

Request for Information

Please note that the Department of Environment and Climate Change anticipates posting the environmental impact statement for EA 2202 – Port au Port-Stephenville Wind Power and Hydrogen Generation Project (Project Nujio’qonik GH2) and commencing the public and technical review during the week of August 21, 2023. Project information will be posted on the Department’s web page at <https://www.gov.nl.ca/ecc/projects/2202-2/> .

Request received from: Impact Assessment Agency of Canada (IAAC)

Request received on: July 14, 2023

Subject: Request regarding Registration 2202 – Port au Port-Stephenville Wind Power and Hydrogen Generation Project (Project Nujio’qonik GH2)

Stated purpose of request: “On April 18, 2023, the Minister of Environment and Climate Change Canada received a request to designate the proposed Project Nujio’qonik (the physical activities referred to as the Project) under subsection 9(1) of the *Impact Assessment Act* (the IAA).”

Response:

Ministry	Department of Environment and Climate Change, Environmental Assessment Division
Lead Contact	Eric Watton Senior Environmental Scientist
Full Address	P.O. Box 8700, Confederation Building, St. John’s NL A1B 0E6
Email	ericwatton@gov.nl.ca
Telephone	(709) 729-0834
Alternate Ministry Contacts	John Reynolds Manager of Wind Projects, Compliance and Monitoring johnreynolds@gov.nl.ca (709) 729-0090 Joanne Sweeney Director of Environmental Assessment joannesweeney@gov.nl.ca (709)729-0673

1. In general terms, please confirm and describe your ministry's role (if applicable) in the review of the Project.

The Department of Environment and Climate Change is responsible for environmental protection and enhancement in Newfoundland and Labrador, including the conduct of environmental impact assessments. The Department's Environmental Assessment Division (EA Division) administers Part X of the **Environmental Protection Act, SNL 2002, cE-14.2 (EPA)** and the Environmental Assessment Regulations. The purpose of Part X of the **EPA** is to (a) protect the environment and quality of life of the people of the province; and (b) facilitate the wise management of the natural resources of the province, through the institution of environmental assessment procedures before and after the commencement of an undertaking that may be potentially damaging to the environment. It requires projects that may have a significant effect on the natural, social or economic environment to present be registered for environmental assessment.

A description of the undertaking is reviewed by interested federal and provincial government departments, Indigenous governments and organizations and the public prior to decision-making. When the potential environmental effects of projects are of concern, the process generates real benefits by: (i) providing for comprehensive project planning and design, (ii) maximizing environmental protection, (iii) enhancing government coordination, accountability and information exchange, (iv) facilitating permitting and regulatory approval of projects, and (v) monitoring released projects to ensure compliance and effectiveness of mitigation.

The Port au Port-Stephenville Wind Power and Hydrogen Generation Project (Project Nujio'qonik GH2) (the Project) was registered for environmental assessment (EA) on June 21, 2022 under Section 49 of the **EPA**, (see the Project webpage at <https://www.gov.nl.ca/ecc/projects/2202-2/>). The Project registration document was reviewed by 23 provincial and federal government departments and agencies including Environment and Climate Change Canada (ECCC), Fisheries and Oceans Canada (DFO), Health Canada (HC), Impact Assessment Agency of Canada (IAAC) and Transport Canada (TC). The reviewing government departments provided scientific, technical and regulatory advice to the Minister of Environment and Climate Change (the Minister) with respect to their mandates.

As part of the EA process, the Proponent's registration document was posted on the Department's Project webpage. The public, Qalipu First Nation (QFN) and the Miawpukek First Nation (MFN) submitted comments on the Project to the Minister. Comments, were provided to relevant government departments and the Proponent for response. The Minister considered the content of the registration document, and all advice and comments prior to advising the Proponent on August 5, 2022, of his decision to require an environmental impact statement (EIS) for the Project. EIS guidelines (the Guidelines) were drafted in consideration of concerns raised during the registration review, and the draft Guidelines were circulated for review by government, the QFN, MFN and the public. The Minister considered all draft review comments and issued approved Guidelines to the Proponent, advising of the information that must be included in the EIS. The

Guidelines are found at https://www.gov.nl.ca/ecc/files/env_assessment_y2022_-2202-Approved-EIS-Guidelines.pdf

Once submitted, the EIS will be reviewed by relevant federal and provincial governments, the QFN, MFN, and the public, and all comments will be considered prior to the Minister determining whether the EIS is acceptable, and the Lieutenant Governor in Council determining whether or not the Project may proceed.

- 2. Please provide the contact information of the person or persons responsible for managing your ministry's oversight of the Project (if different from lead contact above).**

Same as above

- 3. Describe the provincial legislative or regulatory process or approvals administered by your ministry that may assess or manage the potential adverse effects of the Project. For each mechanism or approval, please provide information regarding the following:**
 - **Name of the process or authorization (e.g. certificate, licence, permit or approval) and the associated legislative framework;**
 - **Whether (for each) the authorization would set conditions and if yes, what issues would those conditions address;**
 - **Whether (for each) the authorization would require public and/or Indigenous consultation and if yes, provide information on the approach to be taken; and**
 - **Whether (for each) your ministry has guidance material that would be helpful to the Proponent or the Agency (please provide these as attachments or hyperlinks in your response).**

Under the **EPA**, the Minister has required the Proponent to submit and EIS. The Minister appointed an environmental assessment committee (EAC) made up of federal and provincial government departments with mandates related to specific components of the Project to provide scientific, technical and regulatory advice on the development of the EIS Guidelines and the review of the EIS. The following departments have representation on the EAC:

Provincial

- Department of Environment and Climate Change
 - Climate Change Branch
 - Environmental Assessment – Chair
 - Natural Areas
 - Pollution Prevention Division
 - Water Resources Management Division
- Department of Fisheries, Forestry and Agriculture
- Department of Health and Community Services
- Department of Immigration, Population Growth and Skills
- Department of Industry, Energy and Technology

- Department of Justice and Public Safety
- Department of Municipal and Provincial Affairs
- Department of Tourism, Culture, Arts and Recreation
 - Provincial Archaeology Office
 - Tourism Product Division
- Department of Transportation and Infrastructure

Federal

- Environment and Climate Change Canada
- Fisheries and Oceans Canada

On September 29, 2022, draft Guidelines were posted on the Project webpage for a required 40-day review period. During this period, comments were received from the public, including the QFN. All public comments were considered prior to finalizing the Guidelines. On December 15, 2022 the Minister issued final Guidelines to the Proponent, and the Guidelines were posted on the Project web page and announced to the public. The Proponent is consulting with various federal and provincial government departments and the public in the development of the EIS, and has up to six years from the date of the Minister's EIS decision on August 5, 2022 to submit an acceptable EIS. Upon submission, the EIS will be reviewed by the EAC and will undergo a required 50-day public review period, including notification of the QFN and MFN. The Minister will consider the advice of the EAC and all public comments and will advise the Proponent within 70 days of posting the EIS of whether it is acceptable or deficient. If the EIS is deficient, the Proponent will be required to provide additional information in an amendment to the EIS. The EIS amendment will be subject to a 50-day EAC and public review period, followed by the Minister's acceptability decision by day 70. The requirement for an amendment, subject to a 50-day government and public consultation period, will be repeated until the EIS is found to be acceptable. If/when the EIS is acceptable, a decision will be made by the Lieutenant Governor in Council as to whether the Project may or may not proceed. There is no legislated timeline for this decision.

Additional licenses and permits will be required for the project as well. The list will finalised following the evaluation of the EIS by the EAC. The Project must not proceed until/unless it has been released from further assessment under Part X of the **EPA**, subject to conditions. In accordance with the **EPA**, a licence, permit, approval or other document of authorization shall not be issued under another Act until/unless the project has been released from EA. Table 1 (below) presents a list of authorizations that would be required for the Project, the issuing government department, and links to the terms and conditions that typically accompany each authorization. Copies of terms and conditions are included in Attachment A for permits that are not digitally available. It is anticipated that additional authorizations will be required for the Project that will be described in the Proponent's EIS. Consultation is not required on permits, licences, certificates and other documents of authorization for projects that occur on the island of Newfoundland, unless specified in the table. Authorizations for Projects that occur in Labrador would generally require consultation with Indigenous governments and organizations, as recommended by the IAR.

Table 1. Preliminary list of authorizations, issuing agency, conditions, and where applicable, Indigenous/public comment period

Regulatory Approval	Issuing Agency	Conditions
1. Lieutenant Governor in Council	Environment and Climate Change (ECC) – Climate Change Branch	Section 4 of the Management of Greenhouse Gas Act (MGGA) regulates any industrial facility that emits 15,000 tonnes of greenhouse gas (GHG) emissions in any year after the coming into force of this Act. An industrial facility that is regulated under section 4 of the MGGA must provide information regarding best available control technology (BACT) to the minister for approval by the Lieutenant Governor-in-Council
2. Water Use License	ECC– Water Resources Management Division (WRMD)	Conditions would be specific to Project requirements. Example: https://www.gov.nl.ca/ecc/files/WUL-21-12126.pdf
3. Flood Risk Area	ECC-WRMD	Specific to Project layout and design.
4. Permit to Alter a Body of Water (Instream Works)	ECC – WRMD	Example: https://www.gov.nl.ca/ecc/files/ALT11041-2020.pdf
5. Non-domestic Well Permit	ECC – WRMD	Example: https://www.gov.nl.ca/ecc/files/GW11578-2021.pdf
6. Development within shore water zones and infilling within 15 metres of bodies of water	ECC – WRMD	Example: https://www.gov.nl.ca/ecc/files/ALT11490-2020.pdf and https://www.gov.nl.ca/ecc/files/ALT11329-2020.pdf
7. Hydrogeological assessment of the Project area	ECC – WRMD	Specific to Project layout and design to address water quality/quantity concerns related surface water and groundwater,
8. Real-time water quality/quantity Network	ECC - WRMD	Adaptive management, should adverse effects on water quality/quantity be detected
9. Certificate of Approval	ECC – Pollution Prevention Division (PPD)	Required for the construction and operation of the hydrogen/ammonia plant. Surface water, groundwater, and effluent discharge monitoring requirements identified for the construction and operation of the Project would be incorporated into the Certificate of Approval.
10. Waste Management Plan	ECC - PPD	Prior to construction, the Proponent would be required to provide a detailed Waste Management Plan for the approval of the ECC Minister. This plan must cover all aspects waste generation, storage, transport and disposal for the proposed activities and must include information such as the types and volumes of wastes produced and where those wastes will be treated or disposed of.
11. Benefits Agreement and a Gender, Equity, Diversity and Inclusion Plan	Industry, Energy and Technology (IET)	The Benefits Agreement must also include a Gender Equity, Diversity and Inclusion Plan that meets the requirements of the Minister responsible for Women and Gender Equality. Should the Project be released from EA, the Proponent would be required to finalize the Benefits Agreement and Gender Equity,

		Diversity and Inclusion Plan and obtain Ministerial approval prior to the commencement of site activities.
12. Environmental Effects Monitoring Programs	ECC – EA Division	The EIS is required to include EEMPs that monitor the efficacy of measures undertaken to mitigate adverse effects throughout the life of the Project, and adaptive management would be required to improve/enhance mitigations where needed.
13. Quarry Permit/Lease	IET	Quarry Permit Standard Terms and Conditions, for any quarries required in the construction, operation and maintenance and decommissioning rehabilitation phases. See Attachments for example of terms and conditions.
14. Commercial Operating/Cutting Permit	Fisheries, Forestry and Agriculture (FFA)	Terms and conditions for commercial cutting permits criteria vary from district to district, and the Proponent is required to submit an application at the local Forestry office. Operating permits are available at the local forestry office and are required prior to cutting activities during the fire season. Operation permits have information pertaining to safe practices during forest fire season.
15. Crown lands Permit	FFA	Crown lands permits will be required prior to development on all crown lands, and will include terms and conditions.
16. Research Permit Research Permit Newfoundland and Labrador Wildlife Regulations (NLWLR)	FFA	Pursuant to Section 18 of the NLESA , a Research Permit will be required for any Species at Risk (SAR) surveys that could potentially disturb the species (e.g. call-backs, plant surveys etc.) during the EA process (pre-approval stage) or thereafter. Pursuant to Section 86 of the NLWLR , a permit to conduct research will be required for any surveys that could potentially disturb or harassed species protected and managed under the Wild Life Act . IAR would recommend IGO's for consultation for projects that occur in Labrador.
17. Economic Activity Permit	FFA	Pursuant to Section 19 of the NLESA , an Economic Activity Permit is required for a project to proceed if potential impacts to Species at Risk (SAR) have been identified during the pre-approval stage. A prerequisite for this permit is the approval, by the Wildlife Division, of an Impacts, Mitigation, and Monitoring Plan (IMMP) that has been developed in consultation with the Division. The IMMP must outline appropriate mitigations to minimize impacts to SAR and must include a long-term monitoring plan for the impacted species. Once approved by the Wildlife Division, the IMMP is provided to the Lieutenant-Governor in Council for consideration. Following their review of the IMMP, the Lieutenant-Governor in Council Cabinet may choose to authorize the Minister to issue a Section 19 permit, and consultation is a part of that process.
18. Surveys for rare flora and fauna and other vegetation.	FFA TBC	At the discretion of the Wildlife Division, pre-approval surveys are required in situations where project activities are likely to interact with designated species or species of conservation concern. Survey and reporting requirements vary between

		species, and proponents are expected to consult with Wildlife Division for guidance.
19. Bat Monitoring Program	FFA	<p>A pre-construction bat monitoring program is required and must include the active season (April 15 – Oct 31) to obtain complete information on spring migration, summer resident bat activity, and fall migration.</p> <p>In addition, proponents are expected to consult with the Wildlife Division about the specific requirements for all phases of a project, including construction and operational/post-construction.</p>
20. Environmental Effects Monitoring Programs	FFA	Conditions may be required for species buffers, operational mitigations based on existing and newly acquired (pre-construction survey) data, as well as post-construction mortality monitoring for species currently not listed under NLESA but covered under provincial legislation; e.g. raptors, plants, provincially managed bird species, furbearers etc.
21. Personnel Elevators/Lifts, (Registration)	Digital Government and Service NL (DGSNL)	Once a permit is issued the work shall be inspected by DGSNL prior to going into operation/service and an annual inspection once in operation. Frequency of inspection can vary based on type of equipment.
22. Electrical Plans and Permits	DGSNL	Electrical plans must be submitted to the Government Service Centre for review and approval. An electrical permit is required for each meter.
23. Development Permit	DGSNL	<p>A permit is required for the construction of an access road in a protected area, or for any access onto a protected road.</p> <p>The Minister of MAPA has the discretionary authority to require the Proponent to carry out a Public Notice to collect comments. See Attachments for example of terms and conditions.</p>
24. Boilers/ Pressure Vessels & Registered Piping Systems (Permit)	DGSNL	Once a permit is issued the work must be inspected by DGSNL prior to going into operation/service and an annual inspection for equipment once in operation, no annual inspection for piping systems. Frequency of inspection can vary based on type of equipment.
25. Water and/or Sewage Treatment review	DGSNL	Terms and conditions are subject to type of system being constructed and environmental requirements. See Attachments for example of terms and conditions.
26. Building Accessibility and/or Fire and Life Safety review for all buildings	DGSNL	Terms and conditions are subject to type of construction and Building Accessibility and Fire and Life Safety requirements. See Attachments for example of terms and conditions.
27. Emergency Response Plan	DGSNL-OHS	The Proponent is required to develop an Emergency Response Plan that describes detailed measures to be taken to effectively respond to any foreseeable mishap that may occur as a result of the undertaking.
28. Food Premises	Health and Community Services	The Proponent would be required to obtain a license for the preparation and sale of food, in accordance with the Food Premises Act . For specific requirements, see the Food Premises Regulations at https://assembly.nl.ca/legislation/sr/regulations/rc961022.htm .

29. Development Permit (Municipal)	Municipal and Provincial Affairs	If the Project overlaps a municipality, the Proponent must contact that municipality to assess if a development permit is required within planning boundaries. Under specific circumstances, public consultation may be required.
30. Approval under the Fisheries Act	Fisheries and Oceans Canada (DFO)	If the Proponent is conducting work in or near water they should refer to the Projects Near Water website to get information about how to comply with the Fisheries Act and as well as information on the project review process. The "Projects Near Water" website is located at http://www.dfo-mpo.gc.ca/pnw-ppe/index-eng.html . DFO does not require a public consultation for authorizations, unless the project will/may impact an Indigenous group. If so, DFO will require the Proponent to consult with the Indigenous group(s), but there is no timeline for this.

In addition, please refer to the Proponent's "List of Potential Permit / Approval / License Requirements for the Project Nujio'qonik," which IACC provided to the EA Division with this information request. Further, please see pages 34-40 of the document IAAC sent to the EA Division entitled 'Information submitted to the Agency by World Energy GH2 - May 19, 2023' for the Proponent's listing of potential approvals.

4. Confirm whether any authorization listed above would contemplate the following matters and if yes, discuss, in general, the benchmarks or standards to which a project of this nature may be held (be specific in relation to each point below that may be applicable to your ministry's mandate):

- **effects to fish and fish habitat;**
- **effects to wildlife, including migratory birds and species at risk;**
- **effects to the marine environment (e.g., disruption of historic contamination);**
- **accidents or malfunctions (e.g., ammonia or hydrogen leaks);**
- **alternative means of carrying out the project were not adequately considered;**
- **cumulative effects from past drilling, mining, milling, and accidents and malfunctions in the area,**
- **mistrust in the Proponent and the provincial process (e.g., perceived project-splitting);**
- **effects to Indigenous peoples (e.g., country foods, current use);**
- **effects to climate change from upstream and downstream impacts of hydrogen and ammonia production; and**
- **inadequate public and Indigenous engagement on the Project.**

All of the above matters are required to be addressed in the EIS. Additional permits and licenses as required will also address them; additional details on each point are provided below.

- **effects to fish and fish habitat**

The Guidelines require the EIS to assess the potential effects of the Project on fish and fish habitat and to identify measures that will be undertaken to mitigate adverse effects. DFO, FFA Wildlife Division, FFA Aquaculture Development Division, IAR, Office of Women and Gender Equality are represented on the EAC and have reviewed the registration, contributed to the development of the Guidelines and will review the EIS upon submission. The public will have an opportunity to review the Project and submit comments to the Minister for consideration. The MFN and QFN will be notified of the EIS submission and will have an opportunity to review the EIS and submit comments to the Minister for consideration. The EIS is required to describe:

- the existing environment, including aquatic environment, and provide a baseline study on aquatic environment;
- effects of the Project on water bodies including existing and potential commercial, recreational, and Indigenous fisheries and aquaculture operations;
- effects on fish habitat and fish populations by species including species of special concern, threatened and endangered species, and rare species;
- measures to mitigate effects on existing and potential commercial, recreational, and Indigenous fisheries and aquaculture operations; and
- measures to mitigate the adverse environmental effects of all phases of the Project on fish habitat and fish populations by species, including species of special concern, threatened and endangered species, and rare species.

Additionally, the following approvals from Table 1, above apply in full or in part to this concern: 4, 6, 8, 18, 20, 25, 30, if required.

- **effects to wildlife, including migratory birds and species at risk;**

The Guidelines require the EIS to describe the existing environment, including:

- flora and fauna including migratory birds protected by the **Migratory Birds Convention Act** (landbirds, shorebirds, seabirds and waterfowl) and
- species at risk and of conservation concern and their habitats, including designated critical habitat under the **Endangered Species Act, Species at Risk Act**, and areas of conservation concern (e.g. environmentally sensitive areas, such as national, provincial, and regional parks and reserves, ecologically and biologically significant areas (EBSA); protected areas, conservation agreement lands and habitat enhancement projects) (s.4.2.3).

A baseline study is required to focus on, at minimum, avifauna, species at risk and relevant habitat, and areas of conservation concern.

The Guidelines require the EIS to include a comprehensive analysis of the predicted environmental effects of the Project on flora and fauna (including bats, migratory birds, birds protected by the MCBA, moose, caribou, muskrat, species at risk and of conservation concern and the Limestone Barrens) and their habitat, including critical, sensitive and rare habitat.

Additionally, the following approvals from Table 1, above, apply in full or in part to this concern: 4, 6, 8, 12, 14-20, 30, if required.

- **effects to the marine environment (e.g., disruption of historic contamination);**

Section 2.1 (Study Areas) of the Guidelines requires a description of the geographical setting in which each component of the Project will take place. Aerial images and a precise description of geographic boundaries of all proposed Project sites shall be provided, including but not limited to the following sites: hydrogen and ammonia production facility and ancillary structures and mode and route of transport of hydrogen and ammonia from Stephenville to markets (also in s.2.3.3)(p. 8-9).

Section 4.2.2 of the Guidelines requires the Proponent to describe the relevant components of the aquatic environment within the study area of the VECs, including:

- commercial, recreational, and Indigenous fisheries, including marine aquaculture operations;
- the value of existing industries, including commercial, recreational, and Indigenous fisheries;
- identification of the marine transportation route for incoming supplies associated with the Project, and outgoing hydrogen/ammonia products;
- any Project location overlap with existing land, freshwater and marine users, and municipal boundaries and planning areas;
- effects on marine navigation (e.g. commercial and recreational boat traffic) and biosecurity at the port of Stephenville in relation aquatic invasive species and the movement of international vessels.

Section 2.3.1 of the Guidelines (General Layout) requires information regarding known existing contaminated sites within and near the Project study area.

Additionally, approval 30 from Table 1, above, applies in full or in part to this concern, if required.

- **accidents or malfunctions (e.g., ammonia or hydrogen leaks);**

The Guidelines require that the EIS identify and describe the potential accidents and malfunctions related to the Project, including an explanation of how those events were identified, potential consequences (including the potential environmental effects), the worst case scenarios as well as emergency scenarios that can reasonably be expected to occur, and the effects of these scenarios. The EIS must explain the potential quantity, mechanism, rate, form, and characteristics of the materials likely to be released into the environment during the malfunction and accident events. Potential accidents and malfunctions may include, but not be limited to the following occurrences:

- accidental spills and/or releases of hydrogen, ammonia, chemicals, pesticides or any potentially hazardous substance on land or in air or water;
- fire and explosions;

- traffic accidents;
- dislodging of a wind tower or turbine blade;
- failure of industrial water supply;
- energy generation/transmission failure; and
- wildlife emergencies/incidents (e.g. bird mortality events of 10 or more birds in a single event, or an individual species at risk during a single event due to collisions with wind energy infrastructure).

The EIS shall assess the likelihood of occurrence and consequence severity of the accidents and malfunctions.

Additionally, the following approvals from Table 1, above, apply in full or in part to this concern: 8, 9, 10, 12, 20-27, 30, if required.

- **alternative means of carrying out the project were not adequately considered;**

The Guidelines require the EIS to “include a detailed analysis of the advantages and disadvantages to the environment of the undertaking as proposed; an analysis of the alternatives to the undertaking; and a summary with clearly described methods and sufficient information to justify the selection of the preferred alternative, as well as an explanation for rejecting other alternatives (p.16-7).

Sections 3.1 and 3.2 of the Guidelines require the EIS to describe alternatives to the Project, and alternative methods of carrying out the Project, and list specific criteria that must be considered. In describing alternative means of carrying out the Project, the Proponent may consider, but not be limited to, a discussion of the following:

- Sources of energy, including the Newfoundland and Labrador Hydro (NL Hydro) power grid, offshore wind energy generation, etc.;
 - Wind energy turbine sizes and types (e.g. bladeless) and options for transformer chemicals;
 - Locations, land area requirements and access routes for wind energy generation sites, transmission lines, hydrogen and ammonia production facility, including consideration of locating all wind turbines outside protected public water supply areas or protected wellhead areas;
 - Water source(s) for the hydrogen and ammonia production facility;
 - Order and timelines for construction and operational phases; and
 - Options for aboveground and underground storage of hydrogen and carbon dioxide including the feasibility of utilizing salt deposits for underground storage.
- **cumulative effects from past drilling, mining, milling, and accidents and malfunctions in the area,**

The Guidelines require the EIS to identify and assess the Project’s cumulative environmental effects:

- identify and justify the environmental components that will constitute the focus of the cumulative effects assessment, including but not limited to, mining operations and supporting infrastructure, water resources, marinas, quarries, permanent and temporary dwellings, existing contaminated sites, outfitters and trails, (e.g. International Appalachian Trail NL and Outer Bay of Islands Enhancement Committee trails),. The Proponent’s assessment should emphasize the cumulative effects on the main VECs that could potentially be most affected by the Project;
- present a justification for the geographic and temporal boundaries of the cumulative effects assessment;
- describe and justify the choice of projects and selected activities for the cumulative effects assessment, including blasting activities during construction and maintenance of the Project; and
- describe the mitigation measures and determine the significance of the residual cumulative effects.
 - **mistrust in the Proponent and the provincial process (e.g., perceived project-splitting);**

The registration document for this Project focused wind energy development on the Port au Port Peninsula and noted that there may be additional sites for wind energy development without providing further details. The Guidelines address this deficiency by requiring the Proponent to apply the Guidelines to all components that make the Project operational and viable. This would include any sites proposed for wind generation and associated access and infrastructure that were not described in the Proponent’s registration document.

The Guidelines require the EIS to describe the Proponent’s history/experience with wind energy generation and hydrogen and ammonia production, identifying any previous and current such projects and their associated successes, failures and lessons learned.

- **effects to Indigenous peoples (e.g., country foods, current use);**

The Guidelines require the EIS to describe existing land and resource use, heritage and cultural resources and communities. Section 4.2.5 of the Guidelines requires the description of heritage and cultural resources including historic, cultural, paleontological, and architectural and tourism generating sites. This section also requires the description of burial, cultural, spiritual and heritage sites. Section 4.3 of the Guidelines (Baseline Studies) requires the EIS to describe the existing environment, the predicted environmental effects of the Project, measures that will be undertaken to mitigate adverse effects, residual effect, and a follow up monitoring program.

Section 4.3.2 of the Guidelines (Aquatic Environment) requires the EIS to describe the relevant components of the aquatic environment within the study area of the VECs, including, but not limited to: commercial, recreational, and Indigenous fisheries.

- **effects to climate change from upstream and downstream impacts of hydrogen and ammonia production;**

The Guidelines require the EIS to consider/describe effects to climate change in the following sections: rationale for the undertaking, construction, operation and maintenance, decommissioning and rehabilitation, atmospheric environment, predicted environmental effects and, mitigations. The Climate Change Branch of the Department will review the EIS and public comments related to climate change, and will provide regulatory, scientific and technical advice to the Minister. The Climate Change Branch administers the **Management of Greenhouse Gases Act** and regulations. ECCC will review the EIS and it is anticipated will advise the Minister on the impacts of the Project on climate change, and whether/how the Project contributes or hinders Canada's ability to reach its climate change goals.

The description and operation of the plant with emissions is required.

Additionally, approval 1 from Table 1 above, applies in full or in part to this concern, if required.

- **inadequate public and Indigenous engagement on the Project.**

Upon EA registration of the Project for environmental assessment, notification was sent to environmental groups, media, government agencies, municipal organizations and interested members of the public. Notice of the Environmental Assessment Bulletin was also posted to the Department's Twitter Account and the Government News Releases webpage.

The Towns and Local Service Districts of Black Duck Brook and Winterhouse, Campbell's Creek, Mainland, Piccadilly Head, Piccadilly Slant-Abraham's Cove, Sheaves Cove, Three Rock Cove, West Bay, Ship Cove-Lower Cove-Jerry's Nose, Cape St. George, Kippens, Lourdes, Port au Port East, Port au Port West-Aguathuna, Stephenville, and Stephenville Crossing. A letter was also sent to the Qalipu First Nation, notifying them of the project registration and inviting their review comments (a joint submission of comments was received from the QFN and MFN).

Upon registration, a Project information page was posted on the Department's web page, which provides an overview of the Project, including the registration submission, dates for public consultation and the Minister's decision, the Minister's decision letter, draft and final EIS guidelines, and links to all public announcements in the EA Bulletins.

The EA registration review for the Project included a 35-day public review period. The development of Guidelines included a 40-day public review of draft EIS guidelines, prior to the Minister issuing final Guidelines to the Proponent. All public comments were considered prior to the Minister's EIS decision and issuing the guidelines. The Guidelines require the Proponent to conduct public meetings at a place adjacent to or in the geographical area of the undertaking, to provide information concerning the undertaking to the people whose environment may be affected by the undertaking and to record and

respond to the concerns of the local community regarding the environmental effects of the undertaking. The concerns brought forward and the Proponent's responses to the concerns are required to be described in a separate chapter of the EIS.

The Guidelines require the Proponent to provide an opportunity for interested members of the public to meet with the proponent at a place adjacent to or in the geographical area of the undertaking, in order to:

- provide information concerning the undertaking to the people whose environment may be affected by the undertaking; and
- record and respond to the concerns of the local community regarding the environmental effects of the undertaking; and
- the EIS must describe, in a separate chapter, concerns brought forward during public consultations and measures the Proponent is undertaking to mitigate those concerns.

The Proponent has held at least four public meetings in geographical areas in the vicinity of the Project, and a representative of the EA Division attended each of the four meetings. A copy of the Proponent's Public Consultation Plan is provided in Attachment B.

5. Have you received public comments/concerns in relation to the Project? If yes, provide an overview of the key issues and the way in which (in general terms) your ministry intends to address (or would normally manage) these matters.

During the registration phase of the EA, the Department received approximately 300 public comments. The number of comments in favor of the Project was approximately equal to the number opposed. Other comments requested additional information in further assessment.

The main concerns raised by the public are:

- Human health and safety (noise - audible and low frequency infrasound), shadow flicker, vibration, ice shedding, turbine navigation lights, various health symptoms,
 - Human health and safety concerns are addressed in the Guidelines which require the EIS to describe:
 - the scope of the Project for which the EIS is being conducted including the construction, operation, maintenance, foreseeable modifications of all Project-related facilities, and the closure, decommissioning and rehabilitation of Project sites;
 - baseline study for atmospheric environment including air quality, noise, vibration, and light;
 - predicted environmental effects (vibrations, noise emissions and noise levels, light emissions and shadow flicker/nighttime flicker, dust and air emissions and ice throw from wind turbines);
 - mitigations (vibrations, noise emissions and noise levels, light emissions and shadow flicker/nighttime flicker, dust and air emissions and ice throw from wind turbines);

- significance of residual effects, and
 - Public Participation Plan.
- Lack of information on Project components and related impacts.
 - Section 2.1 of the Guidelines require the EIS to describe the geographical settings in which all components of the Project will take place. Aerial images and a precise description of geographic boundaries of all proposed Project sites shall be provided, including but not limited to the following sites:
 - wind turbines, transmission lines, substations, access roads, and laydown areas;
 - hydrogen and ammonia production facility and ancillary structures, flaring/venting radius, auxiliary power sources, and storage facilities for explosives and hazardous materials, gas and liquid fuel;
 - water sources and infrastructure to support the hydrogen and ammonia production facility;
 - above ground and underground sites associated with salt deposits intended for the storage of carbon, hydrogen and/or ammonia; and
 - mode and route of transport of hydrogen and ammonia from Stephenville to markets
 - Section 2.1 further requires the EIS to provide the rationale used to delineate the boundaries of the study areas, and to focus on those aspects of the Project and its settings that are important in order to understand the potential environmental effects of the Project, including the following information:
 - GPS locations and proximity of Project components to existing environmental features, including but not limited to:
 - nearest temporary and permanent residential dwellings and commercial and industrial sites;
 - municipal boundaries, planning areas and infrastructure;
 - communities and jurisdictions without municipal plans and development regulations;
 - traditional, cultural and recreational sites;
 - tourist establishments/attractions, outfitter camps and trails;
 - domestic wood cutting areas;
 - industrial, private and public water supplies;
 - existing electrical infrastructure; and
 - commercial fishing areas, navigation routes and aquaculture sites;
 - identification of any project location overlap with existing land, freshwater and marine users, and municipal boundaries and planning areas; and
 - description of the environmental significance and value of the geographical setting in which the Project is proposed to take place, and the surrounding area, including but not limited to:
 - environmentally sensitive areas, such as national, provincial, and regional parks and reserves;

- ecologically and biologically significant areas (EBSA) and protected areas including proposed protected areas (e.g., proposed Cape St. George Ecological Reserve);
 - wetlands, estuaries, lakes and rivers; and
 - habitats of federally or provincially listed species at risk, including critical habitat for the designated species and other sensitive areas.
 - Section 2.3 of the Guidelines requires the EIS to describe the full scope of the Project for which the EIS is being conducted including: the construction, operation, maintenance, foreseeable modifications of all Project-related facilities, and the closure, decommissioning and rehabilitation of Project sites.
 - The Guidelines require information and studies regarding environmental effects (Sections 4 - 6), mitigations and plans (Section 7) and residual effects (Section 8).
- Project alternatives (alternatives for turbine location and plant location not described),
 - Sections 3.1 and 3.2 of the Guidelines require the EIS to describe alternatives to the Project, and alternative methods of carrying out the Project, and list specific criteria that must be considered. In describing alternative means of carrying out the Project, the Proponent may consider, but not be limited to, a discussion of the following:
 - Sources of energy, including the Newfoundland and Labrador Hydro (NL Hydro) power grid, offshore wind energy generation, etc.;
 - Wind energy turbine sizes and types (e.g. bladeless) and options for transformer chemicals;
 - Locations, land area requirements and access routes for wind energy generation sites, transmission lines, hydrogen and ammonia production facility, including consideration of locating all wind turbines outside protected public water supply areas or protected wellhead areas;
 - Water source(s) for the hydrogen and ammonia production facility;
 - Order and timelines for construction and operational phases; and
 - Options for aboveground and underground storage of hydrogen and carbon dioxide including the feasibility of utilizing salt deposits for underground storage.
- Cumulative effects,
 - The Guidelines require the EIS to identify and assess the Project's cumulative environmental effects. The Guidelines define cumulative effects as changes to the environment and resident species in the area due to the Project and combined with the effects of past, present, and planned projects and/or activities. The EIS must consider the cumulative environmental effects for the life of the Project. The Guideline advise that the boundaries

for assessing the cumulative effects of the Project in combination with other projects and activities that have been or will be carried out will generally be different from (larger than) the boundaries for assessing the effects of the Project, and require that the EIS shall:

- identify and justify the environmental components that will constitute the focus of the cumulative effects assessment, including but not limited to, mining operations and supporting infrastructure, water resources, marinas, quarries, permanent and temporary dwellings, existing contaminated sites, outfitters and trails, (e.g. International Appalachian Trail NL and Outer Bay of Islands Enhancement Committee trails),. The Proponent's assessment should emphasize the cumulative effects on the main VECs that could potentially be most affected by the Project;
 - present a justification for the geographic and temporal boundaries of the cumulative effects assessment;
 - describe and justify the choice of projects and selected activities for the cumulative effects assessment, including blasting activities during construction and maintenance of the Project; and
 - describe the mitigation measures and determine the significance of the residual cumulative effects.
- Impacts on recreation (hunting area, domestic wood harvesting, eco-tourism, snowmobiling, berry picking, bird watching),
 - Section 2.0 of the Guidelines (Study Areas) require the EIS to describe those aspects of the Project and its settings that are important in order to understand the potential environmental effects of the Project, and shall provide the following information:
 - GPS locations and proximity of Project components to existing environmental features, including but not limited to:
 - i. nearest temporary and permanent residential dwellings and commercial and industrial sites;
 - ii. municipal boundaries, planning areas and infrastructure;
 - iii. communities and jurisdictions without municipal plans and development regulations;
 - iv. traditional, cultural and recreational sites;
 - v. tourist establishments and attractions, outfitter camps and trails;
 - vi. domestic wood cutting areas;
 - vii. industrial, private and public water supplies;
 - viii. existing electrical infrastructure; and
 - ix. commercial fishing areas, navigation routes and aquaculture sites;
 - Section 4.2.4 of the Guidelines require the EIS to include a description of relevant land and resource use within the study area of the VECs including: domestic wood harvesting areas; tourism operators; outfitter operators; cabins; multi-use trails; landscapes and viewsapes; and recreational

- activities (e.g. trails, scenic lookouts, hiking, hunting, fishing, swimming, berry picking, etc.); unique sites (e.g., scenic lookouts, etc.).
- The following plans are required:
 - Public Participation Plan,
 - Domestic Wood Cutting Consultation Plan, and
 - Environmental Effects Monitoring Programs (EEMPs) for Species at Risk Impacts Mitigation and Monitoring Program, Avifauna Impacts Mitigation and Monitoring Program and an Outfitter Effects Monitoring Program.
 - Impacts on viewscales,
 - The Guidelines require the EIS to describe land and resource use within the study area of the Valued Environmental Components (VECs) including
 - Landscapes, viewscales, and the extent of developed and undeveloped land; and
 - the effects of all phases of the Project on human health and quality of life, including effects on viewscales and measures to mitigate adverse effects;
 - The EIS must predict environmental effects of the Project including a comprehensive analysis of viewscales.
 - Lack of consultation and transparency
 - The EA process is legislated in the **EPA** and Environmental Assessment Regulations, and described in the 'Environmental Assessment – A Guide to the Process' guidance document at https://www.gov.nl.ca/ecc/files/GUIDE-TO-THE-PROCESS_May-2023.pdf and includes, but is not limited to the following components with respect to consultation and transparency:
 - Project registration commences with posting the registration submission on a dedicated project webpage and announcing the registration in an Environmental Assessment News Bulletin (EA Bulletin). The EA Bulletin is published on the Government of Newfoundland and Labrador's website and twitter account, and on the Department's website and twitter account, and the announcement advises of the registered undertaking and invites the public to review and submit comments to the Minister. A notification of the registration submission is sent to subscribers of the EA Bulletin, which includes environmental groups, media, government agencies, municipal organizations, interested members of the public and anyone who wishes to subscribe.
 - The registration submission is sent to more than 20 interested federal and provincial government departments and agencies that provide regulatory, scientific and technical advice to the Minister;
 - Registration notification letters are sent to Indigenous governments and organizations (as recommended by IAR), municipalities, communities and local service districts in the project vicinity;
 - A 35-day government, Indigenous and public review is conducted;

- The Minister considers all government, Indigenous and public comments prior to making a project decision.
- The Minister's decision is given to the proponent within 45 days of registering the undertaking, and the decision letter is posted on the Department's project web page. The decision is announced in an EA Bulletin and Indigenous groups and the public are notified of the decision in the same manner as described above for announcing and notifying of the registration.
- The above process was followed for the registration of the Project, and the Minister determined that an EIS was required.
- The EIS was posted on the Department's project webpage, and the announcement and notification followed the manner described above for the registration submission.
- An EIS provides additional opportunities for Indigenous and public consultation as follows:
 - A 40-day government, Indigenous and public review of draft Guidelines prior to the Minister issuing approved guidelines;
 - A requirement for the proponent to conduct public consultation during EIS development;
 - A 50-day government, Indigenous and public review period;
- The Guidelines require the EIS to include a Public Engagement Plan;
- The Guidelines require the Proponent to provide a paper copy of the EIS in public libraries in the vicinity of the Project; and
- The Proponent's Public Consultation Plan is included in Attachment B.

Further, the Guidelines require the EIS to describe all components and sites that are needed to make the Project operational and viable (i.e. Sites B and C referenced in the Proponent's environmental assessment registration document if applicable and other sites if required).

The Guidelines were drafted by the EAC in consideration of the concerns noted above and other concerns, which were brought forward by the public during the Registration and draft guidelines review. The Proponent is working to complete the EIS as per requirements in the EIS guidelines. Should the Project be released from EA, the EA Division is responsible for overseeing that the conditions of release are being met and that commitments made in the Proponent's EA submissions are upheld.

6. Have you received Indigenous community comments/concerns in relation to the Project? If yes, provide an overview of the key issues and the way in which (in general terms) your ministry intends to address (or would normally manage) these matters.

The EA Division received comments from members of the QFN and MFN groups, and the Minister considered these comments prior to determining that an EIS is required for the

Project. These concerns helped form the information requirements of the Guidelines, including but not limited to:

- Concerns about effects on the existing environment:
 - The Guidelines require the EIS to describe birds, fish and fish habitat, wildlife and Species at Risk.
 - Section 4.3.2 of the Guidelines require an Aquatic Environment baseline study is required that, in part, focuses on fish and fish habitat. This study requires the description of the limnology, hydrology, freshwater and marine biota, fish species (i.e. freshwater and marine species including marine mammals), associated habitats and habitat distribution that have the potential to be affected by Project activities.
 - A Terrestrial Environment baseline study is required that includes avifauna, Species at Risk, bays, plants, moose, caribou, muskrat and areas of conservation concern.
 - A Species at Risk Impacts Mitigation and Monitoring Program and Avifauna Impacts Mitigation and Monitoring Program is required.

- Concern that an archeological assessment has not been done as the area holds many potential Beothuk, Mi'kmaq and early indigenous sites:
 - The Guidelines require the EIS to describe the existing environment, including land and resource use, heritage and cultural resources, and communities;
 - Section 4.2.5 of the Guidelines require the EIS to describe relevant cultural and heritage resources in the study areas of the VECs including historic and archaeological resources;
 - A Land and Resource Use baseline study is required that requires information on traditional, cultural and recreational land use in the Project area; and
 - The Provincial Archaeology Office is represented on the EAC and will review the Project to determine if additional work is required to assess archaeological concerns.

- Potential effects on residents and drivers in the area, including shadows, light flicker and infrasound.
 - The Guidelines require the EIS to describe shadow flicker, light flicker and noise with potential effects, mitigations, significance of residual effects and monitoring required.

- Evaluation of impacts of water taking, discharges, land clearing, land-use changes and other projects activities on water quality/quantity, including drinking water quality.
 - The Guidelines require the EIS to describe the existing environment, construction, operation, maintenance, decommissioning and rehabilitation of the Project including water resources components. The EIS requires the description of predicted effects, mitigations and monitoring including water taking, discharges, land clearing, land-use changes and other projects activities on water quality/quantity.

- The EIS shall describe measures that will be undertaken to mitigate the effects of Project operations on water quantity and quality of surface water bodies, groundwater aquifers and wetlands in and adjacent to the Project area, including but not limited to the following:
 - changes in nearby surface and groundwater quality and quantity resulting from water withdrawals from the Project, including potential effects on industrial and other users of nearby surface water and groundwater aquifers;
 - effects of water withdrawal for the hydrogen and ammonia production facility on surface- water flow, groundwater movement and aquifer recharge zones;
 - effects of water withdrawal for the hydrogen and ammonia production facility on known contaminated sites;
 - effects of wind turbines and associated infrastructure on water quality in protected public water supply areas, protected wellhead areas, unprotected public drinking water source areas, and private water sources;
 - effects of wastewater discharge from any treatment needed to produce required water quality for hydrogen/ammonia production or other desired use, on receiving environment;
 - capacity of receiving environment to manage wastewater discharge from the hydrogen/ammonia production facility;
 - effects on existing and
- Through the registration review a number of approvals were identified regarding these concerns (see Table 1) such as from the Water Resources Management Division:
 - Water Use License,
 - Flood Risk Area,
 - Permit to Alter a Body of Water (Instream Works),
 - Development within shore water zones and infilling within 15 metres of bodies of water,
 - Hydrogeological assessment of the Project area, and
 - Real-time water quality/quantity Network.
- Increased traffic in the Port of Stephenville could conflict with current uses by fishing operations.
 - Section 4.2.2 of the Guidelines require the Proponent to describe the relevant components of the aquatic environment within the study area of the VECs, including:
 - commercial, recreational, and Indigenous fisheries, including marine aquaculture operations;
 - the value of existing industries, including commercial, recreational, and Indigenous fisheries;
 - identification of the marine transportation route for incoming supplies associated with the Project, and outgoing hydrogen/ammonia products;

- any Project location overlap with existing land, freshwater and marine users, and municipal boundaries and planning areas;
 - effects on marine navigation (e.g. commercial and recreational boat traffic) and biosecurity at the port of Stephenville related to aquatic invasive species and movement of international vessels.
- Potential accidents and malfunctions Storage and transport of dangerous goods including ammonia and liquid hydrogen poses a risk to human and wildlife in the case of an accident of malfunction (e.g. leak, spill, fire, explosion, etc.).
 - The Guidelines require the EIS to describe potential accidents and malfunctions related to the Project including spills (including ammonia and hydrogen), fire and explosions, traffic accidents, wildlife emergencies/incidents, etc.
 - The Guidelines require the EIS to include an Emergency Response/Contingency Plan and a Hazardous Materials Response and Training Plan.
- Concern that, as a First Nations, whose members actively use and rely on the resources in the Bay St. George area, it is crucial that a robust and meaningful consultation and engagement process be undertaken with the MFN and QFN. The specifics of this process must be negotiated directly with MFN/QFN and be commensurate with the scope and scale of the project. This is necessary to ensure that the lands, waters, and wildlife are being protected and our rights are being upheld.
 - The EA process provides an opportunity for the public (including the MFN and QFN) to submit comments for the Minister's consideration prior to each decision point. Effects on land and land use, water and wildlife must be described in the EIS, as well as measures that will be undertaken to mitigate adverse effects, the significance of residual effects, and a program of follow up monitoring. The QFN and MFN will be notified of the EIS once it has been submitted, and will have an opportunity to submit comments to the Minister during a 50-day review period.
The EIS, when submitted, must reflect extensive project consultation with indigenous groups..

Concerns brought forward by members and Chiefs of the QFN and MFN during the registration review and draft Guideline review have been incorporated into the EIS guidelines. IAR will be consulted on all EIS review comments submitted by the Chiefs/members of the QFN and MFN.

The information requirements of the Guidelines are summarized in the responses to Questions 4,5, and 6. Please consult the Guidelines at the link provided on page 3 for complete information requirements for the EIS.

- 7. Do you have any other information about the Project in relation to potential adverse effects or impacts to the public, or Indigenous peoples and their rights as protected under section 35 of the *Constitution Act, 1982*?**

Federal and provincial government departments, the QFN, MFN and the public will have an opportunity to review the EIS and submit comments for the Minister's consideration, prior to a decision on the Project. The significance of residual adverse effects will be considered prior to a determination as to whether or not the Project is to proceed.

Name of responder: Eric Watton

Title of responder: Senior Environmental Scientist

Date: August 18, 2023

Attachments