye (*Bucephala clangula*), Bufflehead (*Bucephala albeola*), and Common Tern (*Sterna hirundo*).	Largely recreational activity (e.g., bird watching); restrictions on hunting and pet animals.
19	St Anns Bank Marine Protected Area (Existing)	St Anns Bank is an existing Marine Protected Area (MPA). It was designated as an MPA in 2017 pursuant to the *Oceans Act*. The St Anns Bank MPA Regulations prohibit any activities that disturb, damage, destroy or remove living marine organisms or any part of their habitat, unless the activity is listed as an exception in the regulations or approved by the Minister. The St. Anns Bank MPA size is 4,364 km^2. Conservation priorities for the St Anns Bank MPA include: 1) conserve and protect all major benthic, demersal (i.e., close to the sea floor) and pelagic (i.e., in the water column) habitats within the MPA, along with their associated physical, chemical, geological and biological properties and processes; 2) conserve and protect marine areas of high biodiversity at the community, species, population and genetic levels within the MPA; and 3) conserve and protect biological productivity across all trophic levels so that they are able to fulfill their ecological role in the ecosystems of the MPA.	St. Anns Bank is an exceptional habitat that has many ecologically and biologically significant features. It has the highest annual sea surface temperature range on the Scotian Shelf and provides important habitat for many commercial and non-commercial marine species; there is a wide variety of habitat types that support biodiversity, from the shallows of St. Anns Bank to the depths of the Laurentian Channel.	Marine species include: Cod, Acadian Redfish, White Hake, Witch Flounder, and a variety of sponges, corals, and sea pens; scientific surveys have recorded more than 100 species in this area; endangered, threatened, and/or special concern marine species, such as Leatherback Turtles, Atlantic Wolffish, Cod, American Plaice, and Acadian Redfish, are also present in the area; in addition, St. Anns Bank is part of an important migration corridor for fish and marine mammals, including whales, moving in and out of the Gulf of St. Lawrence and St. Lawrence Estuary.	Marine navigation; select fishing activities; and other activities subject to an approved activity plan.

Table A2. Summary of at-risk and/or depleted aquatic species that utilize or may be found in proximity to the four Wind Energy Areas (WEA). For purposes herein, 'at-risk' are those species assessed by the Committee on the Status of Endangered Wildlife in Canada (or COSEWIC) as being of 'special concern', 'threatened', or 'endangered' in Canada and/or listed pursuant to the *Species at Risk Act* (SARA). 'Depleted species' are considered those species that are currently at a very low abundance, but were much more abundant at some point in the past. Many, but not all, depleted species have been assessed as at-risk by COSEWIC. The list of select CSAS publications only includes recent or relevant science publications to provide a starting point to understand the species; it is not inclusive of all science publications that may be relevant. CSAS = DFO Canadian Science Advisory Secretariat; DU = Designatable Unit; RS = Recovery Strategy; AP = Action Plan; MP = Management Plan; SAR = Science Advisory Report; RD = Research Document; (—) = no information.

Species	SARA Status	COSEWIC Assessment Status and Report (Date Last Assessed)	Recovery Potential Assessment	SARA Recovery Documents	Other Select CSAS Publications	Species Description	Limiting Factors and/or Primary Threats in Atlantic Canadian Waters
Diadromous Fish							
Bass, Striped (Bay of Fundy)	No Status	Endangered (11/1/2012)	2014/053	—	2001/007	A diadromous species. The natural range of Striped Bass extends along the Atlantic coast of North America from the St. Lawrence Estuary to the St. Johns River in northern Florida. In Atlantic Canada, the only known native Striped Bass populations spawn in five rivers in eastern Canada are: the St. Lawrence, Miramichi, Shubenacadie, Annapolis and Saint John rivers. The Atlantic Canadian Striped Bass populations migrate upstream in the fall and overwinter in fresh or brackish water. The reason for this behaviour appears to be to avoid low ocean temperatures in winter.	Limiting factors and primary threats include directed fisheries, illegal fishing, commercial fishery bycatch, habitat alteration and loss (e.g., causeways, hydroelectric facilities etc.), and changes to habitat water quality.
Bass, Striped (Southern Gulf of St. Lawrence)	No Status	Special Concern (11/1/2012)	—	—	2021/018 2025/001	A diadromous species. The natural range of Striped Bass covers the Atlantic coast of North America from the St. Lawrence River to the St. Johns River in northeast Florida. The southern Gulf of St. Lawrence DU occurs in the southern Gulf of St. Lawrence, primarily on the east coast of New Brunswick, but also part of the coast of Nova Scotia, Prince Edward Island, and eastern Québec (Chaleur Bay and Gaspé). There is only a single spawning population (Northwest Miramichi River). The population migrate upstream in the fall and overwinter in fresh or brackish water. The reason for this behaviour appears to be to avoid low ocean temperatures in winter.	Limiting factors and primary threats include directed fisheries, illegal fishing, commercial fishery bycatch, habitat alteration and loss (e.g., causeways, hydroelectric facilities etc.), and changes to habitat water quality.
Eel, American	No Status	Threatened (5/1/2012)	2013/078	—	2013/134 2019/054 2023/013 2024/046	A diadromous species. American Eel spawn only once during their life span and the entire population spawns together in the Sargasso Sea located south of Bermuda. Post-spawning, the eel larvae drift on North Atlantic currents for up to one year before reaching coastal waters. They then metamorphose into a life stage where they leave the open ocean and enter sheltered salt-water bays, brackish estuaries or freshwater. The American Eel range extends from Greenland to northern South America.	Limiting factors and primary threats include directed fishing, bycatch in other fisheries, directed fisheries on potential prey, physical obstructions, water quantity, water quality, pollutants, chemicals and wastewater, habitat alteration, parasites and diseases, changes in ecosystems, boat and ship traffic, underwater electric cables, oil and gas exploration, and scientific research.
Salmon, Atlantic (ECB DU)	No Status	Endangered (11/26/2010)	2013/072	—	2015/058 2023/043	A diadromous species. The Eastern Cape Breton DU of Atlantic Salmon consists of an assemblage of salmon populations that occupy rivers in a region of Nova Scotia extending from the northern tip of Cape Breton Island along the Atlantic coast to the Canso Causeway.	Limiting factors and primary threats include illegal fishing, salmonid aquaculture, disease and parasites, and changing oceanographic conditions.
Salmon, Atlantic (SU DU)	No Status	Endangered (11/26/2010)	2013/009	—	2009/081 2015/058 2023/043 2024/050	A diadromous species. The Southern Upland DU of Atlantic Salmon consists of the salmon populations that occupy rivers in a region of Nova Scotia extending from the northeastern mainland near Canso, into the Bay of Fundy at Cape Split. This region includes rivers on both the Eastern Shore and South Shore of Nova Scotia draining	Limiting factors and primary threats in freshwater systems include: acidification, altered hydrology, invasive fish species, habitat fragmentation due to dams and culverts, and illegal fishing and poaching. Limiting factors and primary threats in estuarine and marine environments include: salmonid aquaculture and marine ecosystem changes.

Species	SARA Status	COSEWIC Assessment Status and Report (Date Last Assessed)	Recovery Potential Assessment	SARA Recovery Documents	Other Select CSAS Publications	Species Description	Limiting Factors and/or Primary Threats in Atlantic Canadian Waters
						into the Atlantic Ocean, as well as Bay of Fundy rivers south of Cape Split	
Sturgeon, Atlantic (Maritimes Population)	No Status	Threatened (5/1/2011)	2013/022	—	2009/029	A diadromous species. Atlantic Sturgeon occur in rivers, estuaries, nearshore marine environments, and the shelf regions to at least 50 m depths along the Atlantic coast of North America. They range as far north as Ungava Bay, Labrador, into the Gulf of St. Lawrence, southward on the Atlantic coast to Florida and along the coast of the Gulf of Mexico.	Limiting factors and primary threats include directed fisheries, illegal fishing, habitat alteration and loss (e.g., causeways, hydroelectric facilities etc.), and changes to habitat water quality.
Demersal Fish							
Cod, Atlantic (Southern population)	No Status	Endangered (3/9/2010)	2015/069	—	2024/003 2025/017	A demersal (bottom-dwelling) fish that occupies a broad range in Atlantic Canada, from Georges Bank and the Bay of Fundy in the south, northward over the Scotian Shelf, into the Gulf of St. Lawrence, Grand Bank, and Labrador Shelf to Baffin Island. The habitat type for adult Cod is quite diverse.	Limiting factors and primary threats include directed fisheries, discards and bycatch, natural mortality, seal predation, and marine ecosystem changes.
Hake, White (Atlantic & Gulf of St. Lawrence)	No Status	Threatened (11/1/2013)	2016/035	—	2005/058 2025/017	A demersal (bottom-dwelling) fish that occupies a broad range in Atlantic Canada, from Georges Bank and the Bay of Fundy in the south, northward over the Scotian Shelf, into the Gulf of St. Lawrence, and southern Grand Bank. They are found near the bottom and are commonly captured over fine sediment substrates such as mud, but are also reported on sand and gravel. They adjust their depth distribution to find temperatures in the range of 4 to 8° C.	Limiting factors and primary threats include directed fisheries, discards and bycatch, and marine ecosystem changes.
Plaice, American (Maritimes Population)	No Status	Threatened (4/26/2009)	—	—	2025/017	A demersal (bottom-dwelling) flatfish that occupies a broad range in Atlantic Canada, from Georges Bank and the Bay of Fundy in the south, northward over the Scotian Shelf, into the Gulf of St. Lawrence, surrounding Newfoundland and Labrador and along the eastern coast of Baffin Island. They have shown evidence of high natural mortality.	Limiting factors and primary threats include directed fisheries, discards and bycatch, natural mortality, and marine ecosystem changes.
Redfish, Acadian (Atlantic Population)	No Status	Threatened (4/25/2010)	—	—	2023/022	A demersal (bottom-dwelling) fish that occupies a broad range in Atlantic Canada, from the Gulf of Maine to the southern Labrador Sea, including the Gulf of St. Lawrence, Laurentian Channel, and Grand Banks. They have shown long life span, late maturation and slow growth, which are limiting factors to population growth.	Limiting factors and primary threats include directed fisheries, discards and bycatch, long lifespan, and marine ecosystem changes.
Redfish, Deepwater (GSL, Laurentian Channel Pop)	No Status	Endangered (4/25/2010)	—	—	2022/039	A demersal (bottom-dwelling) fish found on both sides of the Atlantic Ocean. In Atlantic Canadian waters its range is from the Grand Banks to Baffin Bay, including the Gulf of St. Lawrence, Laurentian Channel, and Labrador Sea. It has shown long life span, late maturation, and slow growth, which are limiting factors to population growth.	Limiting factors and primary threats include directed fisheries, discards and bycatch, long lifespan, and marine ecosystem changes.
Skate, Smooth (Laurentian Channel / Scotian Shelf)	No Status	Special Concern (5/4/2012)	—	—	2017/011 2025/017	A demersal (bottom-dwelling) fish species that occupies a broad range in Atlantic Canada, from Georges Bank to the Nose of the Grand Bank. They live on the sea bottom and prefer soft mud and clay substrates. They are found over a fairly wide range of depths, although this is narrower at	Limiting factors and primary threats include discards and bycatch, long lifespan, and marine ecosystem changes. The species is not subject to a targeted fishery.

Species	SARA Status	COSEWIC Assessment Status and Report (Date Last Assessed)	Recovery Potential Assessment	SARA Recovery Documents	Other Select CSAS Publications	Species Description	Limiting Factors and/or Primary Threats in Atlantic Canadian Waters
						specific latitudes. The densest concentrations occur between 150 and 550 m. High natural mortality may be a source of decline in some areas.	
Winter Skate (Eastern Scotian Shelf - Newfoundland population)	No Status	Endangered (5/1/2015)	2017/014	—	2025/017	A demersal (bottom-dwelling) fish species that occupies a broad range in the Northwest Atlantic and are found from the northern Gulf of St. Lawrence and Southern Newfoundland to Cape Hatteras, North Carolina. In Canadian waters, they are concentrated in three areas: the Gulf of St. Lawrence, Eastern Scotian Shelf/Southern Newfoundland, and the Western Scotian Shelf/Bay of Fundy/Canadian portion of Georges Bank. They have late maturity and low rates of reproduction.	Limiting factors and primary threats include discards and bycatch, seal predation, and marine ecosystem changes. The species is not subject to a targeted fishery.
Wolffish, Atlantic	Special Concern	Special Concern (11/25/2012)	—	2020	2014/022 2022/044 2024/010 (SAR) 2024/010 (RD) 2025/017	A demersal (bottom-dwelling) fish that occupies a broad range in Atlantic Canada, from Georges Bank and the Bay of Fundy in the south, northward over the Scotian Shelf, into the Gulf of St. Lawrence, surrounding Newfoundland and Labrador and along the eastern coast of Baffin Island.	Limiting factors and primary threats include fishery bycatch.
Pelagic Fish							
Bluefin Tuna, Atlantic	No Status	Endangered (5/6/2011)	2011/056	—	2020/120 (ICCAT)	A large pelagic species that is highly migratory and found across the Atlantic Ocean. The western Atlantic Bluefin Tuna population feeds during the summer in Atlantic Canadian waters and migrates south during the winter months to the Gulf of Mexico where their spawning, larval, and juvenile rearing habitats are located.	Limiting factors and primary threats include overfishing, overfishing of prey species, changing oceanographic conditions, anthropogenic noise, and hydrocarbon development.
Sharks							
Shark, Basking (Atlantic Population)	No Status	Special Concern (11/27/2009)	—	—	2008/036	A large shark found in waters of Atlantic Canada during summer and fall; often detected near the coast in areas like the Gulf of St. Lawrence, Scotian Shelf, and Bay of Fundy. In offshore areas, they are often found near oceanic fronts where temperatures range between 7 and 16°C.	Limiting factors and primary threats include directed fisheries, bycatch, and vessel strikes.
Shark, Spiny Dogfish (Atlantic Population)	No Status	Special Concern (4/1/2010)	—	—	2020/001	A small shark that is widely distributed year-round in Atlantic Canadian waters; particularly in the Bay of Fundy and along the Scotian Shelf, moving inshore in summer and offshore in winter. They are often found in waters between 5 and 15°C.	Limiting factors and primary threats include overfishing and bioaccumulation of toxins.
Shark, Porbeagle	No Status	Endangered (5/1/2014)	2015/048	—	2024/042	A large shark that occurs from Georges Bank and the Bay of Fundy to the Gulf of St. Lawrence, including on the Scotian Shelf. They prefer cool waters between 5 and 10ºC. Immature sharks reside on the Scotian Shelf, with mature sharks migrating along the shelf toward the Grand Banks in spring.	Limiting factors and primary threats include directed fisheries, bycatch, anthropogenic noise, marine pollution, spills from hydrocarbon development, and other large scale marine development, such as pipelines and submarine cables.
Shark, Shortfin Mako	No Status	Endangered (5/3/2019)	2021/050	—	—	A large shark detected around the continental shelf of Nova Scotia, Georges Bank, and Browns Bank in warm (17–22 ºC) offshore waters in summer and fall. They are also detected in the Gulf of St. Lawrence, where they are present in greatest abundance from June to December.	Limiting factors and primary threats include directed fisheries, bycatch, underwater noise, marine pollution, ocean acidification, and climate change

Species	SARA Status	COSEWIC Assessment Status and Report (Date Last Assessed)	Recovery Potential Assessment	SARA Recovery Documents	Other Select CSAS Publications	Species Description	Limiting Factors and/or Primary Threats in Atlantic Canadian Waters
Shark, White (Atlantic population)	Endangered	Endangered (4/1/2021)	2005/052	RS (2025)	2017/025	A large shark that is found throughout Atlantic Canada. They are seasonally detected mainly in summer and fall, although there are documented occurrences in winter, within coastal and pelagic (offshore) waters that range between 14 and 25°C.	Limiting factors to the species in Atlantic Canadian waters includes naturally low abundance, low reproductive capacity, slow growth, and late maturation. The primary threat to the species is fishing interactions.
Sea Turtles							
Turtle, Leatherback (Atlantic population)	Endangered	Endangered (12/3/2022)	2020/039 2022/004	RS (2007) AP (2020)	2020/041	The largest of the marine turtles; abundant on the Scotian Shelf in nearshore and offshore waters from June through October; forage on jellyfish. Important habitat for Leatherback Sea Turtle on the Scotian Shelf includes waters off of eastern Cape Breton Island, including Sydney Bight, the Cabot Strait, and adjacent portions of the Laurentian Channel.	Limiting factors and primary threats include bycatch, entanglement in ghost gear, underwater noise, marine pollution, vessels strikes, and climate change (i.e., variables that negatively affect food availability, disrupt migration, or otherwise make Leatherback habitat unsuitable could threaten the function of this habitat).
Turtle, Loggerhead	Endangered	Endangered (4/25/2010)	2010/042	RS (2020)	2017/014	A hard-shelled marine turtle regularly found in Atlantic Canadian waters on and off the continental shelf in spring through fall. Loggerheads are commonly reported on the Scotian Shelf, Northeast Channel, Georges Bank, and the Grand Banks. Habitat use is influenced by ambient ocean temperature, turtle size, and behaviour.	Limiting factors and primary threats include bycatch, vessel strikes, pollution, ingestion of marine debris, entanglement, noise and light from offshore activities, and climate change.
Marine Mammals							
Whale, Blue (Atlantic)	Endangered	Endangered (5/4/2012)	—	RS (2009) AP (2020)	2016/078 2016/080 2018/007	A large baleen whale found throughout Atlantic Canadian waters. They are present on the Scotian Shelf and Slope and in the Laurentian Channel throughout the year. They inhabit coastal and open ocean water and are frequently observed in areas that have a high krill abundance (their primary food source). The entirety of the Scotian Shelf edge, including areas that overlap with the Sable Island Bank WEA, has been identified as important foraging habitat for this species (among other areas off eastern Canada).	Limiting factors and primary threats include anthropogenic noise, climate change, contaminants, vessel strikes, whale watching, entanglement in fishing gear, toxic algal blooms, and toxic spills.
Whale, Fin (Atlantic)	Special Concern	Special Concern (5/3/2019)	—	MP (2017)	—	A large baleen whale found throughout Atlantic Canadian waters. They are present off Atlantic Canada throughout the year and are commonly detected throughout the Scotian Shelf and Slope, as well as in the Laurentian Channel region.	Limiting factors and primary threats include reduced prey availability, chemical pollution, fishery interactions, vessel strikes, acoustic disturbance, and whaling.
Whale, Killer (Northwest Atlantic / Eastern Arctic population)	No Status	Special Concern (12/1/2023)	—	—	2007/062	A large dolphin that is most commonly observed off Newfoundland and Labrador, although sightings are reported further south including in the Laurentian Channel area, on the Scotian Shelf, and in the Bay of Fundy.	Limiting factors and primary threats include natural mortality, dietary limitations, contaminants, acoustic disturbance, oil spills, vessel strikes/disturbance, and fishery interactions.
Whale, North Atlantic Right	Endangered	Endangered (11/1/2013)	2025/078	RS (2014) AP (2021)	2019/028 2020/037 2024/039 2024/040 2024/046 2024/059 2024/077 2025/009 2025/018	A large whale that is primarily distributed in the lower temperate and subtropical waters of the western North Atlantic in winter and migrate northward into temperate waters in the summer. The species range extends from the southern calving grounds off South Carolina, Georgia, and northeastern Florida, to their more northern feedings grounds in the Bay of Fundy, Scotian Shelf, and the Gulf of St. Lawrence. Occasional sightings have also been reported in Bermuda and the Caribbean to the south, and in	Primary threats to the species in Atlantic Canadian waters are entanglement in fishing gear and vessel strikes, with an emerging potential threat being offshore wind development. In general, threats to the species include incidental catch and fishing gear interactions, vessel traffic (including vessel strikes, presence, and associated noise pollution), pollution (including ocean noise and spills), changing ocean-physics (due to climate change), scientific activities, harvesting, and food supply resource depletion.

Species	SARA Status	COSEWIC Assessment Status and Report (Date Last Assessed)	Recovery Potential Assessment	SARA Recovery Documents	Other Select CSAS Publications	Species Description	Limiting Factors and/or Primary Threats in Atlantic Canadian Waters
					2025/049 2025/058 2025/059 2025/077	the coastal waters around Newfoundland and Labrador, the Davis Strait and Iceland to the north, as well as off Norway and the Azores.	Wind energy production (with a focus on the development and operation phases) in the offshore is identified as a potential threat to the endangered North Atlantic right whale. The development and construction phases of wind farms are associated with a number of threats to North Atlantic Right Whales that include pollution from pile driving and seismic surveys, increased vessel operations, and pollution from chemical contaminants released from the sediments. Operational activities of wind energy production may also result in changes in vessel traffic patterns and the associated threats. The threat of noise pollution from wind energy production is expected to be low at an individual level of impact. Indirect effects of offshore wind farms may have a greater impact on North Atlantic Right Whale than direct effects. Given wind is a relatively new ocean industry in the offshore of eastern North America, it is difficult to evaluate potential direct and indirect impacts at individual or population levels.
Whale, Northern Bottlenose (Scotian Shelf population)	Endangered	Endangered (11/28/2024)	2011/031	RS (2016) AP (2017)	2020/008 2024/054	A medium-sized beaked whale that resides year-round in deep waters off the Eastern Scotian shelf-break, including in submarine canyons of the Eastern Scotian Shelf. Zone 1 of the Gully Marine Protected Area , Shortland Canyon, and Haldimand Canyon have been identified as Critical Habitat for this population, while the entirety of the Scotian Slope and edge of the Grand Banks and shelf break off Newfoundland have been identified as important habitat for these whales.	Limiting factors and primary threats include climate change, historical whaling, acoustic disturbance (e.g., sonar, vessels, seismic, etc.), fisheries interactions, vessel strikes, pollution, and marine contaminants.
Whale, Sei (Atlantic Population)	No Status	Endangered (5/3/2019)	—	—	2024/024	A large baleen whale found throughout Atlantic Canadian waters. They are present off Atlantic Canada throughout the year and are detected all throughout the Scotian Shelf and Slope, as well as in the Laurentian Channel region	Limiting factors and primary threats include noise, oil and gas activities, maritime shipping, fishery interactions, military exercises, and offshore energy (e.g., wind and tidal).
Whale, Sowerby's Beaked	Special Concern	Special Concern (5/3/2019)	—	MP (2017)	—	A small beaked whale that resides year-round in deep waters (generally greater than 500 m depth) off Nova Scotia and Newfoundland, including in submarine canyons of the Eastern Scotian Slope.	Limiting factors and primary threats include low reproductive rate, mass standings, acoustic disturbance, seismic activity, other intense underwater sounds, and marine bioaccumulation in blubber.
Harbour Porpoise (Northwest Atlantic population)	No Status	Special Concern (05/11/2022)	—	—	—	A small porpoise species that is widely distributed in coastal waters and across continental shelf waters, including on the Scotian Shelf and in the Laurentian Channel throughout the year. They prefer cooler waters (less than 16 °C).	Limiting factors and primary threats include bycatch in fishing gear. The magnitude of this threat has diminished since the 1990s due to the depletion of groundfish stocks and consequent reductions in fishing effort.

Table A3. Fisheries with a proportion of total landings equal to or greater than 1% (by licensed fishery management unit) occurring within a Wind Energy Area (WEA), based on aggregated total fishery landings (2012–2023). See Figures 6-9 for representation of landings in relation to each WEA; note that the aggregated landings in Figures 6-9 are based on landings data from 2012–2023 with the exception of exploratory Whelk that is based on landings from 2019–2023. (—) = no information; CC = communal commercial; CHP = Conservation Harvest Plan; CFA = Crab Fishing Area; IFMP = Integrated Fishery Management Plan; LFA = Lobster Fishing Area; NAFO = Northwest Atlantic Fishery Organization; SFA = Scallop Fishing Area; SFA = Shrimp Fishing Area. Note that PC refers to 'privacy considerations' whereby the number of active licence holders is less than five, so percentage values cannot be reported publicly for these fisheries pursuant to the *Privacy Act*. In contrast, although NAFO 4W Whelk has limited licence holders it can be reported on publicly given it is an exploratory fishery (and not a commercial fishery).

Fish Stock	Licenced Fishery Management Unit	No. of Licences [1] (No. of CC Licences)	Description of Fishing Gear and Fishing Practice	Stock Status (2023)	Regulated Season [2]	IFMP / CHP	Stock Assessment or Other Science	Stock Update	Portion of Aggregated Total Fishery Landings (2012-2023) Reported from within WEA (%)
French Bank WEA									
Hagfish	NAFO 4W (Midshore)	6 (1)	Targeted using barrels equipped with minimum-sized escape holes.	Uncertain	Apr. 15–Oct. 15	Hagfish CHP	—	2018/048	10.9
Snow Crab	CFA 24 (East)	52 (14)	Targeted using large (6-7') conical or rectangular baited traps that sit on the seabed.	Healthy	Mar. 15–Aug. 31	ENS and 4X Snow Crab IFMP	2024/062	2022/036	1.9
Atlantic Halibut	NAFO 4VsW	555 (2)	Targeted using longline or handline.	Healthy	Apr. 1–Mar. 31	4VWX5 Groundfish IFMP	2024/009	2025/008	1.7
American Lobster	LFA 31B and LFA 32	70 (0)	Targeted using individual Lobster traps in trawls (or strings) up to 10–15 traps that are anchored to the seabed.	Healthy	Apr. 19–June 20	Lobster LFAs 27-38 IFMP	2020/026	2023/014	Undetermined; see text above
Middle Bank WEA									
Sea Cucumber	NAFO 4W (Midshore)	1 (0)	Targeted using a modified scallop drag.	Uncertain	May 1–Mar. 31	Sea Cucumber CHP	2021/007	—	PC
Whelk (Exploratory) [3]	NAFO 4W	2 (0)	Targeted using conical traps that sit on the seabed, deployed on a string approximately 20 fathoms from one another.	Healthy	June 1–Dec. 31	—	2022/043	—	95.9
Sea Scallop	SFA 25	5 (0)	Targeted using steel scallop drags, up to 2–3, towed along the seabed that range from 12–17' in width.	Uncertain	Jan. 1–Dec. 31	Offshore Scallop IFMP	2025/066	—	12.5
Snow Crab	CFA 24 East	52 (14)	Targeted using large (6-7') conical or rectangular baited traps that sit on the seabed.	Healthy	Mar. 15–Aug. 31	ENS and 4X Snow Crab IFMP	2024/062	2022/036	5.5
Northern Shrimp	SFA 13-15 (Mobile)	42 [4] (14)	Targeted using mobile bottom trawl equipped with a Nordmøre separator grate.	Cautious	Jan. 1–Dec. 31	ESS Northern Shrimp IFMP	2022/033	2024/012	1.0
Sable Island Bank WEA									
Sea Cucumber	NAFO 4W Offshore	1 (0)	Targeted using a modified scallop drag.	Uncertain	May 1–Mar. 31	Sea Cucumber CHP	2021/007	—	PC
Sea Scallop	SFA 25	5 (0)	Targeted using steel scallop drags, up to 2–3, towed along the seabed that range from 12–17' in width.	Uncertain	Jan. 1–Dec. 31	Offshore Scallop IFMP	— [4]	—	3.3

Fish Stock	Licenced Fishery Management Unit	No. of Licences [1] (No. of CC Licences)	Description of Fishing Gear and Fishing Practice	Stock Status (2023)	Regulated Season [2]	IFMP / CHP	Stock Assessment or Other Science	Stock Update	Portion of Aggregated Total Fishery Landings (2012-2023) Reported from within WEA (%)
Whelk (Exploratory) [3]	NAFO 4W	2 (0)	Targeted using conical traps that sit on the seabed, deployed on a string approximately 20 fathoms from one another.	Healthy	June 1–Dec. 31	—	2022/043	—	1.1
Sydney Bight WEA									
Snow Crab	CFA 20-22	78 (0)	Targeted using large (6-7') conical or rectangular baited traps that sit on the seabed.	Healthy / Cautious [5]	Apr. 10–Aug. 18	ENS and 4X Snow Crab IFMP	2024/062	2022/036	2.8
Atlantic Halibut	NAFO 4Vn	457 (6)	A combination of fixed gear and mobile gear by fleet sector.	Healthy	Apr. 1–Mar. 31	4VWX5 Groundfish IFMP	2024/009	2025/008	1.5
Hagfish	NAFO 4Vn	3 (1)	Targeted using barrels equipped with minimum-sized escape holes.	Uncertain	Apr. 15–Oct. 15	Hagfish CHP	—	2018/048	1.4
American Lobster	LFA 27	477 (19)	Targeted using individual Lobster traps in deployed as single traps, strings of more than one trap, or both. Average trawl length is 3.7 traps that are anchored to the seabed.	Healthy	May 15–Jul. 15	Lobster LFAs 27-38 IFMP	2020/026	2023/014	Undetermined; see text above

[1] Commercial fishery licences may be held by Indigenous-based fishery interests, which are different than communal commercial fishery licences.

[2] Many fisheries have shorter, active fishing periods within the regulated season that are often defined by market conditions or Total Allowable Catch rates, so the timing of active fishing periods may change year-over-year.

[3] The Whelk fishery is considered to be an exploratory fishery (not a commercial fishery) but is included here due to its overlap with the Middle Bank WEA and Sable Island Bank WEA.

[4] Northern Shrimp fishery consists of 42 mobile licences, 28 of which are DFO Maritimes Region-based mobile licences (primarily less than 65 ft length overall) and 14 of which are DFO Gulf Region-based mobile licences (65-100 ft length overall).

[5] In 2024, the N-ENS (CFA 20-22) snow crab stock was in the Cautious zone (see: Maritimes Region Snow Crab Stock Assessment for 2024).

APPENDIX B: LIST OF AVAILABLE DATASETS

The following list of DFO geospatial datasets align with the Eastern Scotian Shelf area and may be applicable to any future offshore wind development planning both in the offshore and inwards to the coast of Nova Scotia. The following list only includes DFO datasets that are currently published on the Government of Canada Open Data information portal. The following list does not include all available DFO data, some of which is not currently posted publicly, nor be representative of the most up-to-date datasets found on the Open Data portal.

No.	Theme	Dataset Title and Open Data Link	Dataset Description
Administrative Boundaries			
1	Administrative Boundaries	Federal Marine Bioregions	Boundaries of 13 ecologically defined bioregions that cover Canada's oceans and the Great Lakes.
2	Administrative Boundaries	Eastern Canada Marine Spatial Planning Areas	Three marine spatial planning areas are delineated in Eastern Canada to define the spatial extents of marine spatial plans being led by DFO.
3	Administrative Boundaries	NAFO Divisions and Subdivisions	Northwest Atlantic Fisheries Organization (NAFO) subareas, divisions, and sub-divisions.
4	Administrative Boundaries	Marine Protected Areas	Oceans Act Marine Protected Area (MPA) boundaries.
5	Administrative Boundaries	Oceans Act Areas of Interest	Area of Interest (AOI) that marks the beginning of the Oceans Act Marine Protected Area (MPA) establishment process.
6	Administrative Boundaries	Other Effective Area-Based Conservation Measures	Area-based management measures that have been recognized as 'other effective area-based conservation measures'..
7	Administrative Boundaries	Critical Habitat	Species at Risk Act Critical Habitat (CH) for aquatic at-risk species.
8	Administrative Boundaries	Canada Coast Guard Regions	Four administrative regions in Canadian Coast Guard regions: Western; Arctic; Central; and Atlantic.
9	Administrative Boundaries	Oceans Protection Plan Regional Response Planning Extents	Spatial boundaries for the Port Hawkesbury and Saint John pilot areas within the Oceans Protection Plan (OPP) Area Response Plan (ARP) project.
10	Administrative Boundaries	Small Craft Harbours Locations and Information	Map of harbours critical to fishing and aquaculture industries managed by harbour authorities (Core fishing harbours), harbours that support fishing and aquaculture industries that aren't managed by harbour authorities (Non-core fishing harbours), and harbours that support the recreational community (Recreational harbours).
Oceanography, Surficial Geology, and Ecosystem			

No.	Theme	Dataset Title and Open Data Link	Dataset Description
11	Oceanography, Surficial Geology, and Ecosystem	Fetch and relative wave exposure indices for the coastal zones of the Scotian Shelf-Bay of Fundy and Newfoundland-Labrador Shelves bioregions	Two measures of fetch (unweighted fetch, effective fetch) and three fetch-derived indices of wave exposure (sum fetch, minimum fetch, and a relative exposure index) covering the coastal zones of the Scotian Shelf-Bay of Fundy and Newfoundland-Labrador Shelves bioregions.
12	Oceanography, Surficial Geology, and Ecosystem	Fetch and relative wave exposure indices for the coastal zone of the Scotian Shelf-Bay of Fundy bioregion	Relative exposure index (REI) for wind-driven waves covering the coastal zone of the Scotian Shelf-Bay of Fundy bioregion.
13	Oceanography, Surficial Geology, and Ecosystem	A climate risk index for marine life across the Canadian exclusive economic zone	A climate risk index for marine life across the Canadian exclusive economic zone.
14	Oceanography, Surficial Geology, and Ecosystem	A substrate classification for the Inshore Scotian Shelf and Bay of Fundy, Maritimes Region	A coastal surficial substrate layer for the coastal Scotian Shelf and Bay of Fundy.
15	Oceanography, Surficial Geology, and Ecosystem	BioChem: SAHFOS continuous plankton recorder E and Z lines - Maritimes	Plankton (i.e., zooplankton and large phytoplankton) are collected using the Continuous Plankton Recorder (CPR) in the Northwest Atlantic along tracks transited by container ships.
16	Oceanography, Surficial Geology, and Ecosystem	Canadian Extreme Water Level Adaptation Tool (CAN-EWLAT)	A science-based planning tool for climate change adaptation of coastal infrastructure related to future water-level extremes and changes in wave climate.
17	Oceanography, Surficial Geology, and Ecosystem	Vertical allowance gridded dataset for Canada	The vertical allowance is the recommended height that the infrastructure needs to be raised in future years relative to year 2010. The vertical allowance depends on (1) statistics of historical storm surge and tides, and (2) the best estimate and associated uncertainty of future sea level rise.
18	Oceanography, Surficial Geology, and Ecosystem	Chemical and Biological Oceanographic Conditions on the Scotian Shelf and in the Eastern Gulf of Maine during 2023	Nutrient and plankton metrics assessed in the context of physical conditions observed in the Maritimes region in 2023.
19	Oceanography, Surficial Geology, and Ecosystem	Coastal Environmental Exposure Layer	A climate change adaptation tool that supports management decisions regarding the long-term infrastructure planning for DFO small craft harbour sites.
20	Oceanography, Surficial Geology, and Ecosystem	Future hydrographic state of the Scotian Shelf and Gulf of Maine from 23 CMIP6 Models	Data from the analysis of sea surface temperature, sea surface salinity, bottom temperature, and bottom salinity, over the Gulf of Maine and Scotian Shelf.
20	Oceanography, Surficial Geology, and Ecosystem	Characteristics of Environmental Data Layers for Use in Species Distribution Modelling in the Maritimes Region	Physical and chemical variables obtained from a broad range of physical and biological data sources and spatially interpolated using geostatistical methods to support Species Distribution Models (SDM).

No.	Theme	Dataset Title and Open Data Link	Dataset Description
21	Oceanography, Surficial Geology, and Ecosystem	Maritime region grainsize data	Sediment grain size data from sediment and water column samples using bottle samples, sediment cores, and sediment grabs from various research projects in the Atlantic provinces and some projects worldwide.
22	Oceanography, Surficial Geology, and Ecosystem	Maritimes Region Atlantic Zone Monitoring Program 1991 to 2020 Hydrographic Transect Climatology	Hydrographic 1991 to 2020 climatology for the DFO Maritimes Region Atlantic Zone Monitoring Program core transects lines that support annual reporting on seasonal variability.
23	Oceanography, Surficial Geology, and Ecosystem	Monthly Currents Climatology of the Northwest Atlantic Ocean from BNAM model (1990-2015)	Monthly mean currents from North Atlantic Model (BNAM) results averaged over 1990 to 2015 to create monthly mean climatology for the Northwest Atlantic Ocean.
24	Oceanography, Surficial Geology, and Ecosystem	Monthly Salinity Climatology of the Northwest Atlantic Ocean from BNAM model (1990-2015)	Monthly mean salinity from North Atlantic Model (BNAM) results averaged over 1990 to 2015 to create monthly mean climatology for the Northwest Atlantic Ocean.
25	Oceanography, Surficial Geology, and Ecosystem	Monthly Temperature Climatology of the Northwest Atlantic Ocean from BNAM model (1990-2015)	Monthly mean temperature from North Atlantic Model (BNAM) results averaged over 1990 to 2015 to create monthly mean climatology for the Northwest Atlantic Ocean.
26	Oceanography, Surficial Geology, and Ecosystem	Near-seafloor drift transect video imagery and high-resolution digital still images from a two-year survey in support of Marine Protected Area monitoring of St. Anns Bank, Atlantic Canada	Two-year optical imagery benthic survey captured 41 drift-camera transects in the St. Anns Bank Marine Protected Area (MPA) and four coastal transects west of the MPA.
27	Oceanography, Surficial Geology, and Ecosystem	Ocean Data Inventory	An inventory of all of the oceanographic time series data held by the DFO Ocean Science Division located at the Bedford Institute of Oceanography, Dartmouth, NS.
28	Oceanography, Surficial Geology, and Ecosystem	Upwelling indices derived from GLORYS12 Model and ERA5 surface wind on the Scotian Shelf during 1993-2022	Estimates of wind-driven upwelling of colder water on the Scotian Shelf along the Nova Scotia coastline from 1993 to 2022.
29	Oceanography, Surficial Geology, and Ecosystem	Ecological Production Units	Ecological Production Units (EPU) that consist of a combination of ecoregions that represent elements with different physical and biological characteristics.
30	Oceanography, Surficial Geology, and Ecosystem	Estimates of anthropogenic nitrogen loading and eutrophication indicators for the Bay of Fundy and Scotian Shelf	Estimates of anthropogenic nitrogen loading and eutrophication indicators for the Bay of Fundy and Scotian Shelf.
31	Oceanography, Surficial Geology, and Ecosystem	Calanus spp. size and lipid content metrics in North Atlantic, 1977-2019	Zooplankton *Calanus* species size and lipid content metrics in North Atlantic, 1977-2019.

No.	Theme	Dataset Title and Open Data Link	Dataset Description
32	Oceanography, Surficial Geology, and Ecosystem	Past and Future Sea Surface Temperature Changes in the Oceans Surrounding Canada	This study presents changes in the sea surface temperature (SST) in the oceans surrounding Canada using past observations and model projections of future scenarios. The past changes are derived using an SST product, HadISST, in which a recent period (2012-2022) was referenced to a 26-year climatology (1955-1980).
Ecologically and Biologically Important Areas, Species			
33	Ecologically and Biologically Important Areas and Species	Ecologically and Biologically Significant Areas	Ecologically and Biologically Significant Areas (EBSAs) identified through formal scientific assessments as having special biological or ecological significance when compared with the surrounding marine ecosystem.
34	Ecologically and Biologically Important Areas	Significant Benthic Areas	Significant Benthic Areas (SiBA) defined as significant areas of cold-water corals and sponge dominated communities.
35	Ecologically and Biologically Important Areas	Delineating Coral and Sponge Concentrations in the Biogeographic Regions of the East Coast of Canada Using Spatial Analyses	Concentrations of sea pens, small and large gorgonian corals, and sponges on the east coast of Canada identified through spatial analysis of research vessel survey bycatch data.
36	Ecologically and Biologically Important Areas	Delineation of Coral and Sponge Significant Benthic Areas in Eastern Canada (2016)	Maps of the location of significant concentrations of corals and sponges on the east coast of Canada produced through quantitative analyses of research vessel trawl survey data, supplemented with other data sources where available.
37	Ecologically and Biologically Important Areas	Kernel Density Analyses of Coral and Sponge Catches from Research Vessel Survey Data (2016)	Kernel density analyses of coral and sponge catches from research vessel survey data (2016).
38	Ecologically and Biologically Important Areas	Large Gorgonian Coral Fields in the Scotian Shelf (Western IIA Trawl Sample)	Large gorgonian coral fields in the Scotian Shelf (Western IIA Trawl Sample).
39	Ecologically and Biologically Important Areas	Sea Pen Fields in the Scotian Shelf (Western IIA Trawl Sample)	Sea pen fields in the Scotian Shelf (Western IIA Trawl Sample).
40	Ecologically and Biologically Important Areas	Sponge Fields in the Scotian Shelf (Western IIA Trawl Sample)	Sponge fields in the Scotian Shelf (Western IIA Trawl Sample).
41	Ecologically and Biologically Important Areas	Glass sponge grounds on the Scotian Shelf and their associated biodiversity	Glass sponge grounds on the Scotian Shelf and their associated biodiversity.
42	Ecologically and Biologically Important Areas	Predicted distribution of the glass sponge Vazella pourtalesi on the Scotian Shelf and its persistence in the face of climatic variability	Predicted distribution of the glass sponge *Vazella pourtalesi* on the Scotian Shelf and its persistence in the face of climatic variability.

No.	Theme	Dataset Title and Open Data Link	Dataset Description
43	Ecologically and Biologically Important Areas	Species Distribution Modelling of Corals and Sponges in the Maritimes Region for Use in the Identification of Significant Benthic Areas	Species Distribution Modelling (SMD) of corals and sponges in the DFO Maritimes Region for use in the identification of Significant Benthic Areas.
44	Ecologically and Biologically Important Areas	Sponge occurrence and associated species and habitat descriptions derived from the 2021 and 2022 SCUBA diving surveys in the Eastern Shore Islands Area of Interest, Nova Scotia	Sponge occurrence and associated species and habitat descriptions derived from the 2021 and 2022 SCUBA diving surveys in the Eastern Shore Islands Area of Interest, Nova Scotia.
45	Ecologically and Biologically Important Areas	Offshore Ecological and Human Use Information Considered in Marine Protected Area Network Design in the Scotian Shelf Bioregion	Offshore ecological and human use information considered in Marine Protected Area network design in the Scotian Shelf bioregion.
46	Ecologically and Biologically Important Areas	Marine Conservation Targets (MCT) - Camera Surveys of the Subtidal Flora of Nova Scotia and Southwest New Brunswick 2022-2023	Distribution of sub-tidal kelp beds and other macroalgae in Nova Scotia and Southwest New Brunswick from drop camera survey performed from 2022 to 2023 at 140 sites.
47	Ecologically and Biologically Important Areas	Maritimes Regional Application of the National Framework for Assessing the Vulnerability of Biological Components to Ship-Source Oil Spills in the Marine Environment	DFO Maritimes regional application of the national framework for assessing the vulnerability of biological components to ship-source oil spills in the marine environment.
At-risk and Depleted Species			
48	At Risk and Depleted Species	Fisheries and Oceans Canada Species at Risk Distribution (Range)	Spatial database that identifies areas in which aquatic species listed under the SARA may be found. Distribution and range information are identified for species listed as Endangered, Threatened or Special Concern under SARA.
49	At Risk and Depleted Species	The fate of intracoelomic acoustic transmitters in Atlantic Salmon (*Salmo salar*) post-smolts and wider considerations for causal factors driving tag retention and mortality in fishes	The fate of intracoelomic acoustic transmitters in Atlantic Salmon (*Salmo salar*) post-smolts and wider considerations for causal factors driving tag retention and mortality in fishes
50	At Risk and Depleted Species	Salmon Rivers Presence, Maritimes Region	Salmon river presence in the Bay of Fundy and Port Hawkesbury Area Response Plan Regions.
51	At Risk and Depleted Species	Identifying priority areas to enhance monitoring of cetaceans in the Northwest Atlantic Ocean	Species Distribution Models (SDM) were used to predict and identify priority areas for enhanced monitoring of cetaceans in eastern Canadian waters off Nova Scotia, Newfoundland and Labrador.
52	At Risk and Depleted Species	Marine mammal records collected by the At-Sea Observer program in Arctic, Newfoundland and Labrador and Maritimes regions	Marine mammal records collected by the At-Sea Observer program in Arctic, Newfoundland and Labrador and Maritimes regions

No.	Theme	Dataset Title and Open Data Link	Dataset Description
53	At Risk and Depleted Species	Northern bottlenose whale important habitat in inter-canyon areas on the Eastern Scotian Shelf	Northern Bottlenose Whale important habitat in inter-canyon areas on the Eastern Scotian Shelf
54	At Risk and Depleted Species	Important Areas for Blue Whale	DFO modeling analysis that identified areas as the most suitable habitat for Blue whales: Gulf of St. Lawrence, waters off the southern coast of Newfoundland, the region of Mecatina Trough, the Esquiman Channel and the continental shelf margin off Nova Scotia.
55	At Risk and Depleted Species	Pelagic Shark Satellite Tag data - Basking Shark	Pelagic shark satellite tag data for Basking Shark.
56	At Risk and Depleted Species	Pelagic Shark Satellite Tag data - Blue Shark	Pelagic shark satellite tag data for Blue Shark.
57	At Risk and Depleted Species	Pelagic Shark Satellite Tag data - Mako Shark	Pelagic shark satellite tag data for Mako Shark.
58	At Risk and Depleted Species	Pelagic Shark Satellite Tag data - Porbeagle	Pelagic shark satellite tag data for Porbeagle.
59	At Risk and Depleted Species	Pelagic Shark Satellite Tag data - Spiny Dogfish	Pelagic shark satellite tag data for Spiny Dogfish.
60	At Risk and Depleted Species	Pelagic Shark Satellite Tag data - White Shark	Pelagic shark satellite tag data for White Shark.
61	At Risk and Depleted Species	White Shark (Carcharodon carcharias) sightings in Atlantic Canada (1873 to 2022)	White Shark (Carcharodon carcharias) sightings in Atlantic Canada (1873 to 2022).
62	At Risk and Depleted Species	Recreational Shark & Dart Tag Database	Recreational Shark Fishing Tournament landings records include biological sampling from 4266 animals and the dart tag records include 4138 tagging and 97 recapture events.
63	At Risk and Depleted Species	Likelihood of Presence of Atlantic Cod in Area Response Planning Pilot Areas	Likelihood of presence of Atlantic Cod in the Bay of Fundy and Port Hawkesbury Area Response Plan Regions.
64	At Risk and Depleted Species	Likelihood of Presence of Atlantic Salmon in Area Response Planning Pilot Areas	Likelihood of presence of Atlantic Salmon in the Bay of Fundy and Port Hawkesbury Area Response Plan Regions.
65	At Risk and Depleted Species	Likelihood of Presence of Bluefin Tuna in Area Response Planning Pilot Areas	Likelihood of presence of Bluefin Tuna in the Bay of Fundy and Port Hawkesbury Area Response Plan Regions.
66	At Risk and Depleted Species	Likelihood of Presence of North Atlantic Right Whales in Area Response Planning Pilot Areas	Likelihood of presence of North Atlantic Right Whale in the Bay of Fundy and Port Hawkesbury Area Response Plan Regions.

No.	Theme	Dataset Title and Open Data Link	Dataset Description
67	At Risk and Depleted Species	Likelihood of Presence of Bottlenose Whales in Area Response Planning Pilot Areas	Likelihood of presence of Northern Bottlenose Whales in the Bay of Fundy and Port Hawkesbury Area Response Plan Regions.
68	At Risk and Depleted Species	Likelihood of Presence of Finback whales in Area Response Planning Pilot Areas	Likelihood of presence of Finback Whales in the Bay of Fundy and Port Hawkesbury Area Response Plan Regions.
69	At Risk and Depleted Species	Likelihood of Presence of Grey Seal in Area Response Planning Pilot Areas.	Likelihood of presence of Grey Seal in the Bay of Fundy and Port Hawkesbury Area Response Plan Regions.
70	At Risk and Depleted Species	Likelihood of Presence of Harbour Porpoises in Area Response Planning Pilot Areas	Likelihood of presence of Harbour Porpoise in the Bay of Fundy and Port Hawkesbury Area Response Plan Regions.
71	At Risk and Depleted Species	Likelihood of Presence of Harbour Seals in Area Response Planning Pilot Areas	Likelihood of presence of Harbour Seals in the Bay of Fundy and Port Hawkesbury Area Response Plan Regions.
Fish and Fish Habitat			
72	Fish and Fish Habitat	Maritimes Spring Research Vessel Survey	DFO Maritimes Region spring research vessel survey data.
73	Fish and Fish Habitat	Maritimes Summer Research Vessel Survey	DFO Maritimes Region summer research vessel survey data.
74	Fish and Fish Habitat	Maritimes Fall Research Vessel Survey	DFO Maritimes Region fall research vessel survey data.
75	Fish and Fish Habitat	Maritimes 4VsW Research Vessel Survey	DFO Maritimes Region 4VsW research vessel survey data.
76	Fish and Fish Habitat	Demersal fish and benthic invertebrate assemblages in the Northwest Atlantic	Demersal fish and benthic invertebrate assemblages in the Northwest Atlantic.
77	Fish and Fish Habitat	eDNA metabarcoding enriches traditional trawl survey data for monitoring biodiversity in the marine environment	eDNA metabarcoding enriches traditional trawl survey data for monitoring biodiversity in the marine environment.
78	Fish and Fish Habitat	A Soft-Shelled Clam (Mya arenaria) Habitat Suitability Model for the DFO Maritimes Region	Habitat suitability of soft-shelled clams (*Mya arenaria*) in the DFO Maritimes region, and was developed using an interdepartmental approach.
79	Fish and Fish Habitat	Bay Scale Assessment of Eelgrass Beds Using Sidescan and Video - Halifax Harbour	Bay scale assessment of eelgrass beds using sidescan and video in Halifax Harbour.

No.	Theme	Dataset Title and Open Data Link	Dataset Description
80	Fish and Fish Habitat	** Bay Scale Assessment of Habitat in Canso 2008	Bay scale assessment of habitat in Canso.
81	Fish and Fish Habitat	Benthic invertebrates in seagrass and bare soft sediments in Atlantic Nova Scotia	Benthic invertebrates in seagrass and bare soft sediments in Atlantic Nova Scotia.
82	Fish and Fish Habitat	Data of eelgrass (*Zostera marina*) plant size (length, width), cover, and biomass from the Atlantic Coast of Nova Scotia	Data of eelgrass (*Zostera marina*) plant size (length, width), cover, and biomass from the Atlantic Coast of Nova Scotia.
83	Fish and Fish Habitat	Data of eelgrass (*Zostera marina*) traits from the Atlantic Coast of Nova Scotia	Data of eelgrass (*Zostera marina*) traits from the Atlantic Coast of Nova Scotia.
84	Fish and Fish Habitat	Eelgrass (*Zostera marina*) study in the historical goldmining region of Goldboro, Nova Scotia (2020)	Eelgrass (*Zostera marina*) study in the historical goldmining region of Goldboro, Nova Scotia (2020).
85	Fish and Fish Habitat	Likelihood of Presence of American Lobster in Area Response Planning Pilot Areas	Likelihood of presence of American Lobster in the Bay of Fundy and Port Hawkesbury Area Response Plan.
86	Fish and Fish Habitat	Likelihood of Presence of Snow Crab in Area Response Planning Pilot Areas	Likelihood of presence of Snow Crab in the Bay of Fundy and Port Hawkesbury Area Response Plan.
87	Fish and Fish Habitat	Likelihood of Presence of Soft Shelled Clams in Area Response Planning Pilot Areas	Likelihood of presence of Soft Shelled Clams in the Bay of Fundy and Port Hawkesbury Area Response Plan.
88	Fish and Fish Habitat	Likelihood of Presence of Grey Seal in Area Response Planning Pilot Areas.	Likelihood of presence of Grey Seal in the Bay of Fundy and Port Hawkesbury Area Response Plan.
89	Fish and Fish Habitat	Likelihood of Presence of Harbour Seals in Area Response Planning Pilot Areas	Likelihood of presence of Harbour Seals in the Bay of Fundy and Port Hawkesbury Area Response Plan.
Fishery			
90	Fishery	Eastern Canada Commercial Fishing	Dataset of species/gear type commercial fisheries from 2012 to 2021 in the Eastern Canada Regions. Only fish harvested from the DFO NL, Maritimes, Gulf, Quebec and Eastern Arctic regions are included.
91	Fishery	Maritimes Region Fisheries Atlas: Catch Weight Landings Mapping (2014-2018)	Data of commercial fisheries catch weight landings of directed fisheries and bycatch from the Scotian Shelf, the Bay of Fundy, and Georges Bank from NAFO Divisions 4VWX and the Canadian portions of 5Y and 5Z. Five-year composite maps (2014–2018) that aggregate catches for each map series are publicly available.
92	Fishery	Maritimes Region Fisheries Atlas: Catch Weight Landings Mapping (2019–2023)	Data if commercial fisheries catch weight landings of directed fisheries and bycatch from the Scotian Shelf, the Bay of Fundy, and Georges Bank from NAFO Divisions 4VWX and the Canadian portions of 5Y and 5Z. Five-year composite maps (2019–2023) that

No.	Theme	Dataset Title and Open Data Link	Dataset Description
			aggregate catches for each map series are publicly available.
93	Fishery	Fishing Effort within Significant Benthic Areas in Canada's Atlantic and Eastern Arctic Marine Waters	Cumulative fishing effort in Canada's Atlantic and Eastern Arctic waters from 2005-2022, and is based on commercial logbook and vessel monitoring system (VMS) data.
94	Fishery	Fecundity of Herring in Divisions 4WX	Fecundity of Atlantic herring (*Clupea harengus*) was estimated within five spawning areas (German Bank, Scots Bay, Seal Island, Southern Shore Nova Scotia, and Eastern Shore Nova Scotia) in Northwest Atlantic Fisheries Organization (NAFO) areas 4WX.
95	Fishery	Mapping Inshore Lobster Landings and Fishing Effort on a Maritimes Region Statistical Grid (2012–2014)	Maps of inshore Lobster landings and fishing effort on a DFO Maritimes Region statistical grid (2012–2014).
96	Fishery	Mapping Inshore Lobster Landings and Fishing Effort on a Maritimes Region Statistical Grid (2015–2019)	Maps of inshore Lobster landings and fishing effort on a DFO Maritimes Region statistical grid (2015–2019).
97	Fishery	Maritimes Region Fisheries Atlas : Catch Weight Landings Mapping (2019-2023) on a Hexagon Grid	This report shows commercial fisheries catch weight landings maps of directed fisheries and bycatch from the Scotian Shelf, the Bay of Fundy, and Georges Bank from NAFO Divisions 4VWX and the Canadian portions of 5Y and 5Z. Five-year composite maps (2019-2023) that aggregate catches for each map series are publicly available and included in this report. Data to be published on Open Data portal as it becomes available.
98	Fishery	Fishermen and Scientist Research Society (FSRS) Lobster Recruitment Trap Project	Fishermen and Scientist Research Society (FSRS) Lobster recruitment trap project results.
99	Fishery	Maps of Gulf Fishing Areas	DFO Gulf region fishery area maps.
100	Fishery	Charting the Course of the Historical Lobster Fishing Districts in the Maritimes Region: 1899-Present	Maps that track inshore historical Lobster fishing district boundaries from 1899 to present.
Aquatic Invasive Species			
101	Aquatic Invasive Species	Canadian Marine Invasive Screening Tool (CMIST)	A screening-level risk assessment tool for marine invasive species.
102	Aquatic Invasive Species	Species distribution models and occurrence data for marine invasive species hotspot identification	Species distribution models and occurrence data for marine invasive species hotspot identification.
103	Aquatic Invasive Species	Updated Species Distribution Models for Marine Invasive Species Hotspot Identification	Monitoring data from DFO invasive species monitoring programs, along with occurrence information from online databases and the scientific literature, have been paired with high resolution environmental data and oceanographic models in species distribution models that predict present-day

No.	Theme	Dataset Title and Open Data Link	Dataset Description
			and project future distributions of 24 non-indigenous species (NIS) on North America`s east coast, and 31 NIS on its west coast.
104	Aquatic Invasive Species	DFO Maritimes Biofouling Monitoring Program	National Biofouling Monitoring Program (BMP) annual field survey results that monitor the introduction, establishment, spread, species richness, and relative abundance of native and non-indigenous species.
Cumulative Effects Assessment			
105	Cumulative Effects Assessment	Maritimes Region Cumulative Human Impact Map	DFO Maritimes Region cumulative human impact maps (CIM) that combine spatial information on human activities and habitats with a matrix of vulnerability weights, into an intuitive relative 'cumulative impact score' that shows where cumulative human impacts are greatest and least.
Other Marine Activities			
106	Other Marine Activities	Vessel Traffic Routes	Vessel routeing measures such as established (mandatory) direction of traffic flow, recommended direction of traffic flow, separation lines, separation zones, etc.
107	Other Marine Activities	Canadian Anchorages and Anchorage Areas	Canadian anchorage areas (ACHARE) and single ship anchorages (ACHBRT).
108	Other Marine Activities	Vessel Density Mapping of 2023 AIS Data in the Northwest Atlantic	The Automatic Identification System (AIS) is a global, satellite-based and terrestrial-based ship tracking system that uses shipborne equipment to remotely track vessel identification and positional information and is typically required on vessels of 300 gross tonnage or more on an international voyage, of 500 gross tonnage or more not on an international voyage, and passenger ships of all sizes.

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January 13, 2026

Submitted Via Offshore Wind Call for Information NS25-1R - Written Feedback - Intellistack
Canada-Nova Scotia Offshore Energy Regulator (CNSOER)

Re: Nature United Comment Letter on CNSOER's Offshore Wind Call for Information NS25-1R

Dear CNSOER,

Please accept Nature United's comments on the CNSOER's Offshore Wind Call for Information NS25-1R, commenced on October 16, 2025. Nature United is the Canadian affiliate of The Nature Conservancy (TNC), the world's largest conservation organization working in 77 countries and all 50 U.S. states (hereinafter referred to as "Nature United's global affiliate-TNC"). Nature United collaborates closely with its affiliate colleagues in the United States to bring leading science and expertise to Canada. For nearly two decades, Nature United has partnered at local, regional, and national levels to deliver science-based solutions. Drawing on decades of experience in ocean conservation and renewable energy planning, our global teams have advanced efforts to conserve and restore coastal and marine habitats, improve science for informed decision-making, and address climate impacts and biodiversity loss.

Through its global affiliate-TNC, Nature United works for a clean, green, and equitable energy future—one that supports the organizational goals for climate mitigation, conservation, and communities. We see the deployment of offshore wind energy as a critical part of the clean energy transition, and we are supportive of well-developed offshore wind energy projects that apply the best available science to avoid, minimize, and mitigate interactions with marine life and habitat, as well as those that advance science to support, where possible, nature-inclusive design and improved biodiversity. Nature United's global affiliate has a long history of supporting data-driven analyses for siting offshore wind energy in the United States. Our global affiliate-TNC, has developed science and policy expertise in offshore wind energy siting, monitoring, and procurement practices from over a decade of working with government and industry partners in the United States and in the North Sea in Europe.

As part of a global science organization, Nature United takes a pragmatic, science-based approach—working with governments, regulators, communities, and offshore wind companies to develop climate solutions that avoid, minimize, and mitigate impacts while benefiting both people and nature. Nature United is submitting these comments relying on expertise and research from its global affiliate-TNC colleagues in the United States. For ease of reference and to avoid confusion, when referring to research or recommendations made previously by TNC in the United States or in Europe, we will use the identifier "Nature United's global affiliate-TNC."
In our comments below, Nature United provides information regarding the utilization of all available data, the importance of regionally coordinating research and data sharing to support the integration of relevant data into the design of parcels within the identified Wind Energy Areas for the purpose of assessing and mitigating marine life interactions with offshore wind.

A. In response for the CNSOER's request for suggestions and feedback on the government-identified Wind Energy Areas (WEAs) (Sydney Bight, Middle Bank, and French Bank) and the factors the CNSOER will use to design parcels within those Wind Energy Areas, Nature United provides the following information for consideration:

This section discusses the importance of providing access to data, transparency about which data are used and why, context for the data, and why it's important to utilize all available data to assess and manage species interactions with offshore wind. We provide updated information and data relative to seabirds, specifically in part one of this section, and in part two of this section, we address the importance of providing context to data to help guide avoidance, minimization, and mitigation decisions relative to other species and habitats.

1) Use all available data for seabirds to avoid impacts to nesting and foraging activity and to develop best minimization and mitigation strategies for impacted species.

CNSOER's Final Regional Environmental Assessment (RA Study Area) and related reports include an impressive volume of data on seabird movements and habitat use from both survey and tracking data, which have been synthesized into heatmaps of seasonal occurrence and migration. However, the underlying reports acknowledge that data quality is not consistent across species. At this crucial planning stage, it is vital to ensure that the most current and best-quality data are used to minimize the chance of any harmful interactions with seabirds. Given the rapid advances in tracking technology and interest in understanding offshore movements, the volume of available data on relevant seabird species has increased rapidly over the past several years.

Since 2023, Nature United's global affiliate-TNC has conducted multiple tracking studies to better understand at-sea habitat use by seabirds in the mid-Atlantic United States. This work has focused on both non-breeding species (Northern gannet, Great shearwater) and breeding species (Great black-backed gull, Common tern, Roseate tern). As part of this work, Nature United's global affiliate-TNC has tracked several species that occur in the RA Study Area across large portions of their annual cycles, including several that occupied both the New York Bight and Eastern Canada. Most of these data are either unpublished or recently published, but in all cases, Natre United would be pleased to make this data available to ensure timely access and inclusion of this information in planning decisions. Here, we summarize the available datasets and relevant findings by species that may be useful to informing CNSOER's ongoing and future assessments within Wind Energy Areas.

Northern gannet. Gannets are an important focal species in the context of this RA Study Area due to their documented sensitivity to displacement (Lamb et al. 2024) and because their North American breeding range is entirely within or near the RA Study Area. We note that the report by Environment and Climate Change Canada primarily relies on older data from this species obtained from Argos and GLS transmitters, whose spatial and temporal accuracy is too limited to determine exact migratory routes. In 2023-2024, we captured non-breeding gannets in New York Harbor's documented spring migrations of several individuals to breeding colonies in Atlantic Canada. Our data, which document migratory routes with GPS-level accuracy at 10- to 20-minute intervals, indicate both coastal and offshore migrations of this species, with routes varying among

individuals (Figure 1a). We also tracked gannets through the early breeding period at colonies in the Gulf of St. Lawrence, obtaining foraging radii from several colonies. While our data include only a few individuals, they indicate that foraging ranges estimated by Ronconi et al. (2022) from northern gannets breeding on the eastern shore of Newfoundland and used to represent likely foraging ranges in this assessment may be underestimates for some colonies, particularly Bird Rock, where we documented frequent trips to the Newfoundland coast (Figure 2). A complete analysis of factors driving habitat use and at-sea behavior of tracked gannets is available in our recently published manuscript (Lamb et al. 2025), with underlying data through the manuscript or upon request.

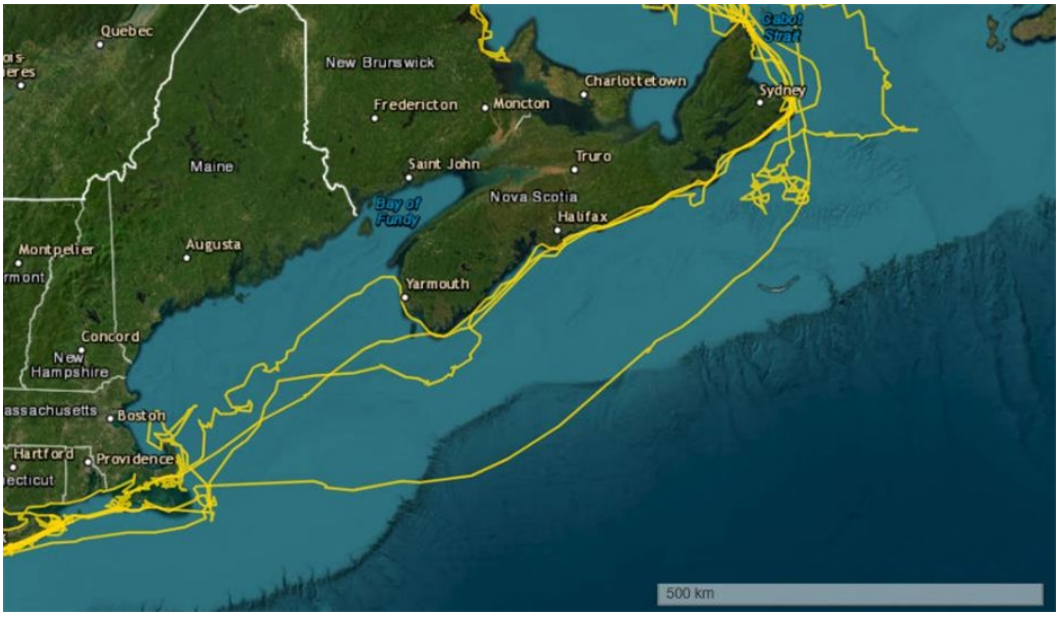


Figure 1. *Northbound migratory routes of Northern gannets traveling from New York Harbor to breeding colonies in the Gulf of St. Lawrence, 2023-2024, showing a mix of onshore and offshore routes. Migration began in early April and took between 4 days and 2 weeks.*

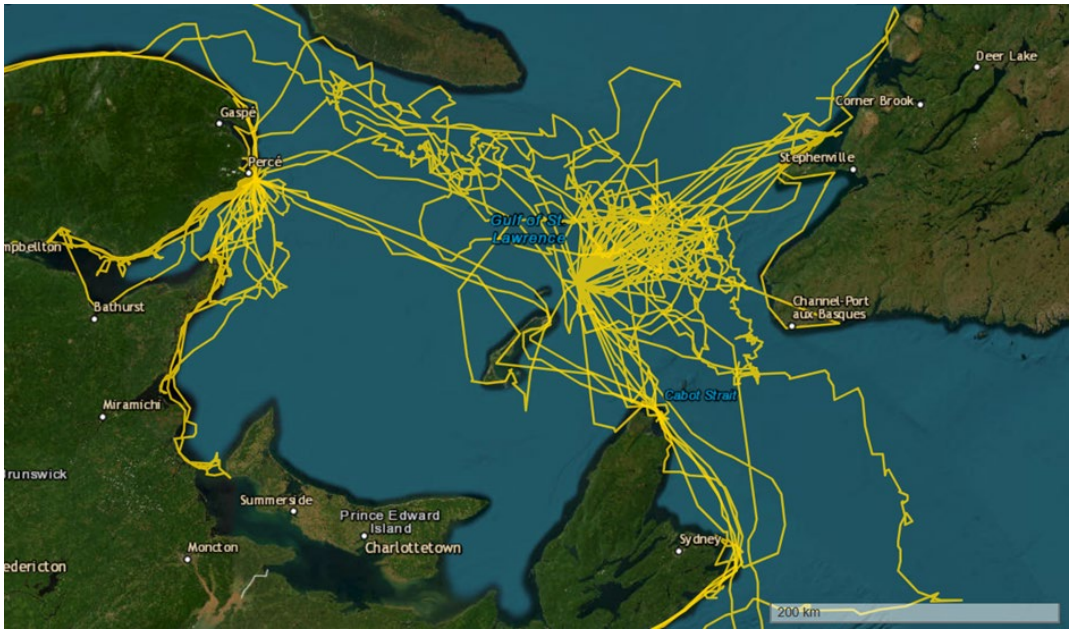


Figure 2. *Detailed movements of Northern gannets tracked from the New York Bight to breeding colonies in Atlantic Canada, 2023-2024. Gannets displayed wide-ranging movements before settling at breeding colonies and, in the case of Bird Island, continued to make long (>200 km) foraging trips after the start of the breeding period.*

Great shearwaters. The assessment identifies shearwaters (genera Ardenna, Puffinus, and Calonectris) as important focal taxa for understanding and measuring effects of offshore wind energy development, since they are long-distance migrants that occur in significant numbers within the planning area and outside the shoreline buffer zone. We also point out that information on these and related Procelariiform species is lacking from existing wind energy developments in Europe, and displacement effects in particular are likely underestimated (Lamb et al. 2024). Since 2024, we have tracked Great shearwaters from the New York Bight and documented movements to and from Atlantic Canada during the non-breeding season (Figure 3). These data are not yet public but could be shared upon request for planning purposes. Over the two years of our study, we have seen very different distribution patterns and habitat use between 2024 (dominated by inshore foraging) and 2025 (dominated by offshore foraging), suggesting that interannual changes in prey conditions and oceanography can have a major impact on distribution in this species. Notably, commuting movements between the New York Bight and Atlantic Canada occurred only in 2025, while in 2024 we observed primarily movement within the mid-Atlantic United States. Since shearwaters occupy the continental shelf waters in large numbers, our data add to existing information from Great shearwaters captured in Stellwagen Bank and Atlantic Canada that could help elucidate factors driving year-to-year variation in habitat use and risk exposure.

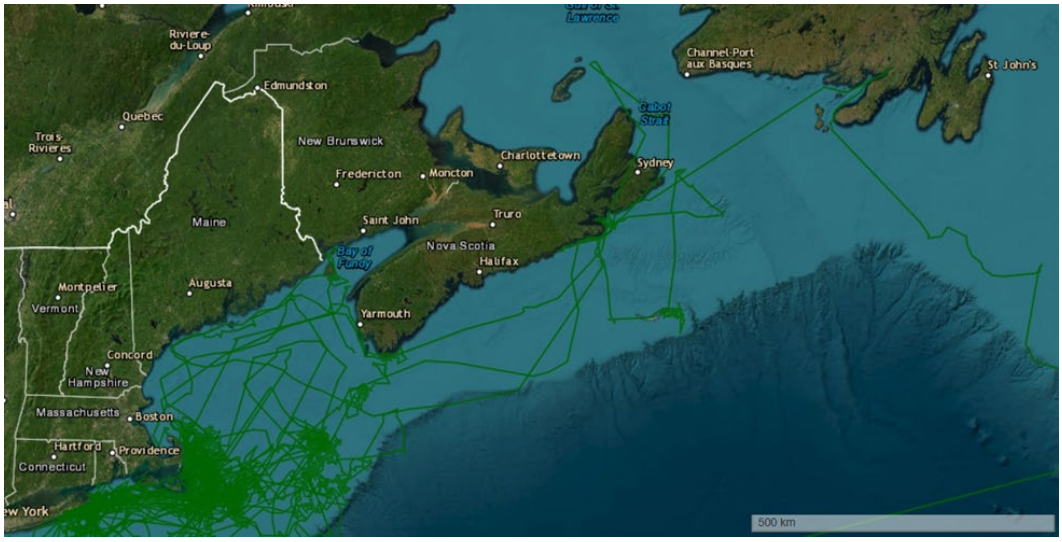


Figure 3. *Movement pathways of Great shearwaters captured in the New York Bight during the non-breeding period, 2024-2025. In 2024, shearwaters remained almost exclusively in the New York Bight and foraged in nearshore waters; in 2025, however, they foraged further offshore and ranged further north and east. Movements to and from Atlantic Canada were recorded only in 2025.*

Great black-backed gulls. Data used in the assessment, including the Ronconi et al. 2022 analysis of foraging radii and the movement models, both highlight that insufficient data are available to assess foraging patterns and habitat use of Great black-backed gulls in the RA Study Area. At the same time, this species is in decline throughout much of its range and the North American population has likely decreased by close to 70% over the past 50 years (Langlois-Lopez et al. 2023). Thus, although the species does not have protected status and is generally considered widespread, understanding the factors causing ongoing declines and the potential effects of offshore wind energy development is of pressing concern. We recently conducted GPS tracking of breeding Great black-backed gulls from two different colonies in southern New England that might help to fill gaps in understanding of movements and habitat use in this species. These data are recent (2024-2025) and are not yet published. However, even preliminary data from a comparable location may provide valuable insights that could inform the current analysis of effects on this species. Notably, we measured breeding-season foraging radii of 10-15 km for the larger Block Island colony (~150 pairs) and 5-10 km for the smaller South Dumpling Island colony (~50 pairs) (Figure 4). We also documented attraction to the Revolution Wind project area during its construction phase in summer 2024 by birds from the nearest breeding colony, Block Island, but not from the slightly more distant South Dumpling Island colony (Figure 5). Each colony occupied an exclusive foraging territory, suggesting that risk of overlap with offshore wind energy in this species during the breeding season depends not only on a colony's proximity to proposed development, but also on the locations of other breeding colonies. Finally, we documented extensive offshore foraging movements as far as the shelf break during the non-breeding season, bringing gulls into much more frequent contact with proposed wind energy developments compared with contact during the breeding season (Figure 6). Our data can be made available on request to help populate a more complete analysis of distribution and offshore wind overlap for this species.

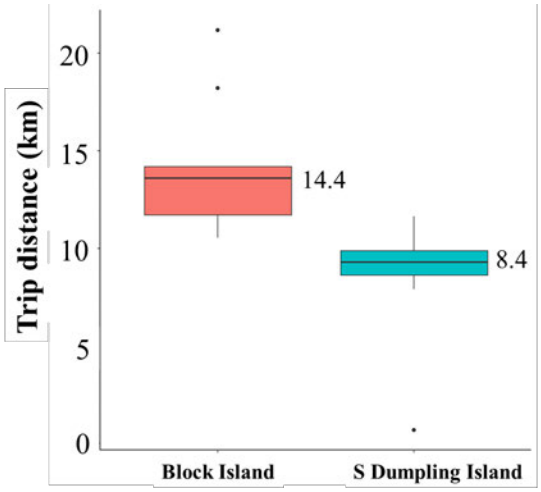


Figure 4. *Foraging radii of Great black-backed gulls breeding on Block Island, RI, USA (red; n = 9) and South Dumpling Island, NY, USA (blue; n= 10) in 2024.*

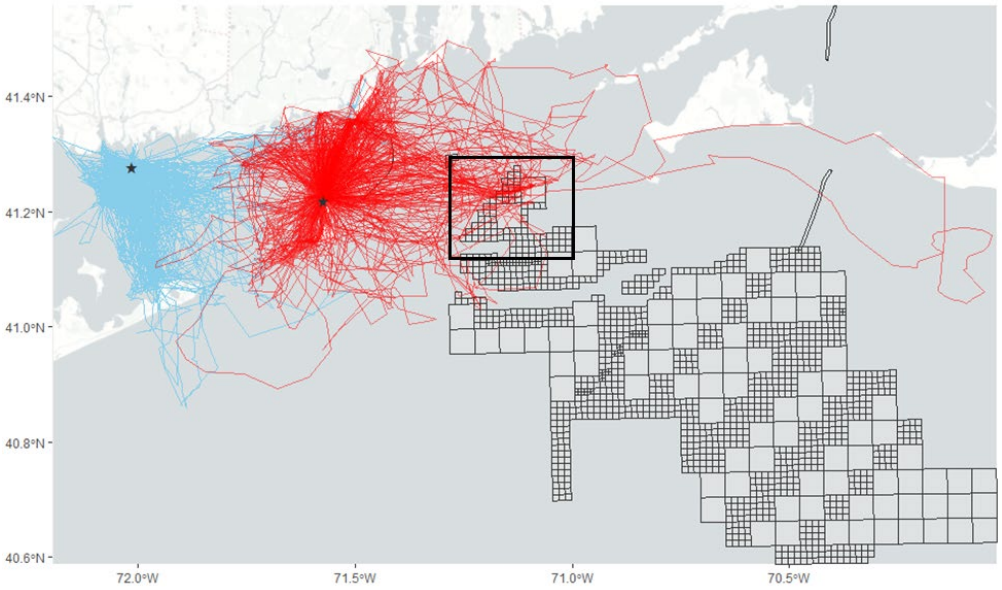


Figure 5. *Tracks of Great black-backed gulls breeding on Block Island, RI, USA (red) and South Dumpling Island, NY, USA (blue) during the breeding season (20 May – 31 July) in 2024. Black hatched areas show wind energy lease areas. The black box indicates a wind energy installation (Revolution Wind) that was under construction during the tracking period.*

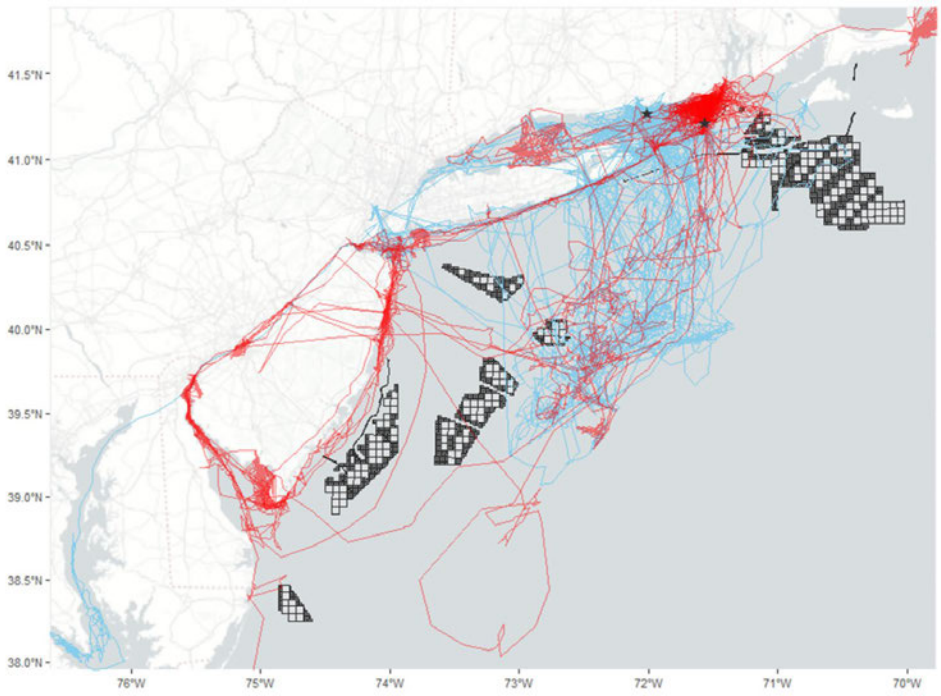


Figure 6. *Year-round movements of Great black-backed gulls from Block Island (red, n = 9) and South Dumpling Island (blue, n = 10), 2024-2025. Offshore foraging movements began in December and continued through March.*

Common and Roseate terns. Roseate terns are of particular concern due to their conservation status. However, data used to generate foraging radii for these species in the assessment was limited, particularly Roseate terns (Ronconi et al. 2022), and there was not sufficient data to generate movement models for either species. Data from existing wind energy developments are also relatively inconclusive for terns (Lamb et al. 2024). Due to development of miniaturized monitoring technologies, however, detailed tracking of small-bodied species such as terns has become more common over the last 2-3 years, resulting in an improvement in data quality and availability for these species. Since 2024, we have tracked both tern species from Great Gull Island, which is home to >10,000 nesting pairs of Common terns and >2,000 pairs of Roseate terns. Again, while these data are not yet public, we can provide them for planning purposes. In 2024, both species foraged within 10-15 km of the colony, with slightly smaller foraging radii in Roseate compared to Common terns. However, in 2025, we saw a shift in prey distribution that resulted in more limited prey availability and doubled foraging ranges in both species (Figure 7). This suggests that food quality may have an important influence on at-sea distribution and, thus, overlap, again highlighting the importance of interannual data collection. Our data could potentially help refine distribution and habitat use estimates. We also suggest investigating data available through the Western Atlantic Tern Tracking Network, an informal consortium of researchers currently tracking terns from Great Gull Island through Atlantic Canada.

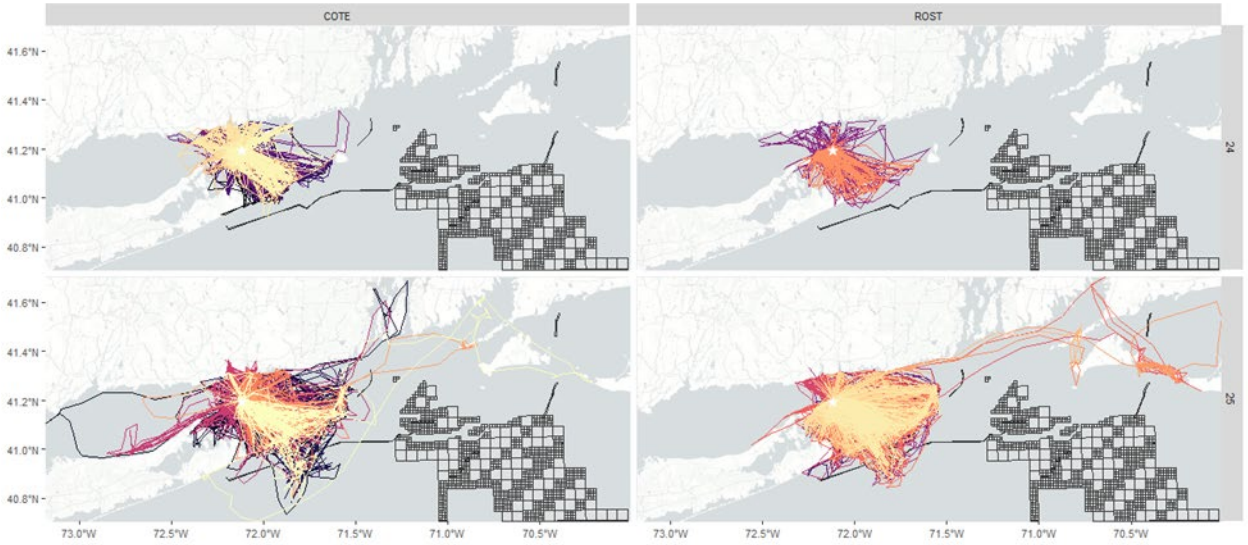


Figure 7. *Breeding-season foraging movements of Common terns (COTE; left-hand column) and Roseate terns (ROST; right-hand column) breeding on Great Gull Island in 2024 (top) and 2025 (bottom). Food conditions were poor in 2025, and average distance of foraging movements increased from 10-15 km in 2024 to 20-25 km in 2025. We also observed more long-distance trips during the breeding season, although no trips overlapped wind energy lease areas (black polygons).*

Other seabird monitoring considerations. Nature United's global affiliate-TNC recently published a meta-analysis (Lamb et al. 2024) that highlights between-species variation in sensitivity to displacement by offshore wind energy, which could be helpful to incorporate into vulnerability assessments. This study emphasized the potential vulnerability of species for which little data are available from European offshore wind projects, including tubenoses and skuas/jaegers. It also highlighted the importance of designing pre- and post-construction monitoring programs with sufficient spatial footprints to accurately measure displacement. We highlight that a regional approach, rather than a project-by-project approach, is best-suited to conducting surveys with sufficient power to detect changes in distribution.

2) Enhance access to data and clarify important contexts for spatial data to better support engagement and siting and mitigation decisions.

Our previous spatial data work in similar siting processes, such as along the Northeast U.S. and in the Gulf of Mexico, has improved our understanding of how people use spatial tools and the kind of information they need to support their understanding of interactions and decisions. We have included some of our lessons learned below:

We commend and support the data-driven process completed for these WEAs by Kilpatrick et al. (2025), especially the delineation of different scenarios based on the potential technology used. We also greatly appreciate the effort to develop the WEA Spatial data viewer and the level of detail and information provided by the tool. However, to ensure a fully participatory review process, global best practice is that all data, not only the final results, be accessible to all users as soon as

possible. Access to data exploration and transparency regarding data certainty and sourcing builds trust and increases the acceptance of decisions based on the publicly available data. Online tools can increase data literacy if considered not just data repositories, but also as resources to connect the dots between relevant pieces of information. Based on our experience supporting offshore wind engagement, design, and development globally, we suggest posting the data online as soon as possible.

Previous efforts by Nature United's global affiliate-TNC in the United States to delineate the Northeast U.S. wind energy areas have demonstrated that users benefit when online tools not only visualize the data available, but also when context and/or guidance is provided helping to interpret what the numbers mean and the relevance of the information to decisions related to the proposed offshore wind development. For example, the WEA viewer includes information about many different benthic and pelagic species, from fish to invertebrates like sea urchins. While there are still some gaps in knowledge, we know that not all species of fish and invertebrates are equally impacted by wind energy development. In fact, spatial overlap does not necessarily equal impact or non-compatibility, as some species and uses are compatible with and may even benefit from the presence of offshore wind development. By including better information and guidance about species and habitat data layers, users and decision-makers may be able to understand whether overlap between the species and the disturbance corresponds with the likelihood of biological disturbance. The ability to see these correlations can provide directionality to avoidance and mitigation decisions. By including guidance on the significance of each layer, and only showing relevant layers for review, important areas that should be considered for protection or mitigation (like EBSAs) can be considered without the noise from all the other information. It is also important that appropriate metrics are chosen to capture the dynamic nature of marine systems. We suggest including, when available, data on the variability of resources throughout the year, as many of the species shown in the viewer have distinct seasonal patterns. Information on fishing communities' level of reliance on certain areas may also be useful as part of this exercise.

Previous work by Nature United's global affiliate-TNC in the United States is available as part of the Marine Mapping Tool (Marine Mapping Tool: Northeast). Our global affiliate-TNC is currently developing methods for integrating additional data sets for non-listed marine birds and other marine species, including individual tracking data as well as colony site data from state and regional coastal surveys, into this decision support tool. This will allow us to better connect all species potentially impacted by offshore wind activities with their annual-cycle habitats (inside and outside of lease areas (*e.g.*, foraging, nesting, breeding). The integration of marine bird distribution data is an important step in connecting non-listed species with their habitats and oceanographic data to inform future mitigation measures, improve coordination on data collection, monitoring for changes, and data management and sharing. It is equally important to flag uncertainty associated with the date being used to inform decisions. Where possible, we encourage planners to align tracking data with environmental data, which would allow updating and standardizing species distribution models that can then be converted into usable formats to identify relevant data sources, gaps, and certainty.

3) Large-scale coordination of data collection approaches, monitoring protocols, and research priorities can help fund priority research, fill knowledge gaps more quickly, and support improved outcomes for marine species and habitats.

There is great value in establishing large-scale, collaborative networks and funding mechanisms that can support science coordination, monitoring, and research to maximize outcomes for biodiversity and species. The success of offshore wind depends on building a collaborative network, developing research priorities, understanding cumulative impacts, and conducting future build-out analyses. In the United States, the Regional Wildlife Science Collaborative serves as an excellent model. Home - RWSC. RWSC was established as a voluntary forum for regulatory bodies, states, industry, and nonprofit organizations to work together and with the research community to conduct coordinated marine life and habitat research in the U.S. Atlantic waters. It serves as a hub to build community and partnerships, streamline data sharing, and accelerate coordination and institutional learning along the Atlantic coast. RWSC governance structure depends on financial contributions from participating sectors for continued support of costs and needs. RWSC is also established to serve as a third-party entity that can receive funds and strategically direct those funds in ways that serve regional priorities. The UK Marine Recovery Fund and the Scottish Marine Recovery Fund, discussed more fully below, are both designed to pool contributions from developers to allow compensation measures for seabirds and other marine wildlife and habitats to be delivered strategically and at greater scale. Marine Recovery Fund - GOV.UK and Scottish Marine Recovery Fund: interim guidance - gov.scot Nature United encourages CNSOER to consider the role it could play in the large-scale coordination of data collected from site assessments, monitoring in adjacent Wind Energy Areas, and research needs and prioritization.

4) Regulatory and permitting requirements should be clear and predictable but also allow for adaptive management and innovation related to best mitigation practices and technology.

Regulatory requirements should be clear and predictable, but it is also true that the best technologies and approaches for avoiding impacts and improving environmental outcomes may be discovered sometime after permitting and during construction or operation. Many species and habitat interactions with offshore wind infrastructure are still being studied. This means that learning will continue and knowledge gaps will be filled throughout the life of a project. In the United States, Nature United's global affiliate-TNC has advocated, where possible, for regulatory approaches that allow for a nimble regulatory response to new information, while also reducing regulatory and financial uncertainty. Outlining clear approaches to adaptive management for the short and long-term development impacts of wind energy, will be important not only for reducing regulatory and financial uncertainty but also to address the interactions that are not easily forecast based on today's understanding of available data and to address potential cumulative impacts that may come from development in multiple and adjacent wind energy areas. In the United States, our global affiliate-TNC colleagues have previously supported approaches that allow the testing of emerging technologies at the site assessment phase to inform options to avoid and further minimize impacts to wildlife and ecosystems during construction and operation. The recommendations outlined in the Technology Chapter of RWSC's Science Plan, including deployment of new technology to address key knowledge gaps and enable faster timelines for understanding and minimizing or mitigating impacts, also offer a useful framework. Science Plan - RWSC

B. In response to CNSOER's request for suggestions and feedback on bid submission criteria to be used as part of the Call for Bids process, including specific criteria, criteria weighting, scoring metrics, and evaluation methods related to 'Environmental Sustainability and Coexistence', Nature United provides the following information for consideration:

1) Support qualified projects by clearly defining the policy objectives for environmental sustainability, bid submission criteria, and establishing standardized approaches to measure the success of required biodiversity plans

It is commendable that CNSOER is encouraging developers to address not only coexistence with important existing users, uses, and fisheries compensation, but also biodiversity by including the requirement for a Biodiversity Plan with "proposed measures to protect, conserve, and/or enhance biodiversity." Since the Kunming-Montreal Biodiversity Framework on Biodiversity was adopted in 2022, many countries, including Canada, have been working to reduce threats to biodiversity by planning and managing to reduce biodiversity loss, but also by planning for the restoration of degraded and impacted ecosystems that are valuable for species and genetic diversity. We have seen the implementation of a number of policies and finance mechanisms included in offshore wind tenders and leasing procedures to achieve action-oriented global biodiversity targets.

The mitigation hierarchy provides a framework for offshore wind to deliver biodiversity benefits and climate change mitigation. The hierarchy sets avoidance as the first and most important step to project development. Avoiding impacts to priority habitat features and species is best achieved in the wind energy area selection phase and then subsequently at the project-level in the initial design phase through foundation technology selection, micro-siting, project layout, scheduling construction windows, etc.). It is paramount to sequentially and iteratively apply the established mitigation hierarchy throughout the life of a project to achieve at a minimum no net loss for priority species and habitat at the project-level.

This is even more important where there are multiple projects planned in the same eco-region. In many instances, the priority species and habitats identified will inform commitments to monitor, assess cumulative impacts, restore, regenerate, compensate for, and offset. For this reason, selecting priorities should result from a process with preconceived criteria. The criteria could include imperilment or conservation status, but also should be broad enough to include non-listed species that are likely to interact with offshore wind projects, and which may be impacted or displaced. Nature United's global affiliate – TNC is not suggesting that all non-listed species and habitats require avoidance, minimization, mitigation and monitoring (AMMM) measures, but the process and criteria used to inventory and select target species should be able to capture effects and interactions with non-listed species and habitats in order to assess cumulative impacts across wind energy areas, effects on function and productivity, and to adaptively manage and mitigate with an ecosystem mindset.

The most successful Environmental Sustainability initiatives and Biodiversity Plans will be those in which the mitigation hierarchy for a clearly defined ecological feature or species is being rigorously pursued. Success also hinges on the proposed project parameters and implementing steps being easily understood and verified, and the existence of (or ability to collect) quality baseline data for the priority feature or species.

After securing no net loss at the project level for priority species, Nature United's global affiliate-TNC supports adding a requirement that projects go above and beyond the existing regulatory requirements for mitigation for priority species and habitats. This could be achieved by: 1)

demonstrating ecological or species benefit through technology selection, project design, enhanced ecosystem services, or habitat creation in an ecologically appropriate manner at the project level scale, 2) contributing to transparency and timely sharing of data, research, or regional monitoring (not already required) that improves knowledge about the interactions between offshore wind and priority species, habitats, or ecosystem function, or 3) contributing to innovative multi-sector and multidisciplinary partnerships that improve essential habitats or habitats that are otherwise important to priority species. These opportunities for going above and beyond no net loss have been key in setting apart industry leaders from average projects and important returns on investment for industry leaders willing to really integrate sustainability considerations into their projects. Another option would be for CNSOER to list broad categories of approved activities that could be included in the Biodiversity Plans for qualified projects. For example:

a) Qualifying monetary contribution ("Contribution"), in the same amount as the bidding credit received, to programs or initiatives that support priority environmental sustainability objectives. Like the RWSC example mentioned above, there are other examples of third-party entities established to receive and strategically direct funds to serve regional priorities. As mentioned previously, the UK Marine Recovery Fund and the Scottish Marine Recovery Fund are both designed to pool contributions from developers to allow compensation measures for seabirds and other marine wildlife and habitats to be delivered strategically and at greater scale. Marine Recovery Fund - GOV.UK and Scottish Marine Recovery Fund: interim guidance - gov.scot
b) Developer chooses to advance a conservation project in the region that addresses government priorities. For example, the conservation project:

- Included a proposal to test quiet foundations (jackets with suction caissons, suction buckets, gravity-based, etc.) as part of the initial site assessment; including technologies or installation approaches that significantly reduce marine noise associated with vibratory or impact pile-driving below recommended targets; proposes inclusion of a physical distance limit for injurious sound to baleen whales; proposes advanced best practices during construction to further minimize risk to baleen whales;
- Develops and implements monitoring for and removal of ghost gear up to the value of bidding credit;
- Proposes an approach to shared and coordinated monitoring efforts across adjacent project areas to improve not only cost-effectiveness, but also to better support understanding of cumulative impacts and species' use of the resources in the eco-region in relation to multiple projects sited within it;
- Is designed to achieve Net Positive Impact (NPI) through contributions, projects, offsets, or compensatory mitigation (not otherwise required), which has been endorsed by a local or regional institution, organization or body with restoration/mitigation expertise and which is certified as a valid approach by a third party.

2) Consider co-created and co-owned fisheries compensation and community benefits models as preferred models in proposed co-existence plans.

The most successful approaches to fisheries compensation plans, especially those developed with commercial and recreational fishing communities in mind, have been co-created and co-owned.

The commercial and recreational fishing communities need to be supported in ways that keep their businesses viable and operating safely for generations to come. For example, trusts that are co-managed or directly managed by the impacted community have been used as models for fisheries compensatory mitigation. The guidelines for use of the fisheries mitigation funds should be flexible and designed with input from the affected communities to ensure they go beyond recovery for physical damages or lost gear, etc. Some considerations include funds or investments that improve the sharing and co-use of resources, vessels, and equipment to improve fisheries surveying, support fishing innovation, research, gear upgrades, safety training, business support, and support the participation in fisheries today and over the life of the offshore wind project.

3) Explore pathways to encourage and deliver a Biodiversity-Positive Offshore Wind Industry.

Offshore wind companies are designing projects to support biodiversity goals in a number of countries. Initiatives of particular relevance to this inquiry regarding the best criteria and metrics are: the EU Corporate Sustainability Reporting Directive (CSRD), which measures compliance through independent audits of established mechanisms for ESG assessment; the use of biodiversity-related non-price criteria in the tender/auction process, policy and guidance from the UK related to biodiversity net gain approaches, which includes the Land-Based Biodiversity Metric (Calculate biodiversity value with the statutory biodiversity metric - GOV.UK), the UK consultation on the principles of Marine Net Gain and the government response (Government response - GOV.UK).

In November of 2025, The Global Initiative for Nature, Grids and Renewables (GINGR), a multi-stakeholder initiative that works to support governments, companies and the financial sector, produced a report for COP30 that proposed further actions in three critical areas: optimizing use of biodiversity criteria in auctions; progressing the integration of nature positive measures across the value chain of key enabling infrastructure; and nature positive aligned development of decommissioning frameworks. It included a companion annex with an overview of the reviewed literature and initiatives. The paper can be accessed here: Integrating Nature into Offshore Wind Development

In July 2025 the Europe team of Nature United's global affiliate-TNC produced a report entitled *Beyond Price: How non-price criteria in renewable energy actions can help deliver for climate, nature and people*. The report can be accessed here: non-price-criteria-TNC-europe.pdf

In October 2023, the United Nations Global Compact Ocean Stewardship Coalition held a series of working meetings, which convened a public-private multi-stakeholder group including ocean industry, Governments, non-government organizations, academics and other relevant stakeholders to create alignment in identifying the critical components required to deliver ORE in a biodiversity-positive manner. The outcome of those meetings is the following document meant to inform ORE developers' action on biodiversity by outlining the minimum considerations that must underpin ORE actions designed to achieve NPI at the project level. These minimum considerations outline what ORE developers should be working towards while institutional frameworks, reporting mechanisms and technologies are still in development. NetPositiveBiodiversity_5.pdf

In April of 2023, the Marine Affairs Institute at Roger Williams University School of Law and The Nature Conservancy, co-hosted a Marine Law Symposium on April 20–21, 2023, titled *Can Offshore Wind Development Have a Net Positive Impact on Biodiversity? Regulatory and Scientific Perspectives and Considerations*. The symposium featured seven panels with 46 speakers and moderators, including representatives from United States-based and Dutch-based companies that support offshore wind development in various ways; federal and state government officials from the United States, the Netherlands, and the United Kingdom; marine ecologists; other scientists and researchers; and consultants working on offshore wind and/or studying the marine environment. The symposium report can be accessed here: Can Offshore Wind Development Have a Net-Positive Impact on Biodiversity? Regulatory and Scientific Perspectives and Considerations

While there are regulatory pathways to address biodiversity in Europe, in the US, the lever for biodiversity-positive has come primarily through state contractual requirements and/or investor requirements. In January of 2023, Nature United's global affiliate-TNC co-produced a paper with the Institute for Energy and the Environment at Vermont Law School. The paper entitled *Using Non-Price Criteria in State Offshore Wind Solicitations to Advance Net Positive Biodiversity Goals*, surveys and compares existing state solicitation processes, assesses the authority of key decision-making agencies, considers how the federal government is using non-price criteria in its leasing procedures, and highlights how European countries are leveraging offshore wind auctions to invest in the ecological enhancement of their marine and aquatic ecosystems. iee-tnc_offshore-wind-report_20230606_1644.pdf

Regardless of the motivating factor, the ambition to contribute to the nature-positive initiative aligns closely with the importance of addressing the global biodiversity crisis. The best outcomes for nature and climate mitigation will come from standardized approaches to go beyond no net loss, planning for restoration and mitigation at scale and across the ecosystem, qualitative expert assessment of proposed Biodiversity Plans, the establishment of a joint fund to accommodate cooperative regional approaches to mitigation and restoration.

C. In response to CNSOER's request for suggestions and feedback on possible considerations for community benefits programs related to offshore wind development, Nature United provides the following information for consideration.

1. Recommendations for Enabling Community Engagement and Equitable Distribution of Benefits

The development of offshore wind creates an opportunity for a just transition to an environmentally sustainable economy that is fair and inclusive, particularly for historically marginalized groups. These projects hold the promise of numerous benefits for individuals, communities, the

environment, and the investing companies. However, absent a targeted policy framework, these advantages are not automatic and may not be equitably distributed. To actualize the benefits that offshore wind projects can deliver, and to ensure their equitable distribution, there is a need to develop a set of consistent, coherent, and shared standards for community engagement and benefit sharing. Community benefits should be fair, direct, and simple, and tailored to address the needs and priorities of the affected populations. It is important that investments flow directly to the community so that they have agency over how they are deployed. Distribution of benefits should be transparent and can take multiple forms, including community benefits agreements that outline benefits such as social investment funds, local hiring commitments and job training, or infrastructure development. For additional information and resources related to community benefits and engagement, see Enabling a Community Powered Energy Transition: Good practices for engaging stakeholders, fostering collaboration, and promoting socioeconomic benefits, developed by Nature United's global affiliate- TNC. See also the UN Global Compact Ocean Stewardship Coalition's newly published policy brief *Advancing Offshore Wind Development through the Just Transition*. The brief outlines how the offshore wind industry can better deliver on projects by embedding the just transition as a strategic priority from project inception. https://unglobalcompact.org/library/6302

Nature United greatly appreciates this opportunity to contribute to the development of Canada's first offshore wind projects. We would welcome further pathways for more collaboration on data and policy recommendations. A references and additional resources list follows the letter. For more information about the data and recommendations contained in this comment letter, please reach out to the undersigned.

Respectfully submitted,

/s/ *Jenn Burt*

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Guidance on how to calculate biodiversity value with the statutory biodiversity metric. UK Government Department for Environment, Food and Rural Affairs. https://www.gov.uk/guidance/biodiversity-metric-calculate-the-biodiversity-net-gain-of-a-project-or-development

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Enabling a Community Powered Energy Transition: Good practices for engaging stakeholders, fostering collaboration, and promoting socioeconomic benefits. The Nature Conservancy. https://www.nature.org/content/dam/tnc/nature/en/documents/Enabling_a_Community-Powered_Energy_Transition.pdf

Advancing Offshore Wind Development through the Just Transition. UN Global Compact Ocean Stewardship Coalition. https://unglobalcompact.org/library/6302

January 13, 2026

Ocean Frontier Institute (OFI),
Led by Dalhousie University,
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Halifax, NS B3H 4R2

Dear Canada-Nova Scotia Offshore Energy Regulator,

Thank you for the opportunity to provide input on bid submission criteria for the upcoming Call for Bids process.

We welcome the regulator's focus on integrating biodiversity considerations into offshore wind development in Atlantic Canada and offer the following recommendations to support robust, transparent, and future-ready evaluation criteria.

We recommend that bid criteria include minimum net-positive biodiversity requirements, ensuring projects demonstrate measurable biodiversity gains over their lifecycle, aligned with internationally recognized guidance such as the UN Global Compact. This approach moves beyond impact minimization toward long-term ecological benefit and accountability. Early-stage spatial sensitivity mapping should also be required during planning and leasing to steer development toward lower-impact areas and avoid sensitive habitats, reducing conflict and regulatory risk at later stages.

To address ecosystem-scale pressures, bids should include regional cumulative impact assessments that consider offshore wind alongside other maritime activities, using risk-based frameworks to capture combined effects on marine ecosystems. Standardized and adaptive biodiversity monitoring protocols should be mandated across all projects, enabling consistent evaluation of impacts on protected species, fish, seabirds, and habitats, while supporting evidence-based regulatory oversight.

Bid evaluation should further incentivize ecosystem-based design and nature-inclusive solutions that integrate biodiversity considerations into infrastructure, such as habitat-enhancing foundations or nature-based solutions. These approaches can strengthen ecosystem function while maintaining engineering performance. Strong governance provisions, including adaptive management requirements, should ensure that mitigation measures evolve in response to monitoring results and emerging science.

Meaningful, multi-sector engagement should be embedded as a core criterion, requiring proponents to demonstrate early and ongoing collaboration with Indigenous communities, fishing interests, scientists, industry, and conservation stakeholders. This engagement is

essential to informed siting, effective mitigation, and long-term project legitimacy. Consistent enforcement of the mitigation hierarchy (enabling prioritizing avoidance and minimization before restoration or compensation) should apply across all project phases, with clear evidence required at each stage.

Alignment with existing and proposed Marine Protected Areas and other spatial conservation measures should be explicitly assessed to avoid core biodiversity hotspots and support broader marine conservation objectives. Transparency should be strengthened through requirements for publicly accessible reporting on biodiversity impacts, mitigation effectiveness, and monitoring outcomes, fostering shared learning and continual improvement across the sector.

Additional bid criteria should require robust, multi-taxa monitoring before, during, and after construction, as well as early, species-specific risk assessments tailored to Atlantic Canada conditions. Projects should be evaluated for consistency with broader marine spatial planning objectives and include clear adaptive management triggers within permits to ensure timely mitigation action when thresholds are exceeded. Where residual impacts remain unavoidable, biodiversity compensation measures should be clearly defined and applied strictly as a last resort.

Finally, bid evaluation should explicitly integrate climate and biodiversity objectives, ensuring offshore wind development delivers climate mitigation benefits while safeguarding marine ecosystems. Early and sustained Indigenous engagement and stakeholder co-design should be recognized as essential to achieving durable, socially supported outcomes.

The Ocean Frontier Institute brings established expertise in interdisciplinary ocean research, data integration, and collaborative governance across Atlantic Canada and internationally. OFI is well positioned to support the regulator, Indigenous partners, the fishing community, industry, and other stakeholders with the development and operationalization of these recommendations, including bid criteria, monitoring frameworks, and knowledge exchange to advance responsible offshore wind development.

We appreciate the opportunity to contribute to this process and would welcome further dialogue.

Sincerely,

Elianny Dominguez Tejo

Dr. Elianny Dominguez-Tejo
Research Program Developer *Biodiversity, Fisheries and Aquaculture*
Adjunct Professor *Marine Affairs Program, Dalhousie University*

Please find below a short reference list and a sample of a Biodiversity-Related Bid Criteria, Weighting, and Evaluation Methods for your reference.

References

- UN Global Compact. *Guidance on Net-Positive Biodiversity and Ocean-Based Renewable Energy*.
- The Biodiversity Consultancy. *Integrated Environmental and Social Sensitivity Mapping for Offshore Wind*.
- International Union for Conservation of Nature (IUCN). *Risk-Based Frameworks for Cumulative Impact Assessment*.
- NOAA Fisheries / BOEM. *Regional Standards and Technical Guidance for Offshore Wind Environmental Monitoring*.
- International Marine Contractors Association (IMCA). *Environmental Sustainability and Nature-Inclusive Design Guidance*.
- Seas At Risk. *Offshore Wind and Marine Protected Area Alignment*.
- Tethys Knowledge Base. *Best Practices for Multi-Taxa Monitoring in Offshore Wind Development*.
- Ocean Conservancy. *Marine Spatial Planning and Sensitivity Mapping Guidance*.
- Australian Department of Climate Change, Energy, the Environment and Water (DCCEEW). *Mitigation Hierarchy and Environmental Assessment Guidance for Offshore Wind*.

Table: Suggested Biodiversity-Related Bid Criteria, Weighting, and Evaluation Methods

Recommendation Area	Suggested Bid Criterion	Indicative Weighting**	Evaluation Method
Net-Positive Biodiversity	Demonstrated, measurable biodiversity gains over the project lifecycle, aligned with recognized international guidance	High	Review of biodiversity objectives, metrics, baselines, and verification approach

Recommendation Area	Suggested Bid Criterion	Indicative Weighting**	Evaluation Method
Early Spatial Sensitivity Mapping	Use of integrated environmental and social sensitivity mapping to inform site selection	High	Assessment of mapping methodology, data sources, and avoidance outcomes
Cumulative Impact Assessment	Regional cumulative effects assessment including other maritime activities	High	Technical review of scope, assumptions, and risk-based assessment framework
Standardized Monitoring Protocols	Commitment to standardized, adaptive monitoring for key taxa and habitats	Medium–High	Evaluation of monitoring plans, indicators, and adaptive feedback mechanisms
Ecosystem-Based / Nature-Inclusive Design	Integration of biodiversity-enhancing design features in infrastructure	Medium	Design review and justification of nature-inclusive solutions
Governance & Adaptive Management	Clear adaptive management framework tied to monitoring results and new science	Medium	Review of governance structure, decision triggers, and accountability mechanisms
Stakeholder Engagement	Early and ongoing engagement with Indigenous groups and key stakeholders	High	Assessment of engagement plans, timelines, and evidence of co-design
Mitigation Hierarchy	Demonstrated application of avoid–minimize–	High	Review of alternatives analysis

Recommendation Area	Suggested Bid Criterion	Indicative Weighting**	Evaluation Method
	restore–compensate hierarchy		and mitigation evidence at each phase
MPA & Conservation Alignment	Alignment with existing/proposed MPAs and conservation measures	Medium	Spatial analysis and justification of siting decisions
Reporting & Transparency	Commitment to public reporting of impacts, mitigation, and monitoring results	Medium	Review of reporting scope, frequency, and accessibility
Multi-Taxa Monitoring	Comprehensive monitoring across multiple species groups and habitats	Medium	Technical assessment of monitoring breadth and rigor
Species-Specific Risk Assessment	Early risk assessments for protected and sensitive species	High	Review of species selection, impact pathways, and mitigation measures
Integrated Marine Spatial Planning	Consistency with broader marine spatial planning objectives	Medium	Policy and spatial coherence assessment
Adaptive Management Triggers	Defined thresholds and enforceable mitigation triggers	Medium	Review of trigger clarity and enforceability
Biodiversity Compensation	Clear, last-resort compensation or offset measures	Low–Medium	Evaluation of necessity, proportionality, and effectiveness

Recommendation Area	Suggested Bid Criterion	Indicative Weighting**	Evaluation Method
Climate–Biodiversity Integration	Demonstrated climate benefits delivered without biodiversity trade-offs	High	Integrated assessment of climate and biodiversity outcomes
Indigenous Co-Design	Evidence of Indigenous knowledge integration in siting and mitigation	High	Qualitative review of co-design processes and outcomes

***Note:** Indicative weighting is provided for guidance only and can be adjusted to align with regulatory priorities.*

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January 13, 2026

Canada-Nova Scotia Offshore Energy Regulator
27-201 Brownlow Avenue
Dartmouth, Nova Scotia, B3B 1W2
info@cnsoer.ca

Submitted via Online Form

Re: Offshore Wind Call for Information NS25-1R

Dear Canada-Nova Scotia Offshore Energy Regulator ("CNSOER" or "Regulator"),

The Ecology Action Centre (EAC) supports offshore wind (OSW) power generation, on the condition that it's done right. We are inspired by this incredible opportunity to decarbonize our energy systems and we remain hopeful that this industry can play a role in fostering local prosperity. The EAC has been involved in processes related to the development of renewable energy systems for many years, and we have contributed our perspective on OSW at each available opportunity.

As we near Nova Scotia's first Call for Bids, the establishment of clear, principled and transparent processes to guide development becomes increasingly important for the success of this enterprise. Nova Scotia is full of historical examples where industrial profit is created at the expense of communities and the environment. We do not wish to see these patterns repeated, especially for an energy technology intended to help us prevent the worst environmental and social impacts of climate change. We want to see the emergence of a successful OSW industry that makes our communities proud and that offers a model of sustainable renewable energy development to the world.

To that end, we were pleased to see the recommendations of the Regional Assessment of Offshore Wind Development in Nova Scotia ("RA") and subsequent federal-provincial Strategic Direction keep the door open for an OSW industry with pro-social and harm reduction principles at the centre. The selection of the Wind Energy Areas (WEAs) through the RA process has provided a good foundation for the mitigation of ecological damage and conflict with fisheries and other ocean users. As OSW project proposals come forward, we are calling on the CNSOER and governing decision-makers to extend these principles and maintain a precautionary, evidence-based approach to decisions at finer spatial scales.

The OSW development process should remain consistent with environmental protection and coexistence objectives, and should offer benefits to Indigenous communities, Canadian ratepayers, local communities and workers wherever possible. A commitment to

such an approach and the continued collaboration of the CNSOER, government agencies and rightsholders and stakeholders is critical now to ensure clarity and maintain trust.

Thank you for this 90-day Call for Information period. We have included our subject-specific feedback and suggestions below. Please do not hesitate to contact EAC for further comment.

1. Wind Energy Areas and Parcel Design

We have assessed available WEA data to recommend zones for exclusion, mitigation measures or further study. Many of these recommendations build upon commentary that we offered to the RA Committee, and we are available to provide additional detail at the Regulator's request. We highlight the need for marine spatial planning tools to be applied at an appropriate resolution in support of defensible decision-making. As OSW advances, emphasis should remain on maintaining high quality data and spatial analysis. Refined WEA datasets and multivariate spatial analysis can point to locations where ecological and economic impacts may be further reduced and where a project is therefore more likely to succeed. Where uncertainty or data gaps remain, clear site assessment instruction for proponents and transparent criteria for the evaluation of proposals will create a transparent development process.

Avoid existing or potential marine conservation areas

All existing and potential marine conservation areas should be excluded from offshore wind development consideration. We were pleased to see the Sable Island Bank WEA's large overlap with the Western Emerald Banks Conservation Area (WEBCA) reduced during the WEA establishment phase. However, there is still some crossover with WEBCA's eastern extent, which should be removed from consideration for submerged land licenses (“SLLs”). Sable Island Bank also overlaps or borders two areas currently classified for "Tier 2" conservation consideration by DFO. These areas should not be open to development until their potential for protection can be further assessed. We recommend the Regulator provide advice for proponents to reduce construction and operational impacts (e.g., noise, transit) on existing protected areas near developments.

Avoid Critical Habitat and apply precaution within EBSAs

Apply heightened precaution to WEA parcels overlapping Ecologically and Biologically Significant Areas (EBSAs) and critical habitat for marine mammals, fish and aquatic species at risk. Known habitat for species including the leatherback sea turtle, blue whale and North Atlantic right whale overlap significant portions of existing WEAs. Additional study is required to avoid migration and feeding areas and mitigate the impacts of siting decisions as much as possible. Middle Bank and the Emerald Western Sable Banks Complex have been identified as EBSAs by DFO for their unique ecological features and aggregations. With the Middle Bank and Sable Island Bank WEAs almost entirely overlapping these EBSAs, additional precaution is required here as development planning proceeds. We encourage the CNSOER to work with DFO to establish areas of potential ecological risk prior to bid calls in these WEAs. Site assessment requirements should call

for proponents to engage meaningfully with existing data, collect new data, and demonstrate efforts to avoid important features within these areas.

Refine sensitive benthic habitat data, avoid known sponge and sea pen aggregations

Refined data on sensitive benthic areas should be collected and considered before defining bidding areas. Available data now shows known sponge and sea pen aggregations within and along the boundaries of both French Bank and Middle Bank in particular. These species provide an important structure for healthy benthic ecosystems and development should not occur where special aggregations are found. Additionally, we hope to see OSW proponents responsible for video surveys in locations where data gaps exist for these habitats.

Avoid high risk areas for seabirds

Identify and avoid critical areas for bird migration routes, nesting sites, and feeding grounds. Collisions with wind turbines and changes in bird behaviour can adversely affect avian populations. There are a number of "high" and "very high" risk areas located throughout French, Middle and Sable Island banks. Very high risk areas should be eliminated from SLL consideration and proponents must be accountable for the implementation of mitigation measures in high risk areas. It is worth noting that siting projects near bird conservation areas has led to project delays in other jurisdictions (BBC, 2025).

Refine fisheries data to better understand tradeoffs, continue to reduce OSW-fishing overlap

We appreciate the collaborative work done through the RA to reduce potential fisheries conflict thus far. At this stage, more precise detail is needed so we can identify the trade-offs that may be necessary. Site selection and design will affect different fisheries, gear types, businesses (e.g., corporation vs. owner-operator) and fishing communities (e.g., impacts on one wharf vs. another) in different ways. We encourage the Regulator to learn from outcomes in other jurisdictions in this regard, and to continue following the advice of DFO and the Fisheries Advisory Council (FAC) to minimize displacement wherever possible. We expand on fisheries recommendations in the coexistence section.

Continue participatory process

We encourage the Regulator to ensure the continuation of quality participatory process for rightsholders and stakeholders in delineating SLL areas, parcels, and selecting development proposals. We hope to see high standards for transparency maintained.

Summarized recommendations: maintain commitment to reduction of ecological and economic harm; continue to refine datasets and decision processes through collaboration with government agencies, rightsholders and stakeholders; offer clear site assessment guidance to ensure proponents address data gaps.

2. Bid Submission Criteria

We support the inclusion of technical expertise and project delivery capacity, as well as financial strength and project delivery readiness, as price criteria for consideration in the evaluation of submitted bids. We support giving greater weight to developers that are best prepared to deliver a successful project on time.

We also support the inclusion of engagement, community benefit, supply chain development, and workforce development plans inclusive of the Mi'kmaq of Nova Scotia, African Nova Scotian and African Descent communities, and other underrepresented and underserved groups, as well as marine-use coexistence and biodiversity sustainability plans, as non-price criteria for consideration in the evaluation of submitted bids. Furthermore, we see these as a reasonable minimum threshold that all prospective bidders should meet.

We also acknowledge that some of the non-price criteria are standard Canadian business practices that any successful bidder would be expected to comply with (e.g., community engagement and environmental monitoring and compliance), and believe it's important to distinguish between ordinary expectations for industries operating in Nova Scotia's offshore versus unique challenges related to launching OSW development (e.g., supply chain, workforce, coexistence planning). We support giving greater weight to bidders with a history of high ESG standards, both because it is consistent with EAC philosophy and because it ensures more market options and value. We recommend that non-price criteria be measurable and scorable, and incentivize best-practice approaches to achieving their intended objective.

The use of price criteria in OSW auctions in other jurisdictions has helped to drive down the cost of OSW power generation, with OSW electricity prices having become increasingly affordable compared to gas powered electricity in recent years (Carbon Trust, 2024). With OSW development prices becoming more competitive, and the possibility of multiple bids offering equivalent price criteria, non-price criteria are increasingly used to evaluate bids (Jansen et al., 2022). Under the Net-Zero Industry Act introduced in 2024, European Union Member States are mandated to use 30% non-price criteria for prequalification and bid evaluation in renewable energy auctions where subsidies will be granted (EU, 2024). American states have also increasingly used 25-30% non-price criteria in offshore wind auctions (Vermont Law School, 2023). While ecological non-price criteria have accounted for 45-50% of the total points in OSW auctions in the Netherlands (BirdLife, 2025), we recommend the more standard approach of using 30% non-price criteria in Atlantic Canada for now.

Supply chain and workforce development

We strongly recommend setting high expectations in bidding criteria both for long-term sector development and sustainability in Atlantic Canada, and for diversity, equity, and inclusion in supply chain and workforce development. We would like to see weight given to supply chain development plans that focus on leveraging Atlantic Canada's existing marine sector expertise, goods, and services (e.g., project management, engineering, iron ore and nickel mining, secondary steel component fabrication, offshore installation and

maintenance, component storage and marshalling, and marine logistics and vessel services). Short supply chains support regional prosperity, as well as reduce carbon emissions related to transport and travel. However, we do not recommend strict local content requirements that could contribute to high costs or an undersupply of equipment that could cause projects to become delayed or cancelled (Maritime Executive, 2024).

While the RA delegates responsibility for educational curricula, training, upskilling, retraining, credentialing and micro-credentialing programs to departments of the provincial government, we would like to see weight given to bids that include workforce training plans. This could include commitments to educational institutions in Atlantic Canada through funding, guidance, or co-op and apprenticeship pathways. We would encourage plans to inform Atlantic Canadians on direct and indirect career opportunities in the offshore wind sector.

Biodiversity planning

We would like to see weight given to bids with robust biodiversity plans that ideally follow a science-based mitigation hierarchy and AR3T action framework (WWF, 2025[1]). A World Wildlife Fund position paper published in July 2025 (WWF, 2025[2]) makes policy recommendations for auction design and pre-qualification and award criteria. We have summarized these criteria to align with our recommendations for bid parcel design, and we'd like to see them further operationalized in biodiversity plans for Nova Scotia's OSW sector:

- Avoid siting turbines or substations in MPAs, areas slated for protection, or areas of particular importance for biodiversity and ecosystem services
- Avoid siting turbines or substations in spawning and rearing areas for fish; migration routes and important habitats for seabirds, bats, or marine mammals; important habitats for threatened species; important areas for feeding, breeding and haul-out
- Limit the impact on migration patterns of birds, fish, turtles, and marine mammals at all phases of the project (e.g., painting blades black, stopping or slowing blades during migration windows, using as much light as necessary but as little light as possible, etc.)
- Avoid construction during times of the year that may be harmful to identified local species (e.g., breeding season)
- Minimize sound levels during construction and operation using techniques such as bubble curtains, as needed
- Minimize levels of toxic substances used during construction and maintenance
- Insulate cables and place them deep enough to limit electromagnetic field impacts
- Fund and promote of research and development projects to help reduce negative ecological effects and strengthen positive ecological effects of the OSW sector

Additional policy recommendations proposed in a 2025 position paper by BirdLife International that we would like to see considered in biodiversity plans for Nova Scotia's OSW sector include:

- A process for adaptive management throughout the project lifecycle based on the results of on-going environmental monitoring
- Commitment to funds earmarked for implementing adaptive management
- Plans to mitigate environmental harm that exceed the minimum legal requirements, and ideally go beyond standard good practice
- Funding commitments to protect or restore nature in alignment with regional priorities

Environmental monitoring and data management

The EAC sees the development of this new industry as an important opportunity to establish a robust environmental impact monitoring program. We hope to see developers offer and implement monitoring programs with guidance and enforcement provided by the Regulator in partnership with the federal government. Considerable work will need to be undertaken to identify how and which data should be collected to support a solid understanding of environmental change near wind farms over time (e.g., NatureScot's Advice on marine renewables development). Data will need to be biological and oceanographic to assess lifecycle impacts on various marine species. To the extent possible, program design should allow for cumulative impact assessments through findable, accessible, interoperable, reusable and open (FAIR/O) data. The CNSOER's WEA Spatial Data Viewer provides a solid foundation for this project, and data could be updated annually through submissions from government agencies, developers and independent researchers. A long-term plan for this resource and associated data standards will foster public trust as the industry grows over time. These recommendations align with and expand on those made in the RA, some of which are now on track:

- *Prepare guidelines and data sources for developers*
- *Create a shared repository of data and sources*
- *Recognize that responsibility for cumulative effects is shared and tiered*
- *Support for ongoing research on modelling and marine spatial planning*
- *Provide funding to Mi'kmaw organizations for research on adaptive management*
- *Prioritize and expand the general collection of environmental data, especially in the vicinity of the PDAs within the RA Study Area*

Summarized recommendations: All of the price and non-price criteria listed by the CNSOER should be given weight in the bid evaluation process, non-price criteria should represent 30% of the total points, high expectations should be set for long-term sector development and sustainability in Atlantic Canada; environmental management plans should follow the mitigation hierarchy framework, and should be adaptive, organized, and transparent.

3. Coexistence

Coexistence with fisheries and other ocean users should be a central principle in offshore wind development. This is a key recommendation from the RA which we are pleased to

see the Regulator taking seriously in the interest of a productive path forward for wind development. We were impressed to see the work of DFO, NRCAN, and fishing organizations within the RA resulting in WEAs designated in part to limit fisheries conflict from the outset. We commend the CNSOER on the establishment of the Fisheries Advisory Council and the development of a quality tool for fisheries data analysis in the WEA Spatial Viewer. A process including the further spatial refinement of fishing activity in and near WEAs plus regular input from FAC can act as the foundation for an iterative coexistence framework and create clarity for all parties.

We understand that there are plans for the CNSOER to commission a study on coexistence. We support this endeavour and we encourage the Regulator to learn from other jurisdictions on this topic. Through our own research on other countries with a more advanced OSW portfolio, we see fisheries access restricted for a number of gear types, especially with floating turbine installations. At the project level, proponents should address this reality head-on as part of required coexistence plans for each proposal. Furthermore, proponents should accept and integrate fishing industry feedback, and demonstrate their efforts to limit fisheries displacement as much as possible. As part of a broader framework for Nova Scotia, we would like to see a commitment to monitoring coexistence outcomes during and after turbine installments. This framework should also consider a range of outcomes for Nova Scotia's long-term 66GW Wind West aspirations, and indicate how ocean users should expect development to proceed.

In our own conversations with fishermen, the critical importance of baseline ecological data collection well in advance of OSW development has become increasingly clear. There are outstanding questions regarding the impact of turbines on: (1) localized oceanographic processes; (2) commercial species; and (3) species relevant to commercial food webs at various life stages. We suggest further collaboration with DFO and other agencies to ensure that these concerns are explored prior to, during, and following development. This effort should consistently involve the local knowledge of fishermen, and offer mitigation strategies where impacts are detected. Guidance on any prohibitive buffer zones that may be established near OSW developments during the planning, construction, or operation phases should also be prioritized. This issue has already been raised by some fishermen in the public, and will be especially important for areas where significant fishing activity is taking place within or just outside the boundary of WEAs. We would encourage the CNSOER to communicate regularly about coexistence planning to abate any unnecessary fisheries displacement concerns.

Summarized recommendations: Prioritize coexistence through a plan for Nova Scotia; involve fishing groups in coexistence planning as much as possible; require proponents to develop coexistence plans within project proposals; work with DFO, industry to address key coexistence research questions as soon as possible.

4. Fisheries Compensation

Per RA recommendations, we view the minimization of fishing displacement as precedent to fisheries compensation. However, the CNSOER should consider compensation where fishermen are restricted from fishing grounds or where existing livelihoods are otherwise

disrupted. We wish to see developers responsible for negotiating compensation with the Regulator and government agencies working to provide a “fair playing field” for negotiation and reasonable expectations on both sides. We hope that this industry-to-industry approach will help to limit public liability, protect fishermen against situations where fishing operations are arbitrarily displaced by OSW operations without redress, and avoid precedent for compensation in other, less appropriate contexts (e.g., marine conservation). In our view, it is important to provide a compensation framework that offers a transparent process for fishermen and OSW proponents to negotiate acceptable outcomes where real livelihood impacts exist.

We understand there are joint federal-provincial plans to study this matter in greater detail, and again we encourage learning from other jurisdictions where compensation regimes have demonstrated some buy-in from local fishing groups. The fishing industry provides a backbone for many of our province’s rural communities, and the disruption of fishing livelihoods and cultures must be treated with diligence and delicacy as part of a successful OSW industry.

Summarized recommendations: Consider fisheries compensation as secondary to minimizing fishing displacement; require proponents to compensate for fisheries displacement; create a transparent, fair process for negotiation between fishermen and OSW proponents to ensure clarity for all parties.

5. Fees for Bid Submissions and Successful Bidders

Stakeholders will want to know how the funds will be used (e.g., administrative fees to support CNSOER operations or funds set aside as a public contingency for decommissioning if developers abandon equipment or infrastructure). Transparency about how this money will be used is an opportunity to foster trust, and we are keen to learn more about the current thinking on this topic.

6. Community Benefits

The EAC applauds the CNSOER for soliciting suggestions and feedback on possible considerations for community benefit programs related to offshore wind development. It is widely acknowledged that community benefits created by offshore wind can build trust and ultimately ensure the delivery of successful commercial projects. The EAC’s engagement with prospective offshore wind developers has informed our understanding of the importance of community benefit sharing. Proponents have indicated a hesitancy to invest in regions which have not established broad social licence for OSW. Backlash from the fishing industry, coastal communities, and the broader public can quickly erode investment certainty for projects; these issues led to a moratorium on OSW development in Ontario which remains in place today. A recent discussion paper developed as part of the World Bank Group’s (WBG) Offshore Wind Development Program (ESMAP, 2024) puts the issue in stark terms:

"community benefit sharing is not merely seen as a 'nice-to-have' feature of offshore wind projects, but rather a core focus area of strategic value that can drive the sector's long-term growth."

Defining community benefit programs

According to the WBG, community benefit programs can be categorized as follows:

- Embedded community benefits which are inherent to the operation, including infrastructure upgrades associated with project development and job creation.
- Additional community benefits which include required or voluntary action. Typically these benefits include deliberate measures that involve additional human and financial resources and yield tangible local socioeconomic value pertaining to skills and livelihood benefits, public services and infrastructure, environmental stewardship, and shared ownership. It should be noted that the EAC favors required actions as it pertains to all benefits categories described above.

As outlined in the WBG's recent discussion paper on community benefits in OSW development, community benefits are not:

- Measures undertaken by companies to prevent and mitigate impacts required by legislation and/or lender policies and standards—such as community funds established to compensate for lost income to fishermen.
- Compensation provided to directly affected individuals.

Shared ownership and economic reconciliation

The EAC strongly recommends that the Regulator and government agencies prioritize community benefit sharing and opportunities to further community-owned energy development. The Government of Nova Scotia has already indicated an interest in exploring shared ownership models for major energy and infrastructure projects with the Wskijinu'k Mtmo'taqnuow Agency (WMA). The Wasoqonatl Transmission Line demonstrates the potential of major energy projects to strengthen social licence for energy development by advancing policy initiatives supported by the Nova Scotian public, including economic reconciliation. We hope the Province will engage with the WMA early and often to understand what role the organization – or individual Mi'kmaq communities which are constituent members – could play in the ownership of OSW projects, and how regulatory policy can facilitate shared ownership. EAC engagement with OSW policy experts in Europe has indicated that Nova Scotia has an opportunity to be a global leader in the application of economic reconciliation through OSW development.

Energy justice principles for community benefit planning

In addition to furthering economic reconciliation, EAC supports the incorporation of energy justice principles in community benefits, including:

- Procedural Justice: Communities are meaningfully involved in the creation, design, operation and governance of community benefits; this necessitates enhanced representation of stakeholders in formal decision making processes, local knowledge mobilization, as well as transparent and informed engagement with local communities about appropriate, relevant, and desired benefits.
- Distributive Justice: ensuring fair and equitable outcomes that address the uneven distribution of OSW infrastructure and activities, and their associated impacts (positive and negative).
- Recognitional Justice: all members of a community are enabled to participate, or are adequately represented, in processes relating to community benefits.

The EAC understands that offshore wind projects are highly cost sensitive, particularly in periods of supply chain constraint, high commodity prices, and high capital cost. Nevertheless, numerous examples of community benefits programs in the UK, EU, US, and Japan – as well as other countries – offer Nova Scotia an opportunity to learn from other jurisdictions which have sought to solidify social licence for offshore wind. Some notable examples include:

- EU Commission Guidelines, which state that governments can use non-price criteria – including community benefits – in offshore wind auctions to pursue objectives that are not captured solely by price (EU, 2024).
- Community benefits programs, including Ecosystem Funds, Learning Centres, and Offshore wind innovation hubs proposed by Norwegian developer Equinor as a result of engagement plans required by the the New York State Energy Research and Development Authority (NYSERDA), devised according to guiding principles and requirements for the OSW industry. (ESMAP, 2024)

Enforcement of benefit sharing requirements

In addition to developing guiding principles and requirements that outline meaningful engagement, the Regulator should consider non-compliance measures for operators failing to meet benefit-sharing commitments. South Africa's Renewable Independent Power Producer Programme (REIPPP) offers a model for how this could work. The government awards projects – including OSW – with preferred bidder status based on the bidder's pledged contributions to socioeconomic development at a weight of 30% of the score. Developers are required to spend 0.7-1.5% of the total project revenue on socioeconomic development and up to 0.7% on enterprise development; 12-20% of the project's employees must also be local community residents. Projects can be given half a termination point for having below 65% on any economic development obligation. If a power producer received more than nine termination points over 12 months, the government may terminate the power purchase agreement (Toledano et al, 2023). In any case, if a successful bid is influenced by benefit sharing commitments, we would like to see these commitments codified through planning, scheduling and enforcement measures within the conditions of the licence or another mechanism.

Summarized recommendations: Prioritize community benefits programs, and consider outlining a set of guiding principles and requirements for the offshore wind industry to meaningfully engage stakeholders while exploring the creation of guidelines for the use of non-price criteria – including community benefits – in offshore wind auctions. Consult with the WMA in considering the potential for shared ownership requirements in accordance with the principles of economic reconciliation.

7. Terms and Conditions for Submerged Land Licenses

Here, we endorse the recommendations of our colleagues at East Coast Environmental Law in their submission to the Call for Information.

8. Participant Funding Program

The Ecology Action Centre supports the implementation of both the introductory Participant Funding Program (PFP) in the Call for Information period and a larger PFP for CNSOER regulatory processes. As recommended in the final report of the RA, we support the establishment of a Participant Funding Program to last at least five years.

The implementation of a larger PFP, specifically including Indigenous peoples, is in alignment with the *Building Canada Act*: “that a process is established that allows for the active and meaningful participation of the affected Indigenous peoples”. Further to this point, and regarding treaty rights and other rights of Indigenous peoples, the Ecology Action Centre supports the RA recommendation to fund Mi'kmaw Ecological Knowledge Studies (MEKS), and the inclusion of Indigenous representation on the Board of CNSOER.

The introductory PFP has some points that are satisfactory, and others which could be improved upon. The conditions for eligibility, and the claiming process for the introductory PFP, are reasonable and are not overly burdensome. Currently, reimbursement for translation expenses for the written CFI submission but not for community engagements or consultations. We suggest that this translation reimbursement could be extended to provide translation throughout the consultation process and including at in-person or online events.

Further to the future implementation of a larger PFP, eligible expenses should be extended to include the hiring of technical and legal experts and contractors. It would be reasonable for stakeholders and rightsholders to engage outside expertise while participating in the consultation process. For this purpose, the PFP could provide up front funding to qualified applicants rather than reimbursement alone. As an example, participants in the Impact Assessment Agency of Canada PFP may, in some cases, be awarded funds in advance. We encourage the CNSOER to establish a larger PFP that provides funding options for participants, such as Indigenous stakeholders and rightsholders, that reduce up-front costs which may constitute barriers to participation.

Extending the PFP to a larger context would necessitate widely communicating about its availability with the public, stakeholders and indigenous communities and leaders. Where any engagement or consultation is sought, this PFP would need to also be adequately and clearly promoted with consideration of accessibility requirements.

9. Additional Thoughts

It is widely understood that investment certainty for OSW development in Nova Scotia will require a viable path-to-market for electricity sold beyond Nova Scotia. Accordingly, the construction of additional High Voltage Direct Current (HVDC) transmission lines must occur in tandem with OSW development to enable offtake agreements. Some of the considerations outlined in this document should also be considered with regard to the construction of HVDC transmission lines. Considerations for greater community participation in transmission infrastructure projects are outlined in a recent report published by the Northeast Grid Planning Forum, in which the EAC participated as a member of a working group.

Finally, beyond the commentary provided in this document, the EAC generally supports the implementation of RA's concluding recommendations. We encourage the CNSOER to return to those recommendations regularly for consideration throughout the development of regulations and call for bids procedures. In our view, much of what the RA concluded will remain central to the successful development of an OSW industry in Nova Scotia.

We thank you once again for the opportunity to contribute here. Please do not hesitate to reach out for further discussion on anything raised here.

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Submitted Online

Re: Sierra Club Canada Response to Call for Information NS25-1R

Dear Canada-Nova Scotia Offshore Energy Regulator (CNSOER),

Sierra Club Canada Foundation supports the advancement of a just renewable energy transition through responsibly developed offshore wind (OSW).

Sierra Club Canada Foundation is a national grassroots charity that empowers people to be leaders in protecting, restoring and enjoying healthy and safe ecosystems. Our membership is committed to achieving five ambitious goals in this crucial time: rapid adoption of 100% clean energy; protecting and restoring nature and endangered species; connecting all people with nature; living within the Earth's limited resources and advancing a circular economy; and environmental and social justice.

Our Atlantic Canada Chapter has been active in climate change and local opposition to fossil fuel infrastructure for over two decades. We currently advance the concept of energy democracy, the concept that energy systems should be controlled by and benefit the communities they serve. We see offshore wind as a game-changer for Atlantic Canada and Canada, if done right.

As the first attempt to initiate offshore wind in Canada, and given the geopolitical stakes of developing energy security in Canada and the climate change imperative, it is essential that this process sets a good precedent for subsequent steps toward successful implementation of offshore wind.

Thank you for your consideration of our comments and recommendations. Please do not hesitate to reach out for further discussion.

Identifying Parcels within the Government-designated Wind Energy Areas

We recognize site selection as a powerful tool in avoiding and mitigating environmental harm and social conflict with other ocean users. While this Call for Information is for an initial Call for Bids with a cumulative generating capacity of 3000-5000 MW, we emphasize the importance of parcel selection with long-term avoidance, mitigation, and coexistence in mind under the consideration of future opportunities.

We also encourage the CNSOER to continue engaging and collaborating with Rights Holders, stakeholders, and government agencies in collecting and refining data that will ultimately be used to justify parcel selection.

With respect to the factors listed:

- Proximity to shore;
    - We support the the Committee for the Regional Assessment of Offshore Wind Development in Nova Scotia's (the Committee) recommended 25-kilometre buffer along the provincial coastline and around Sable Island to protect sensitive coastal ecosystems, and minimize conflicts with Indigenous and non-Indigenous fisheries, and other coastal economies; we recognize that within this Call for Information, only the French Bank WEA includes areas within 20-25 kilometres from shore; incursions into the buffer zone that are between 20 and 25 kilometres from shore in the French Bank WEA must be reasonably and transparently justified through significant engagement, research, and analysis;
- Interactions with existing ocean users and activities, including the fishing and seafood industries;
    - Our comments on "proximity to shore" are also relevant here as one of the Committee's rationales for the 25-kilometre buffer was the avoidance of conflict with other ocean users and activities, including fisheries;
- Potential for adverse impacts to any established or asserted Aboriginal and treaty rights;
    - Our comments on "proximity to shore" are also relevant here as the Committee's rationale for its recommended 25-kilometre buffer included the avoidance of conflict with and potential adverse impacts to Indigenous fisheries, including commercial, moderate livelihood, and food, social, and ceremonial fisheries, as well as the protection of potential underwater archaeological and culturally important sites; we encourage and support the meaningful engagement of Indigenous peoples in identifying appropriate parcels, especially those which are within the 25-kilometre buffer;
- Sensitive benthic habitats, and Important marine and/or identified critical habitat;
    - Offshore wind developments should not be permitted in legally protected and conserved areas within the offshore, nor in areas slated for future legal protection and conservation; Marine Protected Areas, Marine National Wildlife Areas, Marine Refuges, Indigenous Protected and Conserved Areas, and other area-based conservation measures within Nova Scotia's offshore are important to Canada's commitments to marine biodiversity as well as to ocean industries and overall ecosystem health.

Potential Evaluation Criteria for Bids Submitted as Part of the Offshore Wind Call for Information

We understand the five bid submission categories listed to be "non-price criteria" - that is, criteria that bidders could be required to address in their bids and that would contribute to the CNSOER's qualitative assessment of the bids received. We support the inclusion of non-price criteria as a mechanism to advance environmental and social justice within the Call for Bids process, supporting a just transition to a sustainable energy future.

We are aware that research conducted by our colleagues at East Coast Environmental Law on the use of non-price criteria in OSW bidding processes in the US, UK, and EU indicate that having non-price criteria represent 25-30% of the total valuation of a bid, with the remaining valuation focusing on price, would be in line with practices elsewhere. We also support the inclusion of non-price criteria within this range.

With respect to the bid submission categories under consideration:

- Technical Expertise and Project Delivery Capacity;
    - We support giving greater weight to bidders that demonstrate technical expertise and project experience, and a responsible project plan that acknowledges and is prepared to address changing and/or emergent details in later and more specific stages, including during the Site Assessment Period, through processes that incorporate community engagement;
- Financial Strength and Project Delivery Readiness;
    - We support giving greater weight to bidders that demonstrate financial strength and project delivery readiness, and we agree that the listed factors of financial track record, net assets and equity ratio or funds under management, and project financing plan are all important;
- Engagement and Community Benefits;
    - We support the inclusion of non-price criteria that give weight to the preparation of engagement plans and inclusion of local community benefit plans that are inclusive of the Mi'kmaq of Nova Scotia, African Nova Scotian and African Descent communities, and other underrepresented and underserved groups;
    - We would also note that such plans should be inclusive of coastal communities that are in the direct vicinity of parcels, ports, and coastal tie-in locations, as well as inclusive of coastal communities that may not be in the immediate project footprint but that may be impacted by OSW development (e.g. may face impacts like an influx of construction workers, traffic congestion, etc.);
    - At the Call for Bids stage, we acknowledge the potential for communities to experience engagement or consultation fatigue, as well as the risk of wasting communities and bidders time and effort if the bidder is ultimately not successful in their bid; we would generally not think it advisable for the CNSOER to give more weight to bids that demonstrate firm community agreements in place, as this would encourage a practice of establishing such agreements in advance of bidding processes, to the potential detriment of local communities; rather, we would support more weight to bids that demonstrate early efforts to utilize meaningful engagement practices and commitments to ongoing, transparent, and informed community engagement and benefit planning;
    - Further, we support greater weight given to bids that commit to going over and above any minimum community engagement and/or community benefit requirements established by the CNSOER;
- Supply Chain and Workforce Development;
    - We support the inclusion of non-price criteria that give weight to supply chain development plans that support "establishing an offshore wind supply chain that is

inclusive, diverse, and equitable, creating opportunities for Mi'kmaq of Nova Scotia, African Nova Scotian, and African Descent communities, and other underrepresented and underserved groups";

- In addition, we support the inclusion of non-price criteria that gives weight to supply chain development plans that support establishing a strong regional OSW supply chain in Atlantic Canada, which already has OSW-related strengths in project management, engineering, secondary steel component fabrication, offshore installation and maintenance, iron ore and nickel mining, component storage and marshalling, and marine logistics and vessel services; we emphasize a focus on an Atlantic Canada regional supply chain given existing connections between the provinces and the demonstrated capacity of the other Atlantic provinces to support this new industry in Canada, notably that of Newfoundland and Labrador;
- We also support the inclusion of bidding criteria that give weight to the inclusion of workforce and training plans; in our view, strong workforce and training plans should:
  - include commitments to training and education institutions across Atlantic Canada to provide funding, guidance, curriculum, and apprenticeship pathways for new and existing industry-focused training programs; the wind turbine technician programs at Holland College and the College of the North Atlantic are examples of relevant existing programs;
  - include outreach initiatives to inform the Atlantic Canadian workforce of the opportunities, timelines, and requirements in OSW;
  - include upskilling initiatives to support workers to transition from other relevant sectors, such as oil and gas, mining, and onshore construction;
  - include outreach initiatives in K-12 schools to youth in Atlantic Canada to highlight career paths in OSW;
  - support inclusivity, diversity, and equity in the workforce, creating opportunities for Mi'kmaq of Nova Scotia, African Nova Scotian, and African Descent communities, and other underrepresented and underserved groups, such as rural workers and young adults;
- We are aware that stringent local content requirements have been cited as inhibiting development, a threat to project success due to high costs or the undersupply of equipment causing delays, and the reason for project cancellation across energy projects internationally, including to OSW in Taiwan; the CNSOER should be careful not to recommend unrealistic local content requirements; that being said, we strongly support setting high expectations for long-term sector development in Atlantic Canada and for diversity, equity, and inclusion in supply chain and workforce development;

- <u>Environmental Sustainability and Coexistence;</u>
  - We support the inclusion of non-price criteria that give weight to coexistence plans that are inclusive of existing ocean users and uses; in our view, the strongest coexistence plans would demonstrate commitments to making best efforts to co-develop measures that will support coexistence and minimize conflicts;
  - We support the inclusion of bidding criteria that gives weight to biodiversity plans that include references to proposed measures to protect, restore, conserve, and/or enhance biodiversity; in our view, such plans should:

- include references to the Mi'kmaw concept of *etuaptmumk*, "Two-Eyed Seeing", and should include commitments to engage with Mi'kmaq to develop and implement measures to protect, conserve, and/or enhance biodiversity;
- refer to the "mitigation hierarchy" and identify clear avoidance or minimization strategies related to environmental harms;
- include commitments to engage with marine conservation groups, academics, and other relevant stakeholders to support the development and implementation of measures to protect, conserve, and/or enhance biodiversity;
- include commitments to collect, maintain, and share datasets necessary to facilitate long-term ecosystem monitoring, environmental impact studies, and adaptive management;
- identify opportunities to have positive impacts on biodiversity through project development or restoration measures.

Coexistence

Coexistence of OSW with existing and future fisheries and other ocean users is a crucial principle for the sustainable development of the OSW sector in Nova Scotia. We commend the CNSOER on the establishment of the Fisheries Advisory Council. Further commitments and mechanisms to ensure ocean users have an active seat at decision-making tables, where appropriate, should be established. We support the meaningful involvement of fisheries and ocean users in the identification, design, operation and governance of coexistence strategies.

We reiterate our feedback on the 25-kilometre buffer from shore here; an important reason for the 25-kilometre buffer was to avoid or minimize conflicts with Indigenous and non-indigenous fisheries and other coastal activities.

We also emphasize the importance of baseline ecological data collection well in advance of OSW development. While OSW has been studied and success has been demonstrated around the globe, we acknowledge the uniqueness of Nova Scotia's marine and social ecosystems. As we collectively embrace a new energy sector, we all must understand the potential impacts before development and have access to information on the realized impacts throughout the lifecycle of OSW projects in our region. We support efforts to collaborate across government agencies, fisheries, and communities to ensure that concerns are explored and addressed prior to, during and following development. We also support transparency of findings and public education initiatives that empower people to be leaders in protecting, restoring and enjoying healthy and safe ecosystems.

Considerations for fisheries' compensation

We support the Committee's recommendation that fisheries compensation should be considered as a potential measure, but as a measure of last resort, with primary focus put on avoiding or minimizing conflicts with fisheries and cooperation between industry players to achieve common goals and benefits.

The fishing industry plays an important role in Nova Scotia, notably for rural communities who have long relied on fisheries for community sustainability. We support the meaningful involvement of fisheries stakeholders in determining, designing, operating and governing compensation frameworks.

Proposed fees for all bid submissions and successful bidders

We support transparency in determining these fees, and how CNSEOR and the Province will utilize them; stakeholders and the public should have access to this information.

We are aware that, in the UK, 50% of revenues received by the Crown Estate from the leasing of the seabed and rent from other marine activities was provided to the Coastal Communities Fund, which was designed to support the sustainable economic development of coastal communities. Furthermore, the Scottish Government committed to providing coastal community authorities 100% of the Crown Estate revenue from marine activities out to 12 nautical miles, including offshore renewables. We recommend that the Receiver General for Canada, the Government of Canada, the Government of Nova Scotia, and/or CNSOER establish a fund using the fees for bid submissions and successful bidders to directly support coastal communities and create an arms-length, multi-stakeholder governance model to administer the fund.

Principles listed in the Accord Acts

We support consideration and adherence to the principles listed in the Accord Acts.

We see the first two principles as being addressed in large part by the non-price bid criteria and the subsequent terms or conditions of the submerged land license that should uphold the commitments made in a bid submission; we would reiterate our feedback on supply chain and workforce development above in that regard.

Similarly, we see the third of the listed principles as being addressed in part by the non-price bid criteria and the subsequent terms or conditions of the submerged land license that should uphold the commitments made in a bid submission; we would reiterate our feedback above on engagement and community benefits, and coexistence in that regard. Furthermore, we emphasize the importance of considering effects on fishing activities during parcel identification and selection; parcels should be identified to avoid or minimize conflicts with fisheries, and feedback from fishers on this matter should be given importance.

Community Benefits

Community benefit programs are critical to OSW as they bridge the gap between inter/national and provincial sustainability goals and the local social, environmental, and economic impacts experienced by host communities. Given the variety of definitions that fit within community benefit programs, we

understand that community benefit programs that the CNSOER might consider to be comprised of three parts:

1. Community Benefit Investments (Investments) - Can include a plethora of investments in the community aimed at achieving specific outcomes, such as improving local health care infrastructure, preserving cultural heritage and traditions, providing local upskilling programs, conserving nature, etc.
2. Community Benefit Funds (Funds) - A direct payment, either made one-off or structured throughout the duration of the project, made by a developer to the relevant community.
3. Shared Ownership Opportunities - any structure which involves a community group as a financial partner throughout the lifetime of a project.

To note, it is our view that compensatory payments needed for development, that is, payments that are made in compensation of loss or damage caused by an OSW development, fall outside of the scope of and are in addition to community benefit programs.

In submitting a bid that meets and exceeds the non-price criteria categories above, developers may put together a community benefits plan that includes investments, funds, and/or shared ownership opportunities. However, our research on community benefit schemes in the UK, EU, US, and Japan indicate that without regulatory requirements and/or frameworks for the development of community benefit programs, communities may receive significantly lower benefits compared to onshore projects despite experiencing similar impacts, communities engaged by different developers across the WEAs may see significant variation in the level of benefits despite project similarities, and communities may be harmed by inadequate engagement processes that promote an unbalanced power relationship between stakeholders and the developer. **As such, it is our view that the CNSOER should recommend a minimum standard requirement for community benefits, and the creation of planning guidelines to support developers preparing a submission for a Call for Bids and to support communities to engage in benefit planning.**

It is our view that a minimum requirement and community benefit planning guidelines hold the purpose of supporting a fair and equitable standard of distribution of benefits across communities impacted (positively and negatively) by OSW developments; the requirement and guidelines should not be prescriptive to the specific benefits or outcomes that local communities might receive. We support the incorporation of energy justice principles in community benefits:

- Procedural Justice: Communities are meaningfully involved in the creation, design, operation and governance of community benefits; this necessitates enhanced representation of stakeholders in formal decision-making processes, local knowledge mobilization, as well as transparent and informed engagement with local communities about appropriate, relevant, and desired benefits;
- Distributive Justice: ensuring fair and equitable outcomes that address the uneven distribution of OSW infrastructure and activities, and their associated impacts (positive and negative);
- Recognitional Justice: all members of a community are enabled to participate, or are adequately represented, in processes relating to community benefits.

In recommending a minimum standard community benefit requirement, the CNSOER might consider a minimum funding amount per installed megawatt per annum, index-linked for the operational lifetime of

a project. For example, in the UK, where community benefits funds are voluntary, the European Offshore Wind Deployment Centre project, the Burbo Bank Extension project, and Ørsted's Hornsea Project One provide community funds of £1500, £865, and £260 per MW pa, respectively. We acknowledge that these rates are well below the recommended £5000 per MW pa recommended in Scotland for onshore wind projects. The CNSOER should seek to address a discrepancy such as this in recommending a minimum requirement - possibly through the additional benefits provided under the non-price bid criteria or other investments proposed by bidders, while also ensuring that the minimum requirement is not unrealistic for bidders. Moreover, as stated above, any minimum standard requirement should not impose specific benefits or outcomes on local communities, and communities should be meaningfully involved in the development of all community benefit plans.

In recommending the creation of community benefit plan development guidelines for OSW development, the CNSOER, with input from rights holders and stakeholders, should consider including, but not limited to, guidance on:

- The purpose and role of community benefit programs, specifically in the OSW sector;
- Principles that promote transparency, equity and accessibility, informed engagement, inclusion of stakeholders in formal decision-making processes, local knowledge mobilization, accountability, and community empowerment;
- Best practices for community engagement throughout the lifecycle of an OSW development;
- Identifying who is considered "community" in relation to OSW development, including offshore and onshore infrastructure, in Nova Scotia;
- Descriptions of the kinds of community benefits that an Interest Owner may consider, including investments, funds, and shared ownership models, as well as potential delivery mechanisms;
- Implementing community-led and/or independent fund management;
- Supporting local decision-making, including guidance on building capacity for participatory governance and administration models;
- Community benefit planning that incorporates strategic community planning to promote long-term outcomes from community benefits for communities;
- Opportunities for funds from multiple OSW developments to be pooled and allocated to strategic community or regional priorities, including guidance to communities for achieving this within/through their engagement with, potentially, various developers; and
- Co-developing benefit timelines, reporting criteria, impact measurement, and accountability measures, including regular reporting schedules on benefits.

Terms and conditions to be potentially included in the draft Submerged Land Licence

With respect to some of the potential terms and conditions for inclusion in the Submerged Land Licence:

- <u>Submerged Land Licence Periods;</u>
    - We support the CNSOER's proposed use of three periods for submerged land licenses;
    - As OSW is an emerging sector in Nova Scotia, we recommend that the Site Assessment Period be extended to up to ten years to help develop foundational knowledge and best practices, as well as to support communities to establish their own processes and best practices for meaningful engagement with the OSW sector;

    - With respect to the extension of periods or the term of an SLL, we recommend that the CNSOER disallow extension of existing licenses without public notice and transparency to rights holders, stakeholders, and the public, and provide opportunities for public engagement in the decision to extend or re-issue a license to the same licensee; any fees or fines for not carrying out agreed upon activities within a set time frame of a licence should be required, and instituted so they can not be waived by the CNSOER;
- Termination;
    - We support the CNSOER's proposed conditions for termination; however, we would request that failure to comply with "Any plan approved by the regulator" be specified to include the commitments and initial plans made during the Call for Bids process; non-price criteria that influence the selection of successful bidders, including those related to project delivery, engagement and community benefits, supply chain and workforce development, and environmental sustainability and coexistence, should be made legally binding with Interest Owners required to fulfill those commitments and advance their plans;
- Rental and Levies;
    - We would reiterate our comments above on proposed fees; we support transparency in determining these fees and how they will be utilized; we would also recommend that the Receiver General for Canada, Government of Canada, Government of Nova Scotia, and/or CNSOER establish a fund using rentals and levies to directly support coastal communities and create an arms-length, multi-stakeholder governance model to administer the fund; a fund established from rental and levies revenue may be in addition to or as an alternative to a fund established from fees collected during the bidding process;
- Financial assurance;
    - We support the proposed timeline for Interest Owners to submit financial assurance to cover decommissioning costs, and the requirement for regular updated reports to adjust amounts as needed;
- Engagement;
    - We support the CNSOER's proposed engagement requirements; as noted above, we expect that commitments and initial plans made within the non-price criteria of an Interest Owners bid will be incorporated into the terms and conditions of a SLL;
- Required plans;
    - We generally support the requirement for Interest Owners to submit a coexistence plan, full and fair opportunity plan, fisheries plan, community benefits plan, and biodiversity plan; we recognize that these plans should align with the plans submitted in the Call for Bids process as part of the non-price criteria categories, and expect that a requirement under the SLL would see the initial plans expanded and improved upon as the Interest Owner conducts deeper engagement and studies; however, if initial plans are not submitted by a bidder as part of their submission to the Call for Bids, they should be required to submit the aforementioned plans under the SLL.

Participant Funding Program

We support the implementation of both the introductory Participant Funding Program (PFP) in the Call for Information process and a larger PFP for the CNSOER regulatory processes. We support the establishment of a PFP for all public engagement opportunities, direct consultations with communities, and regulatory processes conducted by the CNSOER.

For a larger PFP, we recommend that the CNSOER align their application and fund distribution processes with Canada's Impact Assessment Agency's PFP, rather than continue with an expense reimbursement model, to more effectively reduce barriers to participation. In doing so, a PFP should ensure that advance notice is communicated widely and with consideration to accessibility for diverse audiences, and that it provides a clear timeline and program details to Indigenous communities, the fishing sector, the public, and other stakeholders so that they have adequate time to apply, receive funding, and meaningfully participate.

A larger PFP should also consider the following as eligible expenses:

- Consultant expenses for rightsholders and stakeholders to contract technical, legal, and other relevant expertise;
- Translation expenses throughout the engagement and consultation process, including at in-person or online events;
- Accessibility expenses throughout the engagement and consultation process, including at in-person and online events;
- Honorarium for other Indigenous knowledge holders and community leaders, as deemed appropriate by Indigenous communities;
- Staff time and the administrative expenditures of participating organizations, if that time is not already supported by other funding.

In addition, we support the Regional Assessment's recommendation to fund Mi'kmaw Ecological Knowledge Studies (MEKS), and to support fishers in implementing new processes.

Additional feedback and comments

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The CNSOER welcomes your suggestions and feedback on possible considerations for community benefits programs related to offshore wind development.

I have attached a report titled 'Community Benefits of Offshore Renewable Energy Projects: Insights for the Canada-Nova Scotia Offshore Area', which details my comments in full. I will post the Executive Summary here, but please see the enclosed report for the full details.

Executive Summary

Canada and Nova Scotia are at a critical juncture in the development of offshore renewable energy (ORE). As the development of offshore wind projects begins, Canada and Nova Scotia should ensure that local communities share in the economic, social, and environmental benefits. A robust community benefits framework is essential to ensure that these projects not only contribute to the province's clean energy goals but also drive inclusive economic growth and community resilience.

This report outlines the key considerations for a benefit framework for Nova Scotia, focusing on four key areas: economic (job creation, local supply chains, and Indigenous partnerships), social (inclusive engagement and equitable benefit-sharing), environmental (emission reductions, ecosystem co-benefits, and climate resilience), and educational (workforce training and research collaborations). By embedding these benefits into ORE projects, Nova Scotia can deliver long-term prosperity, address regional disparities, and build community trust.

Drawing lessons from Denmark's cooperative ownership model and Scotland's community benefit fund approach, the report highlights the importance of ensuring local engagement and transparent benefit-sharing. Denmark's requirement for community co-ownership and Scotland's commitment to ongoing community funds provide valuable, scalable models for the Canada-Nova Scotia offshore area. However, challenges like regulatory uncertainty, access to markets, grid capacity limitations, and early-stage infrastructure must be addressed to unlock the full potential of these models.

The report concludes that for Nova Scotia to lead in sustainable and equitable energy development, community benefit obligations should be embedded in legal agreements such as terms and conditions of submerged land licenses. This will guarantee that community benefits are delivered consistently, ensure long-term accountability, and provide local communities a direct stake in the success of the province's renewable energy future. This approach will help foster broad-based support for ORE projects, ensuring that Nova Scotia's energy transition benefits all its residents.

The CNSOER welcomes your suggestions and feedback on possible terms and conditions for the draft Submerged Land Licence.	The attached report 'Community Benefits of Offshore Renewable Energy Projects: Insights for the Canada-Nova Scotia Offshore Area' includes commentary and recommendations on how to include community benefits in the terms and conditions of submerged land licenses.
Attach your comments here - Microsoft Word or Adobe PDF.	

NOVA HIBERNIA CONSULTING

COMMUNITY BENEFITS OF OFFSHORE RENEWABLE ENERGY PROJECTS:

INSIGHTS FOR THE CANADA-NOVA SCOTIA OFFSHORE AREA

Report Prepared by Nova Hibernia Consulting
January 2026

Alex Miller
Nova Hibernia Consulting

1. Executive Summary

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This report outlines the key considerations for a **benefit framework** for Nova Scotia, focusing on four key areas: **economic** (job creation, local supply chains, and Indigenous partnerships), **social** (inclusive engagement and equitable benefit-sharing), **environmental** (emission reductions, ecosystem co-benefits, and climate resilience), and **educational** (workforce training and research collaborations). By embedding these benefits into ORE projects, Nova Scotia can deliver long-term prosperity, address regional disparities, and build community trust.

Drawing lessons from **Denmark's cooperative ownership model** and **Scotland's community benefit fund approach**, the report highlights the importance of ensuring **local engagement** and **transparent benefit-sharing**. Denmark's requirement for community co-ownership and Scotland's commitment to ongoing community funds provide valuable, scalable models for the Canada-Nova Scotia offshore area. However, challenges like **regulatory uncertainty, access to markets, grid capacity limitations,** and **early-stage infrastructure** must be addressed to unlock the full potential of these models.

The report concludes that for Nova Scotia to lead in **sustainable and equitable energy development**, community benefit obligations should be embedded in **legal agreements** such as **terms and conditions of submerged land licenses**. This will guarantee that **community benefits are delivered consistently**, ensure long-term accountability, and provide local communities a direct stake in the success of the province's renewable energy future. This approach will help foster broad-based support for ORE projects, ensuring that Nova Scotia's energy transition benefits all its residents.

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About Nova Hibernia Consulting:

Nova Hibernia Consulting helps organizations understand and navigate the socio-political dimensions of renewable energy and sustainability transitions, providing rigorous, interdisciplinary research that informs better decisions and future direction. Nova Hibernia Consulting is run by Alex Miller. Alex has held positions as a Research Fellow on EU-funded research projects and as a Policy Analyst with Natural Resources Canada. Alex is completing a PhD in Environmental Planning at Queen's University Belfast, where his research focuses on renewable energy policy in Canada and Northern Ireland. Alex holds an MSc in Water Science, Policy and Management from the University of Oxford and a BA (Hons) in Political Science and Aquatic Resources from St. Francis Xavier University.

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2. Introduction

Offshore wind energy presents a significant opportunity for Canada and Nova Scotia to benefit from the transition from fossil fuels to a cleaner, more sustainable energy future. By harnessing the province's world-class offshore wind speeds, which rival those of the North Sea, where the global offshore wind industry began, Nova Scotia is poised to tap into one of the fastest-growing energy sources in the world (Government of Nova Scotia, 2025). Offshore wind can help meet both local and global demand for cleaner energy options, playing a crucial role in the fight against climate change. Moreover, this renewable energy source is integral to supporting Nova Scotia's broader clean energy goals, including in its efforts to develop a thriving green hydrogen sector.

The benefits of offshore wind energy for Nova Scotia extend beyond just providing a clean alternative to fossil fuels. This renewable energy source can support significant economic development within the province, generating good-paying jobs in manufacturing, construction, and operations, as well as fostering the growth of a local supply chain (Alikhani, 2025). Offshore wind also aligns with Nova Scotia's climate change goals, as it produces minimal greenhouse gas emissions and contributes to reducing the province's carbon footprint. By developing offshore wind farms, Nova Scotia can strengthen its energy security, reduce its reliance on imported fuels, and drive the expansion of clean energy industries, which will be essential for building a sustainable, green economy for the future.

Nova Scotia has a successful track record of incorporating community ownership and public participation into renewable energy projects, particularly through its innovative Community Feed-in Tariff (COMFIT) program. This policy framework mandated that renewable energy developments must involve public and community ownership, with at least 51% of wind energy projects being owned by municipalities, local citizens, or community groups. This requirement was a cornerstone of the province's Renewable Electricity Plan (REP), introduced in 2010, which aimed to enhance local control over energy production while promoting sustainable development. The COMFIT program set attractive, guaranteed prices for renewable energy, incentivizing local participation and ensuring that profits, and decision-making power, remained within the community (Walker, 2017).

This focus on community ownership not only prioritizes distributive justice but also empowers local residents to have a voice in the energy transition. It has led to higher levels of community participation in project siting and decision-making, as stakeholders are directly involved in the development process. Prior to COMFIT, other community ownership models such as Community Economic Development Investment Funds (CEDIFs) also required at least 51% public and community ownership, further embedding the principle of local control in the province's energy landscape. A significant portion of wind projects in Nova Scotia were developed under these programs, ensuring that local communities, not just external developers, benefit financially and strategically from renewable energy initiatives. These policies provide a foundation for Nova Scotia's opportunity to create inclusive and sustainable energy solutions that foster long-term community engagement and empowerment.

Research Objectives

1. Identify and categorize potential benefits from ORE development.
2. Examine leading European approaches to community benefit-sharing.
3. Assess their applicability to the governance and policy context of the Canada-Nova Scotia offshore area.
4. Recommend strategies to embed community benefits into policy and project approval frameworks.

Methodology

The study employs a qualitative, desk-based approach that combines policy and literature analysis with comparative case studies. The primary goal is to identify practical lessons and insights that can inform the design of community benefit policies. To ensure a comprehensive understanding, the analysis draws on a range of sources, including academic publications, government reports, policy frameworks, and evaluations of community benefit programs in Europe. The focus is on understanding how community benefits have been structured and implemented in other regions, with the aim of applying these findings to the Canada-Nova Scotia offshore area's unique context.

3. Literature Review

Canada's ORE sector is in its early stages of development, with Nova Scotia positioned as a key leader in advancing offshore wind energy projects. The provincial government has identified offshore wind as a critical component of its strategy to decarbonize the energy system, reduce greenhouse gas emissions, and contribute to long-term economic growth. The Government of Nova Scotia views offshore wind as a major opportunity to both meet the province's renewable energy targets and stimulate job creation within the clean energy sector (Government of Nova Scotia, 2025). Offshore wind is particularly significant for Nova Scotia, as it offers a vast, underutilized resource off the province's coasts and provides a path toward sustainable energy generation that can also support the development of associated industries, such as green hydrogen production and local supply chains.

The Offshore Wind Roadmap is a central piece of the province's strategic framework for developing offshore wind capacity. This roadmap outlines pathways to achieve up to 5 GW of offshore wind capacity by 2030, which would significantly contribute to Nova Scotia's energy goals and its commitment to tackling climate change (Government of Nova Scotia, 2025). Efforts outlined in the roadmap focus on identifying and designating suitable marine areas for offshore wind development, ensuring that projects are placed in locations that minimize conflicts with other marine uses, such as fisheries and shipping. A key priority of the roadmap is ensuring environmental and community safeguards are in place, so that offshore wind projects can be developed in a sustainable manner that protects marine ecosystems and ensures that local communities benefit from the transition to clean energy.

3.1 Community Benefits and Community Ownership

Community benefits and community ownership play a critical role in the development of offshore wind projects, particularly in ensuring local support and fostering long-term sustainability. By providing communities with tangible economic, social, and environmental benefits, offshore wind projects can help mitigate concerns over potential disruptions, such as visual impact or changes to local industries (Rudolph, 2018). Community benefit funds, which may include funding for local infrastructure, educational programs, or environmental initiatives, ensure that the positive impacts of renewable energy development are shared broadly within the local area. Community ownership takes this a step further by allowing residents to invest in and co-own the energy projects, ensuring that profits from these developments remain within the community, while also giving locals a direct stake in the success of the projects. This ownership model not only increases public acceptance and trust but also creates a sense of pride and involvement in the energy transition. Furthermore, it can provide financial returns that help to support community development in perpetuity, contributing to a lasting legacy of local empowerment and sustainable growth. In regions like Nova Scotia, where offshore wind is a promising avenue for economic diversification, fostering community benefits and ownership can be pivotal in ensuring that the transition to renewable energy is equitable, inclusive, and beneficial to all stakeholders.

Communities should experience tangible and lasting benefits from their involvement in the transition to a clean energy system. Community benefits can take various forms, including both monetary contributions, such as funding for local projects, and non-monetary contributions, such as in-kind support for community infrastructure or donations of equipment. These benefits can be used to support a range of local priorities, including tourism, education, and skills development, enhancing the local economy, society, and environment. These benefits go beyond the immediate advantages of development, such as job creation, to provide long-term value for communities. It is worth noting that community benefit funds can be interpreted as a bribe or cynical attempt to sway the views of communities in favour of a particular project, and as such community benefit funds must be planned and managed with transparency and fairness in mind (Rudolph et al, 2018; Määttä, 2024).

To maximize the impact of these community benefits, it is essential that the funds be flexible and tailored to the specific needs and preferences of local communities. This approach would help ensure a lasting legacy and reach a broad pool of beneficiaries. Should the decision be made to mandate community benefit funds, the government should require developers to work closely with local people to deliver benefits that are best suited to each community's unique context, rather than applying a one-size-fits-all model.

The concept of energy justice has gained increasing attention in recent years, emphasizing the importance of justice and fairness in relation to energy policy, energy production and consumption: “how we distribute the benefits and burdens of energy systems is preeminently a concern for any society that aspires to be fair” (Sovacool, 2014, p.15). Community benefits are critical to the social acceptance and the long-term sustainability of offshore projects. When residents, Indigenous groups, and municipalities share in the economic and social gains, projects

are more likely to succeed. Conversely, when communities perceive few direct benefits, trust erodes, and development faces delays. Embedding community benefits into project planning enables mutual value and local support.

3.2 Rationales for Community Benefits from Offshore Renewables

The introduction of community benefits from ORE projects is a relatively new concept, and analysis by Rudolph et al (2018) suggests that these benefits are being delivered for a variety of reasons. These rationales can be broadly categorized into three main approaches: voluntarism by developers, statutory obligations imposed by authorities, and community-driven pressure for direct benefits.

Firstly, voluntarism by developers reflects a desire to act as a good neighbour and engage with local communities in a responsible and ethical manner. In the early stages of offshore wind development, particularly in the UK's Round 1 offshore projects, developers introduced community benefit schemes to replicate similar models used for onshore wind farms. Since there are no formal regulations requiring such schemes, these packages have typically been arranged on a voluntary basis between the developer and affected communities. Notable examples include the Rhyl Flats (see inset below), Robin Rigg, North Hoyle, and Scroby Sands offshore wind farms. These initiatives are often seen as part of best practices in community engagement, where developers seek to establish positive relationships with the communities that may be affected by the projects.

Rhyl Flats Wind Farm
Rhyl Flats is a 25 turbine, 90 MW wind farm located in Liverpool Bay, approximately 8 kilometres northeast of Llandudno in North Wales. The wind farm produces enough clean energy a year to power 70,000 households, equivalent to cutting 1.7 million tonnes of CO2 emissions a year. The wind farm began producing power in December 2009. Rhyl Flats Offshore Wind Farm community benefit funding available for community projects across parts of the North Wales coastline. The fund in was launched in 2009 with a base level of £90,000 and is index linked each year in line with inflation which will amount to a fund of over £2 million over the operational lifetime of the wind farm (RWE, n.d.).

Secondly, statutory obligations imposed by authorities represent a less common but significant reason for the introduction of community benefits. In some cases, regulations have been put in place to make community benefits a condition for project approval, or at least a material consideration in the planning process. For example, in Massachusetts, a recently proposed scheme mandates that developers provide community benefits in exchange for community support. This is formalized through legally binding contracts between developers and community-based organizations (CBOs), where the developer commits to providing specified benefits, and the CBOs pledge to support the project through the governmental approval process. Similarly, in Denmark, regulations require that at least 20% of the ownership of wind farms be offered to local communities and adjacent municipalities, a requirement that applies to both offshore and

nearshore sites. In Scotland, although there is no legal obligation to offer community benefits, the Highland Council has introduced a voluntary policy to guide developer contributions and regulate the distribution of benefit payments from offshore renewables (Highland Council, 2013).

Finally, community demand has played a crucial role in the emergence of community benefits. In some instances, community benefit agreements have been introduced in direct response to lobbying efforts by local groups seeking compensation for the impact of offshore wind farm development. For example, the introduction of compulsory community benefit agreements in Massachusetts stemmed from requests made by communities to the Bureau of Ocean Energy Management (BOEM), asking that those most affected by offshore wind projects receive direct benefits. Similarly, local communities in the UK, particularly in relation to the Walney Offshore Wind Farm proposal, have voiced similar demands for community benefits. These community-driven pressures influence how the benefits are conceptualized and delivered, highlighting the importance of ensuring that the interests and concerns of local populations are addressed in the development process.

The rationales for delivering community benefits in offshore wind projects are shaped by a combination of developer goodwill, regulatory requirements, and community advocacy. These varying motivations influence how benefits are structured and implemented, affecting the ways in which local communities engage with and benefit from ORE developments.

European Leadership

European countries, particularly Denmark and Scotland, have decades of experience integrating community interests into offshore wind development. Denmark pioneered community co-ownership models, requiring developers to offer local residents shares in offshore projects. Scotland established community benefit fund policies for renewable projects, ensuring predictable reinvestment in local development priorities.

Denmark

Following Germany, Denmark is the country with the most significant offshore wind installed capacity in Europe. Denmark was the first country that pursued the possibility of developing wind energy after the 1973 oil crisis and it was able to install the first commercial turbine in 1979. The world’s first offshore wind farm was constructed off the coast of Vindeby in Danish waters in 1991. Denmark currently has 2.7 GW installed offshore wind capacity, and the Danish government has set a target to add 4 GW to increase the target for 2030 from 8.9 GW to 12.9 GW (Alikhani, 2025).

Community and local ownership:

Denmark has established itself as a global leader in shared ownership of renewable energy projects, particularly in the wind energy sector. This success is largely due to the country's *Renewable Energy Act 2008*, which mandates developers to offer local residents a 20% share in new wind projects. The share offer targets residents living within 4.5 km of the wind turbines or

within the relevant municipality, ensuring that the community has a financial stake early in the development process.

The Danish model encourages collaboration between developers, local communities, and utilities to facilitate grid connections and provide technical and financial support. Community involvement is further strengthened through public consultations, where developers inform residents about the opportunity to purchase shares. To help overcome financial barriers, the Danish government offers financial incentives such as low-interest loans and grants, making investments more accessible to local residents. This model has proven successful, with approximately 52% of Denmark's wind capacity being community-owned.

> **Middelgrunden Offshore Wind Farm**
> The Middelgrunden offshore wind farm (40 MW, costing €49m in 2000 prices) was developed between Copenhagen Energy (the local utility, owned by the Municipality of Copenhagen) and the Middelgrunden Wind Turbine Cooperative. Middelgrunden Cooperative was the world's largest wind turbine cooperative. The cooperative's ownership extended to 40,500 shares, which by October 2000 were all privately held, "primarily from the local area". In 2005, only 100 shares were owned by people outside Denmark. Each share was sold for €567. Estimates of the financial return show that the project paid an annual return to shareholders of 7.5% (Allan, 2013).

While the community ownership model has fostered greater acceptance and support for wind energy projects, there have been criticisms. Some residents have expressed dissatisfaction with the financial returns, which were lower than anticipated. Additionally, concerns over the transparency of the decision-making process and the distribution of benefits have surfaced, with some residents feeling that the benefits and burdens of wind projects are not shared equally.

Overall, Denmark's approach to community ownership in wind energy has played a key role in increasing public support for renewable energy, though ongoing efforts are needed to address concerns around fairness and transparency.

Scotland

In 2023, Scotland had 15.3 GW of installed renewable capacity and generates more clean power over a year than the country's total electricity demand. With an ambition to reach net zero by 2045, this capacity is set to scale up considerably. Onshore, communities impacted by renewable projects receive voluntary financial contributions to support local development. The government has laid out guidance on good practice principles that inform the ways in which community funds could be distributed. These funds are already helping communities address a variety of issues ranging from fuel poverty and employment to infrastructure development, while also aligning with national sustainability goals, captured within the Scottish national performance framework (Kumar and Yunda, 2025).

Community and local ownership:

Scotland has seen significant growth in community and locally owned renewable energy projects, particularly since the 1990s and early 2000s. Today, community-owned projects span the country, from the borders to Shetland. The Scottish Government supports shared ownership through its Good Practice Principles, which encourage developers to offer shared ownership opportunities as standard practice for new projects, as well as for repowering and extensions of existing ones. This approach is designed to foster long-term economic and social benefits, strengthen community capacity, and enhance corporate social responsibility.

Shared ownership is also integral to achieving Scotland's ambitious goal of delivering 2GW of community and locally owned energy by 2030, a target that includes shared ownership projects. To facilitate this, the Scottish Government's Community and Renewable Energy Scheme (CARES) provides extensive support throughout a project's lifecycle. This includes access to funding, contractors, and expert guidance on financial, legal, and project management matters. The program also offers resources like toolkits and guides to help communities make informed decisions about shared ownership opportunities (DESNZ, 2025).

In addition, the Scottish National Investment Bank (SNIB) plays a key role by investing in community and shared ownership projects (DESNZ, 2025). SNIB seeks to deliver social, financial, and environmental returns, and works in partnership with other investors to crowd capital into these opportunities.

Scotland's emphasis on shared ownership not only empowers communities but also plays a vital role in achieving the country's renewable energy goals. Through careful support and investment, Scotland is building a strong foundation for future community-led energy projects.

Community benefit funds:

Community benefits are a voluntary initiative in Scotland and rely on collaboration between developers and community stakeholders (Määttä, 2024). The Scottish Government formalised Good Practice Principles for community benefits in 2014 (Scottish Renewables, 2025). These principles include a recommended benchmark of £5,000 per installed megawatt per year, index linked. For example, a community hosting a 50MW onshore wind farm would receive £250,000 in community benefit for each year of the project's operational lifetime. Since 1990, renewable energy developers have invested more than £200 million of community benefit funding into Scottish communities, most of which has come from onshore wind farms (Scottish Renewables, 2025).

The Scottish Government recently consulted on community benefits from net zero energy developments as part of a review of good practice principles for onshore and offshore renewable energy. In the Scottish Energy Strategy, its vision for the future energy system in Scotland, the Scottish Government sets the expectation that energy developers should continue to offer meaningful community benefits in line with its Good Practice Principles (Scottish Government, 2018). Concern over bribery perceptions has been a long-standing concern in the Scottish

community benefit debates. The Scottish government has separated community benefits from the planning system to address this concern. This is also one of the key reasons why community benefit arrangements remain voluntary (Määttä, 2024).

These principles recommend that community benefit packages for onshore wind developments should have a value to the equivalent of at least £5,000 per installed megawatt per annum and be index-linked for the operational lifetime of the project. In 2024, the average community project received £5100 per MW of installed renewable capacity per year, totalling £26 million in Scotland (Kumar and Yunda, 2025).

Conceptual Frameworks for Benefits

Studies of European ORE projects have demonstrated several positive outcomes that can offer valuable lessons for Nova Scotia. One of the most significant benefits has been the creation of stable, well-paying jobs in coastal regions, providing long-term employment opportunities that contribute to local economic stability. Additionally, these projects have helped to strengthen community trust and engagement, as they often involve local stakeholders in decision-making processes and benefit-sharing arrangements, fostering a sense of ownership and collaboration. Environmental outcomes have also been notable, with the integration of environmental protection and monitoring measures, ensuring that projects are developed in a way that minimizes their impact on local ecosystems while promoting sustainable practices. Furthermore, these projects have led to expanded research and training opportunities, often through partnerships with universities and research institutions, helping to build local expertise and providing a skilled workforce for the renewable energy sector. These outcomes underscore the potential for ORE to contribute not only to environmental sustainability but also to economic and social development in coastal communities.

Rudolph et al. (2018) provide a comprehensive overview of the different forms of benefit from offshore renewables (See Appendix A). For the purpose of this report, benefits from offshore renewable projects can be categorized as:

1. Economic benefits: employment, supply chain opportunities, community revenues.
2. Social benefits: community infrastructure, cultural investments, participatory decision-making.
3. Environmental benefits: emission reductions, ecosystem monitoring, climate adaptation measures.
4. Educational and capacity-building benefits: training programs, scholarships, and research funding.

Understanding these broad benefits, and how to channel them through appropriate funding arrangements, agreements, and governance systems is a key task of government, regulators, and developers as the offshore wind potential of the Canada-Nova Scotia offshore areas are developed.

4. Findings

4.1 Benefit Framework

As the CNSOER moves forward with regulating the development of ORE projects, it is critical to ensure that these projects deliver broad and lasting benefits to the local communities. The benefit framework should be comprehensive, encompassing economic, social, environmental, and educational dimensions. This approach ensures that the benefits are distributed equitably across various sectors of society, contributing not only to Canada's energy goals but also to broader social and economic development. Below are potential benefit areas that could form the foundation of a community benefits framework.

Economic Benefits

The economic impact of ORE projects is a significant consideration, particularly in terms of job creation and regional economic development. It can also enhance energy security by reducing dependence on imported fuels and diversifying energy sources (Alikhani, 2025). Job creation and local hiring commitments should be a primary focus, ensuring that the workforce for these projects is drawn from within Nova Scotia, including both skilled and unskilled labor. By establishing local hiring targets, these projects can directly address unemployment and provide a sustainable source of income for residents, particularly in rural and coastal areas.

Additionally, the development of regional supply chains is a critical component of the economic benefits framework. Offshore wind projects require a wide range of services and materials, such as equipment manufacturing, construction, logistics, and maintenance. By fostering the development of local supply chains, Nova Scotia can retain a larger portion of the economic value generated by these projects within the province. This could involve partnerships with local businesses to provide goods and services essential to ORE operations, creating a ripple effect that boosts economic activity across multiple sectors.

Municipal and community revenues could also be bolstered through taxes or royalties associated with offshore energy projects. These funds could be used for local infrastructure development, public services, or to support community-driven initiatives. Furthermore, the framework should encourage business partnerships with Mi'kmaq communities and local enterprises, ensuring that Indigenous communities, which have deep cultural and economic ties to the land and waters, are full partners in the economic opportunities presented by ORE. These partnerships could help to create sustainable, long-term economic benefits for Indigenous communities, fostering greater self-determination and inclusion in the green energy economy.

Social Benefits

Social benefits should be a key pillar of the community benefits framework, aiming to create inclusive and supportive relationships between developers and local communities. A transparent and inclusive community engagement process is essential for building trust and ensuring that local residents have an active role in decision-making. Developers should be required to engage

with communities early in the planning process, addressing concerns and integrating local feedback into the project design (Rudolph, 2018). This process should be ongoing throughout the lifecycle of the project to ensure that community concerns are continually addressed.

Equitable benefit-sharing models must be established to ensure that the financial and social advantages of ORE projects are fairly distributed among all community members. This could include revenue-sharing agreements or community benefit funds that support local development initiatives, ensuring that everyone, especially those in more marginalized or impacted areas, has the opportunity to share in the benefits.

For Indigenous and fishing communities, economic and cultural considerations should be a priority. Developers must work closely with these groups to ensure that their rights, traditions, and interests are respected. This could include protecting fishing rights, ensuring that traditional territories are not adversely affected, and incorporating Indigenous knowledge into project planning. Furthermore, support for social infrastructure in coastal towns, such as healthcare, education, and housing, can help mitigate any potential negative impacts of offshore projects and ensure that these communities benefit from long-term improvements in quality of life.

Environmental Benefits

ORE projects offer significant environmental benefits, most notably the reduction of greenhouse gas emissions (Alikhani, 2025). By generating clean, renewable energy from wind and tidal sources, these projects can directly contribute to Canada's goals for carbon reduction and help mitigate the effects of climate change. Offshore wind farms, in particular, can play a key role in reducing the province’s reliance on fossil fuels and enhancing its energy security.

Additionally, offshore energy projects can create marine ecosystem co-benefits. For example, offshore wind farms can serve as artificial reefs, providing habitat for fish and other marine life. These habitats can improve biodiversity and support sustainable local fisheries. Moreover, offshore energy projects can support marine ecosystem protection efforts, such as the restoration of damaged habitats or the creation of marine protected areas (Alikhani, 2025). There are also opportunities for environmental monitoring and marine research, which can help to improve understanding of the impacts of ORE on marine environments. These efforts can be used to refine technologies and practices, minimizing negative environmental effects and enhancing the sustainability of offshore projects.

Furthermore, the financial and funding opportunities from ORE can contribute to community-based climate resilience and coastal adaptation, helping Nova Scotia’s coastal communities prepare for the effects of climate change, such as rising sea levels and more extreme weather events.

Educational and Capacity-Building Benefits

The development of ORE in Nova Scotia presents significant opportunities for educational and capacity-building initiatives. Collaborations with universities, colleges, and research institutes can

foster innovation and provide a platform for advancing renewable energy technologies. Academic institutions in Nova Scotia can strengthen their roles as hubs for research into renewable energy, marine sciences, and environmental sustainability, contributing to the province's reputation as a leader in green technology and innovation.

Moreover, the creation of workforce training programs tailored to the needs of the ORE sector is essential. These programs can provide local residents with the skills and knowledge required for employment in the offshore wind and tidal energy industries, ensuring that Nova Scotians are prepared to take advantage of the job opportunities these projects create. These programs should be designed in partnership with industry leaders, ensuring that the training aligns with the specific needs of the sector.

Investment in scholarships and technical education can help to create a pipeline of talent for the ORE sector. By offering scholarships for studies in engineering, marine biology, renewable energy, and environmental science, Nova Scotia can ensure that its workforce remains at the cutting edge of technology and innovation.

Finally, the further development of research and innovation hubs such as the Centre for Ocean Ventures and Entrepreneurship (COVE), the Fundy Ocean Research Centre for Energy (FORCE), and the Ocean Frontier Institute (OFI) could position Nova Scotia as a global leader in clean energy research. These hubs would attract international research partnerships, fostering innovation in offshore energy technologies and contributing to the province's economic growth. By investing in education, research, and innovation, Nova Scotia can build a sustainable, knowledge-based economy that supports the long-term growth of the ORE sector.

In conclusion, the community benefits framework for Nova Scotia's ORE projects must be multifaceted, addressing economic, social, environmental, and educational needs. By embedding these benefits into the planning and execution of offshore wind and tidal energy projects, Nova Scotia can create lasting, positive impacts that extend far beyond the energy sector itself, supporting the broader goals of sustainable development and community well-being.

4.2 Learning from European Examples

Europe provides valuable lessons in successfully integrating community engagement and development into renewable energy projects, particularly through the experiences of Denmark and Scotland. Denmark has demonstrated the significant value of co-ownership and cooperative models in securing strong community buy-in and fostering public trust. By offering local residents the opportunity to co-own wind energy projects, Denmark has not only allowed communities to benefit financially but has also enhanced public acceptance of renewable energy developments. This approach ensures that the local population shares in the financial success of projects, while also providing a sense of ownership and involvement in the energy transition. The success of these cooperative models has contributed to Denmark becoming a leader in community-owned renewable energy, with a significant portion of the country's wind energy capacity being locally owned.

In a similar vein, Scotland has implemented effective models for community benefit funds and long-term local reinvestment strategies. The Scottish Government's emphasis on shared ownership has enabled communities to directly invest in renewable energy projects, thus ensuring that the financial returns stay within local areas. Scotland has also developed mechanisms, such as the Community and Renewable Energy Scheme (CARES), which provides guidance and funding to help communities understand and engage with renewable energy projects. These community benefit funds are used to support local priorities, such as education, infrastructure, and social initiatives, ensuring that the benefits of industrial growth are felt across society. Scotland's experience highlights the importance of planning for long-term reinvestment into communities, allowing them to sustain and grow beyond the life cycle of individual projects.

Both Denmark and Scotland offer tested and effective approaches for aligning industrial growth with inclusive local development. These countries have successfully integrated community participation into the energy transition, demonstrating that renewable energy projects can benefit not only the environment but also the social and economic well-being of local populations. By ensuring that communities are both stakeholders and beneficiaries, these models can serve as valuable guides for other regions looking to develop renewable energy infrastructure in a way that promotes shared prosperity.

Comparative Relevance of Denmark and Scotland's Experiences for Nova Scotia

Denmark and Scotland provide valuable models for community ownership and benefit-sharing that could offer insights for Nova Scotia's ORE development. Denmark's cooperative ownership model, with its requirement for local communities to own at least 20% of wind projects, could align well with Nova Scotia's community enterprise traditions. Nova Scotia has a strong history of community-based businesses and cooperatives, particularly within its rural and coastal communities. This model of shared ownership, where local residents are both stakeholders and decision-makers, could empower Nova Scotians to directly benefit from offshore wind energy projects. It would also foster local buy-in and trust, which could be crucial for the successful implementation of large-scale renewable energy projects. Moreover, the Danish system's focus on community consultation and financial incentives, such as low-interest loans, could help mitigate potential financial barriers for local residents, making it easier for them to invest and become active participants in the renewable energy transition.

In contrast, Scotland's community benefit fund approach presents a transparent and scalable mechanism for local reinvestment. The requirement for developers to provide ongoing community benefits, as seen in the Scottish Energy Strategy, could be a model for Nova Scotia to ensure that local communities directly reap financial rewards from offshore wind developments. Scotland's practice of linking community benefit packages to the size and capacity of energy projects ensures that local communities receive meaningful and long-term support. This could be particularly relevant for Nova Scotia, where local communities, especially in rural and coastal areas, could greatly benefit from reinvestment in social infrastructure, job training, and other community-driven initiatives. The Scottish approach is flexible and could be adapted to fit the

scale of offshore wind projects in Nova Scotia, providing both immediate financial benefits and fostering long-term community resilience.

4.3 Cross-Cutting Insights

Transferability: Both Denmark and Scotland's models offer transferable lessons for Nova Scotia, albeit with necessary adaptations to the local context. Nova Scotia's governance structures and community dynamics differ from those in Europe, particularly when considering the Indigenous context. In Nova Scotia, involving Indigenous communities in decision-making and ensuring that benefits are equitably shared will be vital for the success of community ownership or benefit-sharing models. The flexibility of both the Danish cooperative model and the Scottish benefit fund system means they can be tailored to ensure inclusivity and respect for and accommodation of Indigenous rights, especially in terms of land use and resource management.

Barriers: Several barriers must be addressed for these models to succeed in the Canada-Nova Scotia offshore areas. Regulatory uncertainty remains a key challenge, as offshore wind development is still in the early stages in the Canada-Nova Scotia offshore area, and more clarity around terms and conditions of submerged land licenses will be critical. Consideration must be given to the demand for clean electricity in Nova Scotia and in markets beyond the province, as well as other potential uses for the energy generated by offshore projects, such as the production of green hydrogen. Limited grid capacity and infrastructure development are also significant hurdles, as Nova Scotia will need to expand and upgrade its energy grid to accommodate offshore wind projects. These infrastructure challenges could delay the smooth implementation of community ownership or benefit-sharing initiatives unless they are proactively addressed.

Conditions for Success: The experiences of Denmark and Scotland highlight that the success of community benefit models depends on several key conditions. Meaningful partnerships between developers, local governments, and community groups are essential for ensuring that projects are designed to meet local needs and preferences. Moreover, clear governance structures will be necessary to manage the distribution of benefits and ensure transparency in decision-making. Finally, dedicated funding mechanisms, whether through government support, private investments, or community-driven initiatives, will be critical to ensure that both community ownership and benefit-sharing models are sustainable in the long term. Ensuring financial support for local communities, coupled with effective governance and stakeholder engagement, will be crucial for replicating the success of European models in Nova Scotia's ORE sector.

4.4 Legal and Voluntary Approaches

Voluntary models, such as those in Scotland, offer developers flexibility in determining the scale and structure of community benefits but rely heavily on strong policy expectations and local engagement. Under Scotland's current framework, there is no legal requirement for developers to offer community benefits; however, the Highland Council has introduced a voluntary policy that guides developers on contributions and ensures the fair distribution of benefits. This model allows developers to tailor their contributions to the specific needs and preferences of local communities, fostering a more collaborative approach to community engagement. However, the success of this

model depends on developers' willingness to act in good faith and the clear expectations set by local governments and communities. Without a legal obligation, the effectiveness of community benefits can be inconsistent, as developers may choose to prioritize financial considerations over community engagement. Despite these challenges, the voluntary model can offer a level of flexibility that allows for creativity and innovation in addressing community needs, provided that strong policy frameworks and clear guidance are in place to encourage developer participation.

Mandatory or legislated approaches, such as those in Denmark, offer a more consistent and guaranteed framework for community benefits. In Denmark, regulations require that at least 20% of the ownership of offshore wind farms be offered to local communities and municipalities. This mandatory approach ensures that the local population has a direct stake in the project, both in terms of financial returns and decision-making power, thereby fostering long-term support and trust in the energy transition. By embedding community benefits into legal requirements, Denmark ensures that communities receive lasting, consistent benefits throughout the lifecycle of the project. This model not only secures financial participation for local residents but also creates a mechanism for sustained community involvement and influence over the development process. The predictability of mandatory benefits provides clarity for both developers and communities, enabling long-term planning and ensuring that the socio-economic impacts of renewable energy projects are shared equitably.

In Nova Scotia, the potential for incorporating community benefit obligations directly into terms and conditions of submerged land licenses offers a promising path for ensuring long-term accountability and community engagement. Embedding such obligations into the legal framework of energy projects would require developers to provide community benefits as a condition of receiving a long term right to exclusivity in the Canada-Nova Scotia offshore area. This approach could guarantee that community benefits are consistently delivered throughout the lifecycle of offshore wind projects, ensuring that local residents and communities have a stake in the development once a final investment decision is made by the developer. By linking community benefit requirements to legal agreements, Nova Scotia could align the interests of developers with the broader goals of sustainable and inclusive economic development, while also providing a mechanism for transparency and accountability. This would ensure that the financial and social benefits of renewable energy projects are equitably distributed, creating a strong foundation for community buy-in and long-term support for the province’s transition to renewable energy.

5. Recommendations for a Community Benefits Framework

1. Establish an ORE Community Benefits Framework
   Define minimum standards and expectations for economic, social, environmental, and educational benefits in all ORE projects.

2. Embed Benefits in Regulatory Instruments
   Require community benefit plans and commitments within submerged land licenses prior to construction and operation beginning.

3. Support Co-ownership and Local Equity Participation
   Pilot programs enabling community investment in offshore projects, modelled after Denmark's cooperative structures.

4. Create an ORE Community Benefit Fund
   Develop a transparent mechanism to channel rental revenues from ORE development into local projects and priorities.

5. Advance Workforce and Education Partnerships
   Collaborate with Nova Scotia Community College (NSCC), universities, and Indigenous organizations to build technical and management capacity for the sector.

6. Develop Monitoring and Evaluation Metrics
   Establish clear performance indicators - such as local jobs created, funds distributed, and community wellbeing measures - to track long-term outcomes.

By adopting these recommendations, Nova Scotia can position itself as a leader in responsible and inclusive ORE development. A community benefits framework, reinforced through the submerged land license terms and conditions and supported by opportunities for co-ownership models, funding mechanisms, and workforce development, would help align ORE growth with provincial economic, social, and environmental priorities. Importantly, consistent monitoring and evaluation will ensure that commitments translate into tangible outcomes for communities. Taken together, these actions provide a practical roadmap for maximizing local value, fostering public trust, and securing long-term community support for Nova Scotia's emerging ORE sector.

6. Conclusion

Canada and Nova Scotia stand at a defining moment in its clean energy transition, with ORE offering a unique opportunity to both decarbonize the energy system and foster long-term economic growth. International experiences, particularly from Denmark and Scotland, demonstrate that ORE can serve not only as an economic catalyst but also as a powerful driver of inclusive community development. However, achieving this dual outcome, where both the economy and local communities thrive, requires deliberate and thoughtful policy design, early engagement with local stakeholders, and a clear commitment to ensuring shared benefits across the province.

By embedding community benefit frameworks into its ORE strategy, Nova Scotia can position itself as a leader in equitable and sustainable energy development. The adoption of community ownership models and benefit-sharing arrangements, similar to those seen in Denmark and Scotland, will ensure that local communities are not only recipients of the economic rewards from this growing industry but also active participants in its success. This commitment to shared prosperity can enhance the social and environmental resilience of Nova Scotia's coastal and rural communities, ensuring that they are well-equipped to benefit from and contribute to the province's renewable energy future. Ultimately, by integrating inclusive and transparent community benefit policies into its ORE projects, Nova Scotia can lay the groundwork for a just and sustainable energy transition that benefits all its residents, now and into the future.

It is recommended that the regulator develop terms and conditions for submerged land license agreements to appropriately implement a community benefits framework consistent with the recommendations set out herein.

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8. Appendices

Appendix A: Comparative Frameworks and Community Benefit Models

From Rudolph et al. (2018):

Benefit Model	Description of Mechanism	Assets	Limitations
Community Funds	Developers pay into a particular fund arranged for an offshore development.	Easy for developer to arrange, only need to make payments.	Access to funds can be restricted to particular groups.
	Different models of community funds are either administered by developers, authorities, or communities.	Possibility of administration of funds through community groups.	Usually, individuals do not have access.
	Contributions are made on a voluntary basis.	Community can decide how and when funds are spent.	
	Mechanisms of funds are usually established in consultation with affected and benefiting communities.	Criteria can be set in consultation with communities.	
	Funds for affected communities and regions or funds for communities in which developers operate.	Democratic vote possible on how funds are spent.	
	Communities and community organizations can usually apply for project funding from the fund.		
	Usually, funds are annual payments corresponding		

	with the capacity of the wind farm.		
	Access to the fund can be regulated.		
	Most common in the UK for offshore wind farms.		
PRE-EXISTING FUNDS	Developers pay into existing funds not set up specifically for offshore renewables.	Fund already operates with particular purposes.	Purpose can be limited.
	These include regional development funds, nature preservation funds, wildlife trusts.	Developer only provides additional payments.	
COMMUNITY OWNERSHIP	Co-ownership through coastal communities, co-operatives, or non-local energy utilities very rare.	Individual benefits for investors.	No immediate benefits, revenues only generated during operation.
	Benefits are generated through revenues from partial ownership of the wind farm.	Local investors require up-front equity.	Costly for public investors.
	Legal obligation of 20% ownership for nearshore wind farms in Denmark.	Revenues generated through ownership are also administered by funds and trusts.	No wider community benefits, unless ownership by community organisation or co-op.
	Revenues generated through ownership are also administered by funds and trusts.	Municipal utilities ownership and citizen participation possible in Germany (community buy-in).	
EQUAL DISTRIBUTION OF REVENUES	Equal distribution of revenues generated from offshore renewables.	Distribution is usually centrally managed by one authority.	Management through local or regional authorities needed.

	Distribution is usually centrally managed by one authority.	In place where offshore renewables generate non-specific revenues through charges by the state or communities.	Danger of affected communities missing out on benefits.
	In place where offshore renewables generate non-specific revenues through charges by the state or communities.	These revenues can be applied to benefit the wider society or specific communities.	Potential discrepancy between benefitting and affected communities.
	These revenues can be applied to benefit the wider society or specific communities.	Tax income from offshore wind levied by federal states in Germany, as offshore area is not municipalized.	Requires systematic approach to how benefits are distributed.
DIRECT INVESTMENTS & PROJECT FUNDING	Developers make direct investments or donations for local projects and sponsor local initiatives.	One-off investments, usually made in addition to the establishment of funds to boost particular branches of the local economy, e.g., tourism.	Beneficial effects might be only temporary through one-off payments.
	One-off investments, usually made in addition to the establishment of funds in order to boost particular branches of the local economy, e.g., tourism.	Tangible and immediate effects.	Distribution does not necessarily involve much developer engagement.
	Some developers (e.g., Centrica) invest in local projects instead of creating specific funds.	Presence and trust-building of developer.	Whole area can benefit from revenues and payments.
	Tangible and immediate effects.	Local involvement of developer is visible.	
	Presence and trust-building of developer.	Investments can be negotiated with communities.	

	Local involvement of developer is visible.	Investments can be made according to local needs.	
	Investments can be negotiated with communities.		
	Investments can be made according to local needs.		
APPRENTICESHIPS & STUDENTSHIPS	Focus on education and skills.	Bursary schemes and studentships are a particular component of the community benefit fund.	Fewer immediate local effects for communities.
	Bursary schemes and studentships are a particular component of the community benefit fund.	Skills and training to keep knowledge in local area.	Benefits only for a few selected people.
EDUCATIONAL PROGRAMMES	Presentations and workshops in schools and colleges.	Raising awareness of climate change, sustainability, environment, and renewables.	Fewer immediate and tangible effects for communities.
	Raising awareness of climate change, sustainability, environment, and renewables.	Encouraging and providing specific skills and knowledge for careers in the renewable energy sector.	
ELECTRICITY DISCOUNTS	No electricity discount schemes from offshore renewables so far.	Useful for continuing dialogue with local communities.	Difficult to determine the area eligible for discounts.
	Useful for continuing dialogue with local communities.	Awareness raising.	

	Awareness raising.	Comparatively easy to establish and implement.	
	Comparatively easy to establish and implement.	Immediate, visible, and tangible benefits for individuals.	
	Immediate, visible, and tangible benefits for individuals.		
COMMUNITY BENEFIT AGREEMENTS	Binding agreements between developers and local authorities or communities to deliver benefits.	Can be non-binding policy from council (Highland Council).	Could be seen as too restrictive; May limit flexibility.
	Can be non-binding policy from council (Highland Council).	Can create a long-term dialogue between community and developer.	
INDIRECT BENEFITS FROM SUPPLY CHAIN	Not necessarily community benefits, but some developers and authorities interpret them as such.	Creation of jobs through regional supply chain involving local businesses and using local infrastructures.	Needs to be coordinated with energy supplier which can be complicated for developer when dealing with more utilities.
INDIRECT BENEFITS THROUGH TOURISM	Offshore renewables are regarded as a novel and innovative technology and as tourist attractions in their own right.	Facilities as an attraction for tourists and also use for tourist activities (tidal barrages).	Understanding of offshore facilities as a tourist attraction can be questionable and become

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SUBMITTED ONLINE

January 13, 2026

Re: East Coast Environmental Law Reponses to Call for Information NS25-1R

Thank you for the opportunity to submit information and perspective in response to the questions posed in Call for Information NS25-1R.

East Coast Environmental Law ("ECEL") is a regional charity that provides public-interest environmental law services throughout Atlantic Canada. We envision a future in which laws and legal systems protect ecological health and support environmental and climate justice. To that end, we advocate for progressive environmental law and policy, provide public legal education on environmental laws, and use our legal skills to support others who are working to prevent or redress environmental harms.

For several years, we have been engaging in the law reform initiatives, regional assessments, and public engagement processes that have been laying the foundations for offshore wind development in Atlantic Canada. We support responsible offshore wind development in the region because we believe it can contribute meaningfully to decarbonization, climate change mitigation, and a sustainable energy future. We also believe that strong environmental laws and regulatory practices, developed by learning from best practices in offshore wind regulation around the world, can facilitate the effort to harness sources of offshore renewable energy while safeguarding marine and coastal ecosystems and minimizing conflicts with other ocean users.

This submission responds to the questions posed in the Call for Information feedback form on the CNSOER website, addressing those questions in the same order in which they appear online.

1.0 Identifying Parcels within the Government-designated Wind Energy Areas

The Strategic Direction dated September 18, 2025 ("Strategic Direction") directs the CNSOER to identify recommended parcels in the designated French Bank, Middle Bank, and Sydney Bight Wind Energy Areas ("WEAs") that, cumulatively, would offer generating capacity between 3000 and 5000 megawatts ("MW"). More specifically, the Strategic Direction indicates that the CNSOER should seek at minimum to identify parcels that would offer 3000 MW of generating

capacity but that the Regulator may recommend parcels totalling up to 5000 MW of generating capacity if the Regulator determines that is feasible.

1.1 *Listed Factors that the CNSOER Must Consider and Balance*

The Strategic Direction directs the CNSOER to consider and balance several factors when identifying recommended parcels. Our comments below discuss five of those factors: about the others, we make no comments at this time.

1.1.1 Proximity to Shore

The first listed factor is "proximity to shore", and the Strategic Direction indicates that the CNSOER should prioritize parcels "closer to shore".

In its final report, the Committee for the Regional Assessment of Offshore Wind Development in Nova Scotia ("NS OSW RA Committee" or "Committee") recommended that the Government of Canada and Government of Nova Scotia establish a 25-kilometre buffer around the provincial coastline and Sable Island in which offshore wind developments would not ordinarily be permitted.[1] In our written submission during the public engagement on the designation of the Canada–Nova Scotia WEAs, we discussed the rationale behind the Committee's recommendation and expressed our support for the proposed buffer.[2] We emphasized that the Committee's recommendation was based on extensive research and engagement, which concluded that the current state of ecological and technological knowledge does not support permitting offshore wind developments less than 25 kilometres from shore without further engagement, research, and analysis.[3]

We continue to support the Committee's recommended 25-kilometre buffer because we believe the rationales for the recommendation—including concerns about conflicts with vulnerable coastal and nearshore ecosystems, migratory birds and bats, species at risk, Indigenous and non-Indigenous fisheries, and other coastal economies—are significant. Although we recognize that there has been ongoing research into many aspects of offshore wind development since the NS OSW RA concluded, we are not aware of any published studies that respond specifically to the Committee's call for further research, engagement, and analysis on this subject.

As we underscored in our submission during the WEA engagement, we wish to be clear that we are not saying that no offshore wind developments in Nova Scotia should ever be located less than 25 kilometres from shore. Like the NS OSW RA Committee, we recognize that offshore wind developments closer to shore may be necessary and justified in certain circumstances. However, we believe that research, engagement, and analysis justifying the location of offshore

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[1] See for example Committee for the Regional Assessment of Offshore Wind Development in Nova Scotia, *Regional Assessment of Offshore Wind Development in Nova Scotia: Final Report* (January 2025) at page 25 ["NS OSW RA Report"].
[2] East Coast Environmental Law, "Submission on the Proposed Canada–Nova Scotia Offshore Wind Energy Areas Engagement" (14 April 2025) at pages 2-4 ["ECEL WEA Engagement Submission"].
[3] *Ibid* at page 4.

wind developments closer to shore should be conducted and shared publicly before proposals for such developments are invited through a Call for Bids.

We are aware that in December 2025, the CNSOER issued a Request for Proposals ("RFP") for a "Regional Assessment of Offshore Wind Site Assessment Activities in the Government Designated Wind Energy Areas in the Canada-Nova Scotia Offshore Area".[4] While we see the value in this initiative, our interpretation of the scope of work described in the RFP leads us to believe that this assessment will not directly address the concerns that inspired the NS OSW RA Committee's recommended 25-kilometre buffer, nor will it provide the research, engagement, and analysis that the Committee recommended should occur before offshore wind developments are permitted within 25 kilometres from shore.

Of the three designated WEAs that are at issue in this Call for Information, only the French Bank WEA includes areas that are within 25 kilometres from shore, and those areas are all at least 20 kilometres from shore. In light of the direction provided by the Government of Canada and Government of Nova Scotia to prioritize parcels "closer to shore", the CNSOER may be unable to implement the NS OSW RA Committee's recommendation for further research, engagement, and analysis before recommending one or more parcels "close to shore" in the French Bank WEA. With this in mind, we suggest that if the CNSOER deems it necessary to recommend one or more parcels in the French Bank WEA that are between 20 and 25 kilometres from shore, those parcels should be large enough to include substantial areas that are more than 25 kilometres from shore. Ultimately, the successful bidders who wish to build inside the 25-kilometre buffer zone could be required to develop research and participation plans for analyses that will assess whether their proposed developments could be constructed beyond 25 kilometres from shore or whether some incursion into the 25-kilometre buffer zone is necessary. This would put the onus on developers to justify their proposed distances from shore when they are ready to initiate impact assessment and project authorization processes, and it would allow for further time for research, engagement, and analysis before development plans are finalized.

1.1.2 Interactions with Existing Ocean Users and Activities

Another listed factor is "interactions with existing ocean users and activities, including the fishing and seafood industries". Our comments above concerning "proximity to shore" are also relevant to this topic. As we discussed in our written submission during the WEA designation engagement, one of the NS OSW RA Committee's rationales for its recommended 25-kilometre buffer was the avoidance of conflict with other ocean users and activities, including fisheries.[5]

1.1.3 Potential for Adverse Impacts to Any Established or Asserted Aboriginal and Treaty Rights

Another listed factor is "potential for adverse impacts to any established or asserted Aboriginal

[4] Canada–Nova Scotia Offshore Energy Regulator, "Request for Proposals: Regional Assessment of Offshore Wind Site Assessment Activities in the Government Designated Wind Energy Areas in the Canada-Nova Scotia Offshore Area" (19 December 2025).
[5] ECEL WEA Engagement Submission" (full citation above at footnote 2) at page 2.

and treaty rights". Our comments above concerning "proximity to shore" are also relevant to this topic. As we discussed in our written submission during the WEA designation engagement, one of the NS OSW RA Committee's rationales for its recommended 25-kilometre buffer was the avoidance of conflict with and potential adverse impacts to Indigenous fisheries, including commercial, moderate livelihood, and food, social, and ceremonial fisheries.[6]

1.1.4 Sensitive Benthic Habitats and Important Marine and/or Identified Critical Habitat

Two other listed factors are "sensitive benthic habitats" and "important marine and/or identified critical habitat".

Both independently and as a member of SeaBlue Canada, ECEL has consistently taken the position that offshore wind developments should not be permitted in legally protected and conserved areas within the offshore, nor in areas slated for future legal protection and conservation.

Canada has failed in its commitment to protect 25% of its ocean territory by 2025 and is not on track to reach the commitment of protecting 30% of its ocean territory by 2030, as required under the *Kunming-Montreal Global Biodiversity Framework.* Legal protection and conservation of marine areas—including through mechanisms such as Marine Protected Areas, National Marine Conservation Areas, National Wildlife Areas with marine components, Marine National Wildlife Areas, Indigenous Protected and Conserved Areas, and other effective area-based conservation measures—are crucial means by which the Government of Canada and Indigenous peoples in Canada are working to address the biodiversity crisis. Marine areas that are protected and conserved through such measures are safeguarded for reasons such as their abundant biodiversity, their importance for ecosystem health and ocean industries, and their cultural importance to Indigenous and coastal communities. As we rely on the development of offshore wind as an important path to address climate change, we cannot lose sight of the critical role of healthy marine ecosystems.

In order for Canada to achieve its marine conservation goals and effectively safeguard marine biodiversity for future generations, offshore wind development must be developed responsibly. Among other things, this means that siting decisions for offshore wind developments must preserve the integrity of marine areas that have been set aside through legal protection and conservation measures or that are being considered for protection and conservation through such measures.

1.2 *Other Considerations for Parcel Identification*

As noted above, the Strategic Direction directs the CNSOER to identify recommended parcels in the designated French Bank, Middle Bank, and Sydney Bight WEAs that, cumulatively, would offer generating capacity between 3000 and 5000 MW. More specifically, the Strategic Direction indicates that the CNSOER should seek at minimum to identify parcels that would offer 3000

[6] *Ibid*.

MW of generating capacity but that the Regulator may recommend parcels totalling up to 5000 MW of generating capacity if the Regulator determines that is feasible.

The Government of Nova Scotia has long been communicating its intention to lease sites for up to 5 gigawatts ("GW") of offshore wind development by 2030, and the Strategic Direction is in line with those stated intentions as we have understood them to date. We are not opposed to the direction to recommend parcels that, cumulatively, would offer generating capacity between 3000 and 5000 MW at this time. We note, however, that our research and engagement on offshore wind development to date have indicated that in the United Kingdom of Great Britain and Northern Ireland ("UK"), current governmental ambitions to significantly increase offshore wind development are generating controversy and pushback from fishers. Notably, the scale of the UK's offshore wind ambitions is similar to the scale of the Government of Nova Scotia's vision for "Wind West", and we believe the UK experience offers important lessons for Nova Scotia. As we have argued in other submissions and in conversations with government representatives and the Regulator, we believe it will be crucial for Canada and Nova Scotia to take a staged approach to offshore wind development and, in doing so, to prioritize ongoing, collaborative research and engagement with fishers. Early offshore wind developments will offer significant opportunities to learn from experience and support the development of measures to avoid or mitigate conflicts between offshore wind developments and local fisheries.

The Strategic Direction also directs that "[t]he spatial extent of identified parcels should be based on a moderate MW/square km (km2) density and include a buffer to accommodate for potentially unsuitable areas for project development"; it directs that "[p]arcels should consider future opportunities for project expansion and/or multiple developers operating simultaneously" within WEAs; and, it provides directions for minimum parcel identification within the French Bank, Middle Bank, and Sydney Bight WEAs. We do not have specific concerns or comments to express about these directions. As noted in our comments above on the "proximity to shore" factor, we support using buffers to avoid unsuitable areas for project developments and also to avoid or minimize conflicts with existing ocean users and activities.

2.0 Potential Evaluation Criteria for Bids Submitted as Part of the Offshore Wind Call for Bids Process

The CNSOER's online feedback form invites commentary on a several potential "bid submission categories" that the Regulator is considering for inclusion in the anticipated Call for Bids process.

The "bid submission categories" listed in the online feedback form all appear to be "non-price criteria"—that is, criteria that bidders could be required to address in their bids and that would contribute to the CNSOER's qualitative assessment of the bids received. We support the inclusion of non-price criteria in offshore wind Call for Bids processes because we believe that judicious use of non-price criteria can support the achievement of strategic policy priorities and objectives, including the sustainable development of offshore wind, the protection and conservation of healthy marine ecosystems, benefits for coastal communities, and a just transition to a sustainable energy future. To be effective, non-price criteria must be objective,

measurable, and capable of evaluation;[7] they must also be designed with an eye to what is realistically achievable and enforceable.

Our research to date indicates that in offshore wind auctions conducted by the United States Bureau of Ocean Energy Management ("BOEM"), financial values are assigned to non-price criteria, so that strong inclusion of non-price criteria increases the overall value of bids. It appears that in some other jurisdictions, scoring metrics are used to give weight to the non-price criteria and determine how they contribute to bid assessment. We do not yet have an opinion on which practice would be most suitable under the Canada–Nova Scotia Accord Acts regime: at present, we would simply encourage the CNSOER to be as transparent as possible about the approach it recommends and its reasons for doing so.

Our research on the use of non-price criteria in offshore wind licencing processes in other jurisdictions indicates that the practice is well-established. It appears that it is common for non-price criteria to represent between 25 and 30 per cent of the total valuation of a bid, with the remaining valuation focusing on price. We support the inclusion of non-price criteria within this range.

2.1 *Technical Expertise and Project Delivery Capacity*

In our view, bidders that can demonstrate expertise and project delivery capacity will be more likely to succeed in developing offshore wind projects. We support including non-price criteria focused on these qualities, including the specific qualities listed in the CNSOER's online feedback form: project experience, project plan, and pre-feasibility study.

Concerning project plans and pre-feasibility studies, we would expect that, at the relatively early stage of a Call for Bids process, project plans and pre-feasibility studies will leave many project details to be determined at a later stage, through processes that incorporate engagement with Indigenous rightsholders, the public, coastal communities, other ocean users, and the Regulator.

2.2 *Financial Strength and Project Delivery Readiness*

We support giving greater weight to bidders that demonstrate financial strength and project delivery readiness, and we agree that the listed factors of financial track record, net assets and equity ratio or funds under management, and project financing plans are all important.

2.3 *Engagement and Community Benefits*

We support the inclusion of non-price criteria that give weight to the preparation of engagement plans that are inclusive of the Mi'kmaq of Nova Scotia, African Nova Scotian and African Descent communities, and other underrepresented and underserved groups. We would also note that such plans should be inclusive of coastal communities in the vicinity of the parcels for which submerged land licences are being sought. In our view, the strongest engagement plans would include, among other things: commitments respecting the use of physical and virtual forums to enable as many community members to participate as possible; commitments respecting direct

[7] NS OSW RA Report (full citation above at footnote 1) at page 71.

and specific engagement with the Mi'kmaq of Nova Scotia and African Nova Scotian and African Descent communities; clear explanations of how community input will be incorporated in project plans; and, clear explanations of how the developers will communicate what they learn through their engagement.

We also support the inclusion of non-price criteria that give weight to the preparation of local community benefits plans that are inclusive of the Mi'kmaq of Nova Scotia, African Nova Scotian and African Descent communities, and other underrepresented and underserved groups. We would also note that such plans should be inclusive of coastal communities in the vicinity of the parcels for which submerged land licences are being sought. In our view, the strongest local community benefits plans would include, at minimum, descriptions of the kinds of community benefits a bidder intends to negotiate, and commitments to make best efforts to establish community benefits plans with communities that will be impacted by the development.

Our research to date has not identified best practices for the development of local community benefits plans at this stage of the offshore wind licencing and development process. We are aware that our colleagues at the Sierra Club Canada Foundation have recommended that the CNSOER establish minimum standards for local community benefits plans, which developers and local communities could choose to exceed. We support this recommendation; however, we would also recommend that any standards established by the CNSOER should be developed through public engagement, so that local communities can share their perspectives before such standards are established.

Our research to date on BOEM practices indicates that BOEM has in the past received suggestions that developers participating in offshore wind auctions should get credit for having firm community benefit agreements in place at the time of action. BOEM rejected these suggestions on the basis that not all bidders will be awarded licences following auction processes, and the time and effort involved for both developers and communities would be wasted when developers are not successful. This could have adverse impacts on communities that stand to be affected by offshore wind developments and could discourage negotiations or lead to negotiation fatigue. [8] We see the logic in BOEM's reasoning and would generally not expect bidders to have firm community benefit agreements in place with local communities before participating in a CNSOER Call for Bids. That being said, we would not wish to discourage offshore wind developers' attempts to establish early connections with local communities and build relationships that could lead to productive community benefit agreements. It may be appropriate to balance these competing concerns by giving weight to developers' early engagement with local communities but not including the pre-establishment of firm community benefit agreements as non-price criteria in Call for Bids processes.

2.4 *Supply Chain and Workforce Development*

We support the inclusion of non-price criteria that give weight to supply chain development plans that support "establishing an offshore wind supply chain that is inclusive, diverse, and

[8] See Bureau of Ocean Energy Management and Bureau of Safety and Environmental Enforcement, "Renewable Energy Modernization Rule" *Federal Register* (15 May 2024).

equitable, creating opportunities for Mi'kmaq of Nova Scotia, African Nova Scotian, and African Descent communities, and other underrepresented, underserved groups".

We also support the inclusion of non-price criteria that give weight to the inclusion of workforce and training plans, and we believe workforce and training plans should also be required to be "inclusive, diverse, and equitable, creating opportunities for Mi'kmaq of Nova Scotia, African Nova Scotian, and African Descent communities, and other underrepresented and underserved groups". We note that this requirement is not currently suggested by the CNSOER's online feedback form. Additionally, we believe that non-price criteria concerning supply chain and workforce development should aim to create opportunities for members of the local communities that will be impacted by offshore wind projects. It is crucial that adjacent communities do not shoulder ,or perceive they are shouldering, negative impacts of offshore wind development while receiving little or no positive benefit.

We are aware that stringent local content requirements have been cited as the reason for project cancellations and as threats to the success of offshore wind in Taiwan, and we would expect that in recommending any requirements for supply chain development plans, the CNSOER will be careful not to recommend unrealistic local content requirements. That being said, we strongly support setting high expectations for diversity, equity, and inclusion in supply chain planning as well as in workforce and training plans.

2.5 *Environmental Sustainability and Coexistence*

We support the inclusion of non-price criteria that give weight to coexistence plans that include references to existing ocean users and activities. In our view, the strongest coexistence plans would include commitments to engage with existing ocean users, including but not limited to fisheries, along with commitments to make best efforts to co-develop measures that will support coexistence and minimization of conflicts.

We also support the inclusion of non-price criteria that give weight to biodiversity plans that include references to proposed measures to protect, conserve, and/or enhance biodiversity. In our view, such plans should also include references to the Mi'kmaw concept of *etuaptmumk*, "Two-Eyed Seeing", and should include commitments to engage with Mi'kmaq to develop and implement measures to protect, conserve, and/or enhance biodiversity. We believe such plans should also include commitments to engage with marine conservation groups, academics, and other relevant parties to support the development and implementation of measures to protect, conserve, and/or enhance biodiversity. Further, we recommend that biodiversity plans include commitments to engage with conservation groups focused on potential impacts to birds and bats. We would expect such plans to refer to the "mitigation hierarchy" (avoidance, minimization, restoration, and offsetting) and to focus largely on avoiding or minimizing environmental harms, but we would also expect such plans to address opportunities for positive impacts on biodiversity.

As noted above, we participated in the NS OSW RA, and we were largely supportive of the conclusions and recommendations that the NS OSW RA Committee made in its final report. As the CNSOER is no doubt aware, many of the Committee's recommendations were intended to

address key challenges and opportunities related to developing offshore wind while also "safeguarding marine ecosystems, accommodating other ocean users", and "recognizing the strategic planning" needed to address supply chain and onshore infrastructure needs.[9] The Committee acknowledged the many unknowns that still remain concerning the physical and ecological characteristics of the offshore, and it highlighted the need to address information gaps with data collection, research, and monitoring to provide a strong chance of success for the industry. With this in mind, we encourage the CNSOER to consider if the inclusion of non-price criteria in the anticipated Call for Bids process could help to meet the need for further data collection, research, and monitoring—for example, by providing opportunities for funding contributions for the Committee's recommended Scotian Shelf Collaborative Research Initiative or by encouraging developer commitments to support and contribute to marine spatial planning.

3.0 Coexistence

In our view, site selection is a crucial measure for promoting coexistence and avoiding or mitigating conflicts between offshore wind development and existing ocean users and activities. As noted above, we do not support offshore wind development in marine protected and conserved areas or areas slated for future protection. As is also noted above, we continue to support the NS OSW RA Committee's recommendation for a 25-kilometer buffer from shore because we understand that the recommendation was made in large part to avoid or minimize conflicts with local fisheries and coastal community activities.

4.0 Consideration for Fisheries Compensation

We agree with the recommendations of the NS OSW RA Committee, which suggested that fisheries compensation should be considered as a potential measure but as a measure of last resort, with primary focus put on avoiding or minimizing conflicts with fisheries. We recommend that fisheries compensation plans be developed through direct engagement with local fishers to build trust and ensure that compensation plans meet the needs of those affected.

In our view, any fisheries compensation plans that may be developed to address conflicts between offshore wind development and local fisheries should be designed carefully so as to avoid setting precedents that would support arguments for compensation for exclusion from marine protected and conserved areas.

5.0 Proposed Fees for All Bid Submissions and Successful Bidders

The Strategic Direction directs the CNSOER to require a one-time nonrefundable fee in the amount of $250,000.00 CAD paid by all bidders who choose to participate in the anticipated Call for Bids process, as well as an additional fee of $750,000 CAD to be paid upon the issuance of a submerged land licence.

Out research to date has not explored industry standards or best practices for fees such as these, so we express no opinion on these proposed at this time, except to say that we encourage the Government of Canada, Government of Nova Scotia, and CNSOER to provide transparency

[9] NS OSW RA Report (full citation above at footnote 1) at page 362.

about how these fees will be used and whether they will be used in part to support local communities that may be impacted by offshore wind developments.

6.0 Principles Listed in the Accord Acts

As noted in the CNSOER's online feedback form, the Accord Acts list three principles that apply in Division V: the offshore renewable energy division of the Acts:

(a) all Canadian corporations and individuals resident in Canada shall have a full and fair opportunity to participate on a competitive basis, including in the course of employment, in the supply of goods and services used in any work or activity related to an offshore renewable energy project;

(b) importance shall be given to the development of measures that aim to increase the participation of under-represented groups, including in the course of employment, in the supply of goods and services used in any such work or activity; and

(c) during the submerged land licence issuance process, importance shall be given to the consideration of effects on fishing activities.

In our view, the first and second listed principles may be addressed in part by the CNSOER's proposed inclusion of supply chain and workforce development criteria in the Call for Bids process, including the proposed criterion emphasizing the inclusion of "Mi'kmaq of Nova Scotia, African Nova Scotian, and African Descent communities, and other underrepresented and underserved groups". As noted above, we support the inclusion of these proposed non-price criteria.

In our view, the third listed principle should be addressed in part by a careful and considered selection of recommended parcels, which we have argued should seek to avoid or minimize conflicts with fisheries. This principle may also be addressed through the CNSOER's proposed inclusion of fisheries coexistence plans as a criterion in the Call for Bids process. The establishment of a clear and principled fisheries compensation plan would also support the application of this principle. We support the use of such measures to ensure that impacts to fisheries are not merely "considered" but are avoided or mitigated to the extent possible.

7.0 Community Benefits

In our view, the development of community benefits plans must involve direct engagement with affected communities, particularly the Mi'kmaq of Nova Scotia, African Nova Scotian and African Descent Communities, and other underrepresented and underserved groups.

We are aware that our colleagues at the Sierra Club Canada Foundation have recommended that the CNSOER establish minimum standards for local community benefits plans, which developers and local communities could choose to exceed, and we support this recommendation. We also recommend that any standards established by the CNSOER should be developed through public engagement, so that local communities can share their perspectives before such

standards are established. Likewise, community benefits plans established by developers should be developed in collaboration with local communities and should not be imposed on local communities without their input.

8.0 Terms and Conditions to Be Potentially Included in the Draft Submerged Land Licence

Our comments in this section address the contents of the CNSOER's "Summary of Potential Terms and Conditions for Inclusion in the Submerged Land Licence", which was published to inform public responses to this Call for Information.

8.1 *Rights of the Submerged Land Licence*

We concur generally with the CNSOER's description of the rights that a submerged land licence ("SLL") confers under the Accord Acts.

8.2 *Submerged Land Licence Periods*

We concur with the CNSOER's proposed structure of submerged land licence periods.

We have not sought to determine the duration of analogous licences in other jurisdictions, so we are not in a position to comment on whether 40 years is in keeping with practices in other jurisdictions.

We note that the CNSOER is contemplating that during the Site Assessment Period, interest owners may be required to submit several plans, including "a full and fair opportunities plan", a "fisheries plan", and "a community benefits plan". We would expect the plans developed at this stage to be more robust than any such plans provided during a Call for Bids process, because at this stage it will be reasonable for developers to spend more time and effort conducting engagement to inform plans such as these.

Regarding the maximum length of the Site Assessment Period, we recommend that it be set at eight years rather than six. We recognize the urgency of the climate crisis and the need to advance the renewable energy transition; however, offshore wind development is an entirely new industry in Canada and Nova Scotia, and the work of conducting baseline studies and other site assessment activities should not be rushed. We recognize that the CNSOER has issued an RFP for a "Regional Assessment of Offshore Wind Site Assessment Activities in the Government Designated Wind Energy Areas in the Canada-Nova Scotia Offshore Area" and that this regional assessment, if conducted, will likely help to streamline some site assessment activities; we also recognize that offshore wind developers may be able to complete necessary site assessment activities in fewer than eight years. Our recommendation that the maximum length of the Site Assessment Period be set at eight years is not intended to extend the length of site assessment activities unnecessarily: it is intended to ensure that offshore wind developers have the time they need to conduct full and proper assessments before proceeding to the construction and operation stages of their developments. If the CNSOER is concerned that allowing the Site Assessment Period to last longer than six years could result in interest holders occupying parcels without

conducting site assessment activities timeously, it may be appropriate to impose terms and conditions that require certain site assessment activities to be commenced or completed within prescribed timeframes, with failure to do so constituting grounds for termination.

During the Site Assessment Period, we would expect that interest holders will be conducting the baseline studies that will ultimately inform impact assessments and applications for Construction, Operations, and Maintenance Authorizations. The Government of Canada and the Impact Assessment Agency of Canada ("IAAC") are currently communicating their intention that impact assessments will be streamlined to take roughly two years to complete: correspondingly, IAAC is emphasizing the importance of early engagement and early information collection that will not only inform impact assessment but will also help to ensure that the process, although proceeding more quickly than before, is nevertheless robust. We believe it would be valuable for baseline studies conducted during the Site Assessment Period to be made publicly available as a term or condition of an SLL so that interested rightsholders and stakeholders have earlier opportunities to review and consider this information before impact assessments commence. As baseline studies are made public during impact assessment processes, we would generally not expect interest holders to have confidentiality concerns about sharing such information during the Site Assessment Period, but we would recommend that the CNSOER include language about how confidentiality claims would be addressed if such claims are made.

8.3 *Termination*

We concur generally with the CNSOER's proposed terms and conditions in this section; however, the section does not explicitly describe the possibility that terms and conditions of the SLL would include, and make legally binding, the material commitments that interest owners include in their bid packages during the Call for Bids process. If non-price criteria related to plans for local supply chains, workforce development and training, community benefits, biodiversity protection and conservation and restoration (among other possibilities) are going to influence the selection of successful bidder, then those successful bidders should be required to fulfill those commitments. Failure to fulfill commitments, if not remedied, should be grounds for termination of the licence, just as failure to comply with other terms and conditions will be grounds for termination.

The risks of non-price criteria being non-enforceable are articulated succinctly in a bulletin by Frontier Economics: "To ensure that bidders meet non-price criteria, auctioneers must monitor compliance and enforce penalties where necessary. Without these measures, bidders may inflate non-price criteria simply to win an auction, without the intention of ever fulfilling their commitments. This could distort auction results and undermine the effectiveness of the criteria".[10]

8.4 *Rentals and Levies*

We express no opinion on this section.

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[10] Frontier Economics, "Non-price Criteria in Offshore Wind Auctions: How to Strike the Balance" (June 2025).

8.5 *Financial Assurance*

We concur generally with the CNSOER's proposal for financial assurance that will "cover the costs of decommissioning anything constructed during the Construction, Operations and Maintenance Period"; however, we suggest that SLLs should also require financial assurance to cover the costs of decommissioning or remediating anything constructed, placed, or discharged in the licence area during the Site Assessment Period. A requirement to this effect would help to ensure that if for any reason an interest holder is unable or unwilling to proceed with project development after conducting site assessment activities, the CNSOER would have funds to draw upon if necessary to decommission or remediate anything constructed, placed, or discharged in the licence area during the Site Assessment Period.

8.6 *Engagement*

We concur with the CNSOER's proposal in this section, but we would expect that engagement requirements would be imposed in part through the incorporation of any commitments made in plans submitted during the Call for Bids process. If the SLL is going to establish a baseline of minimum engagement requirements, then presumably the use of non-price criteria related to engagement should be inviting commitments that are over and above the minimum requirements that will be established as the baseline through SLLs. Additionally, as we argued above, interest owners should be held to the commitments they make in the bidding process, through terms or conditions of the licence.

8.7 *Required Plans*

We are generally supportive of requirements for coexistence plans, full and fair opportunity plans, fisheries plans, community benefits plans, and biodiversity plans, but we are not certain we understand how the CNSOER envisions that such plans developed as terms or conditions of SLLs would build on requirements for bidders to submit some of these plans during Call for Bids processes. If the CNSOER is imagining that some of these plans will be provided during Call for Bids processes, then we would expect that those original plans would be expanded and improved upon under the SLL, rather than simply reproduced.

9.0 Participant Funding Program

The CNSOER's online feedback form states that the CNSOER is currently working to establish a Participant Funding Program ("PFP" or "Program") and anticipates that the Program will be established in 2026.

We strongly support the establishment of a PFP, and we encourage the CNSOER to establish a Program that offers robust funding support.

We note that in the initial PFP that the CNSOER established to support rightsholder and stakeholder participation in this Call for Information, funding was available for just three categories of participation needs/activities: travel to meet with the CNSOER; honoraria for Indigenous Elders providing relevant Indigenous knowledge; and, translation. We support the

provision of funding for these categories of participation needs/activities, but funding these categories alone will not suffice to support meaningful rightsholder and stakeholder participation.

Eligible funding categories in a PFP should also include professional fees for contracted services that will enable rightsholder and stakeholder groups to participate meaningfully, such as by retaining consultants to review, evaluate, and explain technical information submitted by offshore wind proponents, or by retaining legal advisors. Ideally, eligible funding categories in a PFP would also include salaried staff time and the administrative expenditures of participating organizations if that time is not already supported by other funding.

We suggest that PFP applications and funding delivery should follow the practice established by the Impact Assessment Agency of Canada, which provides approved funding upfront, on the basis of detailed applications, rather than requiring participants to submit specific requests for reimbursement during the funding period. We also suggest that a rolling application model should be used, as opposed to a model that requires participants to apply for funding within a specific and limited window of time.

10.0 Conclusion

Thank you again for the opportunity to provide this information and perspective. We commend the CNSOER's decision to provide 90 days for engagement in this Call for Information, as well as the CNSOER's establishment of an initial PFP to support rightsholder and stakeholder participation. We look forward to seeing how the CNSOER synthesizes and interprets the feedback it receives, just as we look forward to participating in the next opportunity for public engagement on offshore wind development in Nova Scotia.

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Canada-Nova Scotia Offshore Energy Regulator
27-201 Brownlow Avenue
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January 13, 2025

RE: Net Zero Atlantic Feedback on the Offshore Wind Call for Information NS25-1R

Dear Members of the Canada-Nova Scotia Offshore Energy Regulator,

Net Zero Atlantic appreciates the opportunity to provide feedback as part of the Offshore Wind Call for Information NS25-1R. Nova Scotia is well positioned to enter a growing offshore wind market. Development of the offshore wind sector presents a generation-defining opportunity to strengthen Nova Scotia's economy and diversify the provincial electricity generation mix, improve energy security, and contribute to provincial and national climate goals.

Net Zero Atlantic has been advancing research on offshore wind in Nova Scotia since 2020. Our support for the sustainable development of the industry and input into the public call for information are informed by our applied research in offshore wind and collaboration with experts and stakeholders on a range of diverse projects across Nova Scotia and Atlantic Canada. Information on all of our projects is available on our research portal.

We understand that the feedback being requested focuses on the strategic direction letter developed jointly by the Province of Nova Scotia and the Government of Canada. Specifically:

- Wind Energy Areas (WEAs) being considered and the location(s) of potential parcel(s) within
- Potential evaluation criteria to be used as part of the Call for Bids process
- Potential draft terms and conditions for a Submerged Land Licence

Feedback Section

Our comments are organized into three key themes:

- Parcels Location and Potential Evaluation Criteria
- Coexistence, Community Benefits, and Compensation
- Coordinated and Collaborative Response to Advancing Sustainable Offshore Wind

Theme 1: Parcels Location and Potential Evaluation Criteria

Parcels Location

Net Zero Atlantic appreciates the efforts put into the identification of WEAs in Nova Scotia. The designated WEAs are consistent with findings from the final report of the Regional Assessment of Offshore Wind Development in Nova Scotia[1] and with areas that we have investigated through earlier studies[2]. The WEAs designated offer significant development potential; however, realizing this potential will depend on reducing uncertainty for prospective proponents ahead of a Call for Bids process.

Early-stage research and WEA characterization are critical to de-risking offshore wind development and increasing the likelihood of a successful Call for Bids. Early understanding of site conditions and constraints, including environmental, metocean and geological conditions[3], grid connections, and cable routing options can reduce development risk, improve bid quality, and shorten overall project development timelines. For example, the Netherlands implemented a "one-stop shop" approach in which site studies, permitting processes, and grid development begin prior to wind farm tenders, resulting in a reduction of offshore wind farm development timelines from 7-10 years to 3-4 years[4].

International experience suggests that early coordination of interregional transmission planning (e.g., grid infrastructure, cable routing options) and marine sectoral planning, alongside investment in early-stage R&D, is central to de-risking investment and accelerating deployment[5]. Advancing these activities can enhance the probability of success for an offshore wind Call for Bids in Nova Scotia.

Potential Evaluation Criteria

Net Zero Atlantic appreciates the range in potential criteria for the offshore wind Call for Bids process, including technical capability, financial strength, engagement and community benefits, supply chain and workforce development, and environmental sustainability and coexistence. We look forward to further clarity on how potential criteria will be weighed in the Call for Bids process.

Theme 2: Coexistence, Community Benefits, and Compensation

Coexistence and Community Benefits

Net Zero Atlantic supports the inclusion of coexistence with other ocean users as a priority topic in the call for public feedback. Feedback gathered through public engagement activities and socioeconomic-focused research indicates a strong community interest in ensuring that coexistence considerations are

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[1] We acknowledge and support the thorough stakeholder and public feedback process that shaped the final recommendations from the Regional Assessment Committee.
[2] E.g., AEGIR Insights (2023). Value Mapping Nova Scotia's Offshore Wind Resources. *Net Zero Atlantic*.
[3] Priorities 6, 7, 12 and 13 in the Offshore Wind R&D Priorities Roadmap (2025) focus on the summarization and standardization of environmental, metocean, and geological data.
[4] Macquart et al. (2023). Dutch Offshore Wind Market Report 2023. *Netherlands Enterprise Agency (RVO)*.
[5] Banet & Willems (2023). Scaling offshore wind energy in Europe. *Centre on Regulation in Europe (CERRE)*.

integrated throughout project planning and are reflected in bid evaluation criteria[6,7]. Over the past three years, we have worked with Indigenous partner organizations to build capacity in Mi'kmaw and rural communities to engage with offshore wind topics and participate in related processes, reinforcing the importance of early, meaningful, and ongoing engagement in project development.

Similarly, the need for clearer understanding of potential socioeconomic effects and community-level benefits has been a reoccurring theme. Net Zero Atlantic is currently leading two projects focused on advancing this understanding, including a Nova Scotia-focused socioeconomic impact study of offshore wind development and a socioeconomic impact study of a subsea cable between Nova Scotia and the United States. These studies may provide useful context for developing evidence-based bid criteria related to community benefits, workforce development, and local economic participation. Outputs from these studies, along with supply chain analyses, could be used to support the identification of proposed benefits with specific regional and community-level priorities.

Fisheries Coexistence and Compensation Frameworks

Net Zero Atlantic is supportive of finding effective approaches to fisheries coexistence. Lessons from jurisdictions with active fisheries and offshore wind industries highlight the importance of mitigating potential conflict. In Scotland, fisheries liaison officers are a legislated requirement for offshore wind developers and operate as important points of contact for fisheries and community stakeholders. Early engagement with fishers and community stakeholders has been consistently identified as good practice[8]. Investment in engagement and data collection with the fisheries sector in the early stages of offshore wind development can inform mitigation strategies and improve outcomes[9].

Regarding fisheries compensation, research conducted to date suggests that frameworks may be more effective when foundational elements are defined prior to project-specific assessments. Establishing the structure, scope, and core responsibilities for the parties involved at an early stage may provide greater clarity for the fishing industry, potential developers, and other participants. Within the Call for Bids process, there may be an opportunity to provide early guidance on these elements to align expectations and generate more predictable outcomes for future projects. Overall, implementing mitigation strategies early in project development is the best-practice approach, with a well-defined approach to fisheries compensation operating as a protective measure in cases where mitigation alone is insufficient.

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[6] Capacity Building for the Sustainable and Inclusive Development of Nova Scotia's Offshore Wind Resource (March 2022 – March 2025).
[7] Clean Energy Conversations (September 2024 - March 2026).
[8] In partnership with the Nova Scotia Department of Energy, Net Zero Atlantic led a fact-finding mission in September 2025 to Aberdeen, Scotland. The mission focused on building local understanding of offshore wind and fisheries coexistence topics.
[9] Priority 5 in the Offshore Wind R&D Priorities Roadmap (2025) focuses on continued engagement with fishing industry representatives and co-development of research to better support coexistence with an active offshore wind industry.

Theme 3: Coordinated and Collaborative Response to Advancing Sustainable Offshore Wind

Early, coordinated actions are necessary to ensure that Nova Scotia is well prepared to advance towards an effective Call for Bids process. Work completed through the Nova Scotia Offshore Wind R&D Program has identified knowledge gaps and priorities that may influence the success of future projects, and support the effectiveness of a Call for Bids process. Advancing early-stage priorities may provide benefits as the process is being defined, particularly:

- Effective coordination and governance of R&D, with meaningful Indigenous participation and leadership, supports consistency in research, data management, and engagement. Advancing these activities can enable more efficient and predictable project development while reducing potential delays or costs.
- Synthesizing existing data to clarify gaps and guide new data collection can improve the quality of information available to potential developers and reduce development timelines. Early engagement with Indigenous organizations, the fishing industry, and local communities can also help ensure that the Call for Bids process reflects coexistence and community considerations.
- Early planning for enabling infrastructure, including ports, and advancing grid modernization and interregional transmission planning is essential to ensure effective electricity delivery, system reliability, and long-term sector competitiveness. This early planning can help define the technical and logistical attributes that developers will need to account for in proposed projects.

Taken together, these activities can support a more predictable and informed Call for Bids process while contributing to sector readiness and long-term benefits for communities across the province.

In Closing

Net Zero Atlantic remains committed to supporting the sustainable, coordinated, and evidence-based advancement of Nova Scotia's offshore wind sector. Our feedback is intended to help strengthen the foundation for parcel selection, effective evaluation criteria, meaningful community benefits, and timely investment in the enabling infrastructure required for long-term sector success.

We acknowledge and appreciate the contributions of all organizations and communities who have taken part in this process and continue to advance sustainable and efficient offshore wind development in Nova Scotia. We thank the CNSOER for considering our feedback and look forward to continuing to advance Nova Scotia's offshore wind industry.

Kind regards,

Alisdair McLean
Chief Executive Officer
Net Zero Atlantic