

# **GUIDELINES for Permitting of a Pre-Commercial Demonstration Phase for Offshore Renewable Energy Devices (Marine Renewables) in Nova Scotia**

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## **Introduction**

These guidelines outline the application of the regulatory process for approval procedures for all pre-commercial marine renewable energy generation devices in Nova Scotia territorial waters. It does not address the procedures for larger commercial scale wave, wind, tidal stream projects, tidal lagoons, or barrages.

This document outlines the current process that may be subject to change as a result of future Marine Renewable Energy Legislation. For information on the proposed legislation, please view our [Marine Renewable Energy Strategy](#) (released May 2012).

## **Background**

The offshore renewable energy industry is in its infancy and at the pre-commercial stage. This requires sites for installation of demonstration devices to validate the technologies used and demonstrate these technologies. Guidance on the regulatory process is intended to assist developers and stakeholders to understand how approvals are granted for Nova Scotia's offshore.

Tidal energy production requires care in planning as projects can greatly impact the environment and its users. The permitting of demonstration devices needs to be appropriate and proportionate to the risk and scale of the potential impacts of the devices involved so that the industry is given an opportunity to develop in a sustainable manner.

A demonstration (or pre-commercial) project is defined as being a project, the primary purpose of which is to test, prove, and validate new or innovative uses of technology or combinations of technologies.

A demonstration project may have a number of objectives:

1. Developing and validating engineering and technical aspects of devices and demonstration of their commercial potential;
2. Developing an understanding of the environmental impacts of devices and their potential impacts on other uses or users of the marine area through monitoring and research;
3. Evolving and refining of the regulatory process and adaptation as appropriate to new technologies and their impacts.

The Province's goal is that the demonstration phase be an information gathering and sharing phase for all parties, to acquire knowledge and put it into the public domain, to monitor environmental impacts,

and to develop further and prove new or innovative uses of technology in preparation for possible commercial development.

## **Location of Projects**

The Minas Passage of the Bay of Fundy was selected as the site for a demonstration project in Nova Scotia. The [Fundy Ocean Research Centre for Energy](#) (FORCE) was selected as a result of the Fundy Strategic Environmental Assessment (SEA).

Developers are expected to have sufficient knowledge and understanding of the local environment, its sensitive areas, and the risks associated with deployment in the Fundy environment.

## **Environmental Regulation**

### *a) Strategic Environmental Assessment (SEA)*

A Strategic Environmental Assessment (SEA) was conducted prior to the permitting of a demonstration project in the Bay of Fundy. This was a strategic assessment of the potential impacts of marine renewable energy technology on the environment and socio-economic impacts of marine renewable development in Nova Scotia. The SEA applied a broad sustainability lens to evaluate potential development scenarios.

The results from the Fundy SEA ([learn more](#)) informed the development and implementation of the Province's strategy for future marine renewable energy developments. Currently, the Fundy SEA is being revisited to update the state of knowledge of the industry to date and re-engage with stakeholders to discuss plans to build the industry carefully in stages in order to the remaining knowledge gaps.

An additional SEA has begun for the Cape Breton Coastal Region, inclusive of the Bras d'Or Lakes.

### *b) Provincial Environmental Assessment*

All demonstration projects will require site specific Environmental Assessments (EA). Developers are encouraged to consult on scoping for individual projects so as to ensure the views of stakeholders are considered in preparing those EAs. EAs will need to be comprehensive to provide clarity on the likely impacts and the risks associated with them.

For more information on the environmental assessment process, proponents can refer to the Department of Environment's [Guide to Environmental Assessment](#).

### *c) Federal Canadian Environmental Assessment*

A federal Environmental Assessment (under Canadian Environmental Assessment Act) may be required when a federal authority provides financial assistance to the proponent; sells, leases, or otherwise disposes of federal lands; or issues a permit, license, or any other approval as prescribed in the *Law List Regulations*.

Proponents must provide levels of data for the EA that are proportionate to the risk and scale of potential environmental effects. Where greater risks are identified, assessment requirements will be more rigorous, and any mitigation measures and monitoring requirements will be more onerous. The EA process ensures that site decisions are made in a way that recognizes and avoids any significant adverse environmental effects of projects, including effects on other users of the ocean or on the marine environment. If a federal Environmental Assessment is triggered, projects may undergo a joint EA process between Nova Scotia and the federal government to avoid duplication.

Basic information on the federal EA process can be found through the [Canadian Environmental Assessment Agency](#).

Completion of an SEA will be a pre-condition for the start of any demonstration phase and must include full public consultation. See [Offshore Renewable Energy Generation Regulatory Flow-Chart for Industry Initiated Test and Commercial Sites](#) for information on the streamlined policy process for developers.

## **Regulatory Framework**

The [Regulatory Flow-Chart for Test and Commercial Sites](#) details both the governance regime and process for the issuance of authority for industry-initiated offshore energy generation site(s).

Currently, the Province initiates a request for proposals (RFP) for the development of test or commercial site(s). RFPs provide an information package detailing criteria that must be addressed by all interested parties—no proposal will be considered unless the applicant can provide proof of technical and financial feasibility and insurability.

Proposals are then submitted to the Nova Scotia Department of Energy. An evaluation will be conducted by an Interdepartmental Provincial Review Committee (Review Committee) comprised of representatives from:

- Natural Resources;
- Energy; and
- Environment.

Technical experts and other representatives will be consulted as required. The Review Committee may select the successful proponent(s) and notify the proponent(s) of the award. If accepted, DNR will notify the public of the award, and the commencement of a 30-day public comment period will begin.

Note: This process will be amended with a new licensing system once the Province passes Marine Renewable Energy Legislation in spring 2013.

## **One-Window Standing Committee**

The Nova Scotia Government and federal government have agreed upon a process to ensure that the regulatory process for offshore renewable energy demonstration projects is coordinated, efficient, and streamlined as much as possible. A One-Window Standing Committee (Standing Committee) has been established to do so. This consists of key federal and provincial regulators and government departments including the following:

- Natural Resources Canada (NRCan);
- Environment Canada (EC);
- Fisheries and Oceans Canada (DFO);
- Canadian Environmental Assessment Agency (CEAA);
- Transport Canada (TC);
- NS Environment;
- NS Labour;
- NS Energy;
- NS Fisheries and Aquaculture; and
- NS Department of Natural Resources.

The Committee allows proponents to meet with member departments to discuss and review a proposed project. The proponent must submit an application for development of the site to each of the regulators noted above in addition to other applicable regulators as required.

Proponents planning tidal projects should contact the Nova Scotia Department of Energy early in the project planning and design process to meet with the One-Window Standing Committee.

## **Relevant Legislation**

Provincial legislation that may be applicable to these types of projects includes, but is not limited to:

- Assessment Act;
- Beaches Act;
- Crown Lands Act;
- Electricity Act;
- Endangered Species Act;
- Environment Act;
- Fisheries and Coastal Resources Act;
- Integrated Resource Management (IRM) Review;
- Municipal Government Act;
- Parks Act;
- Provincial Parks Act;
- Public Utilities Act;

- Special Places Protection Act;
- Sustainability Act; and
- Wilderness Areas Protection Act.

Federal legislation that may be applicable includes:

- Canadian Environmental Assessment Act;
- Canadian Environmental Protection Act;
- Fisheries Act;
- Migratory Birds Convention Act;
- Navigable Waters Protection Act;
- Oceans Act; and
- Species at Risk Act.

### **DNR's Letter of Authority**

Upon expiry of the 30-day public comment period, DNR may issue a Letter of Authority for a two year term with an option to renew for a further two years. The Letter of Authority will contain a condition prohibiting installation of devices until DNR receives copies of all written approvals and permits. The fee for the letter of authority will be \$200.00 Canadian. The Letter of Authority may be amended from time-to-time in order to capture special conditions directed by regulators.

Subsequent to device installation, proponents will be subject to an environmental monitoring program. Should the project be in non-compliance with the terms and conditions of the Letter of Authority, it may be suspended or terminated. Should the Province consider the project not to be in the "best interests" of the Province, the Letter of Authority may be terminated without compensation to the proponent. In the case of cancellation or termination, the operators of the devices must immediately remove the device(s) and rehabilitate the site in a manner approved by the Province.

If the testing of the device proves to be successful and there are no significant adverse effects and a proponent is prepared to move to a commercial stage, the Department of Natural Resources may issue a call for commercial proposals for a long-term lease in a particular area. The applications/proposals shall be subject to entry into the One Window process, all regulatory approvals, the 30-day public comment period as well as Aboriginal and public consultation. Approval for demonstration at a site does not guarantee any rights to that site for commercial development.

### **Monitoring and Research**

Proponents must accept monitoring and research requirements of the provincial and federal governments such as:

- i. Conditions will be attached to Letters of Authority requiring monitoring of demonstration devices to be carried out during the demonstration phase;
- ii. The federal and provincial governments may supplement the developers' project level research and development with generic research to help answer important knowledge gaps; and
- iii. Financial support to developers may be considered where monitoring and research will provide generic knowledge (rather than project specific).

Precise monitoring conditions imposed on developers will vary between devices, projects, and sites.

A research program has been established to address particular questions of interest, carry out particular monitoring, and commission research projects. Input from developers, stakeholders and government has been necessary to design the research program. The Province's goal is to put as much of this information in the public domain, excluding confidential/proprietary information.

### **Decommissioning**

Prior to installation of any device, the Province must be satisfied that appropriate planning and financial security arrangements are in place to decommission marine energy devices if the project is suspended or terminated at any time or at the end of the device's working life.

The DNR Letter or Authority will include conditions that govern the early decommissioning of a device before the end of its working life in the event that it has unacceptable impacts on the environment and it is not possible to successfully modify it to adequately mitigate them.

### **Timing of Regulatory Process**

It is not possible to give a precise indication of the time it will take for a project to receive approval. Much depends on the completeness of the information supplied by the proponent. Timing depends on many factors including the choice of site, the nature of the device, the number of different impacts (related to site choice and type of device), and the potential significance of the impacts of the project.

A developer has the ability to influence the time taken to reach project approval as the time taken to reach a decision depends on the scope of their project.

The requirement for and scope of both the EA and consequent monitoring conditions will be proportionate to and adequate for the risks associated with potential adverse impacts of a project related to scale, duration, and location. This should help reduce the time it takes to complete the approvals process, which is likely to be shorter than for a commercial scale project.

## **Review of Guidelines**

Due to the evolving nature of this industry and the technologies involved, along with the Province's increasing knowledge and understanding of the impacts of these devices, these guidelines will be reviewed on a continuous basis. This review will not adversely affect demonstration projects that have already been approved.

Some of the issues to address in an annual review of the policy could include:

- i. Progress of the industry and adequacy of the policy described in this guidance for the needs of the industry;
- ii. Ensuring that the monitoring conditions attached to consents/Letters of Authority are appropriate. Monitoring conditions may be changed or added to as a result of the review; and
- iii. Data on impacts of devices.

## **Contact Information**

If you have any questions with respect to these guidelines, please contact the following persons:

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