

**SUBJECT: ALLOCATION OF CROWN LANDS FOR
TIDAL IN-STREAM ENERGY
CONVERSION PROJECTS**



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1.0 Policy Overview

1.1 Background New Brunswick has committed to increasing the amount of electricity from renewable sources by 1% per year from 2006 until 2016. Opportunities exist for tidal in-stream energy conversion (TISEC) projects to contribute to this renewable energy target.

TISEC technology converts the kinetic energy of marine currents into usable electric energy. TISEC projects:

- a) Are considered a clean and viable source of renewable electric energy; and
- b) Are more reliable and predictable than other renewable energy sources such as solar and wind.

Even though TISEC technology is in the early stages of development relative to other renewable energy sources, it has the potential to deliver significant environmental and economic benefits for New Brunswick. This is not only because of its advantages over other renewable energy sources, but also because of the strong tidal currents in the Bay of Fundy.

While it is important to capitalize on such potential, it is as critical to recognize the strategic importance of the Bay of Fundy Region to New Brunswick. It is a very dynamic and diverse environment with many attributes. Only to mention some:

- In 2007, the Bay of Fundy was designated as a Biosphere Reserve by the United Nations Education Science and Cultural Organization (UNESCO).
- The Bay of Fundy has a rich diversity of marine resources¹, including significant fisheries for herring, groundfish (cod, pollock, haddock), anadromous fish (salmon, gaspereau, alewife), invertebrates (lobster, scallop, crab, clams, urchin) and seaweeds (dulce, rockweed).
- Fundy tourism region visitation and tourism expenditures sustain a total of 799 tourism sector businesses (June 2008 Statistics Canada Business Register) and approximately 8,660 full-time equivalent employees (2006 Census).
- The Bay of Fundy has also become an important cruise ship destination. In 2009, a record of over 190,000 cruise ship passengers visited Saint John, which represents \$15 million to \$20 million in economic spin-offs for the Greater Saint John area.

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¹ New Brunswick's fishing and seafood processing industry is a significant contributor to the provincial economy and continues to be Canada's fourth largest seafood exporter. (<http://www.gnb.ca/9999/Publications/2008-2009-e.pdf>)

1.0 Policy Overview, Continued

1.2 Definitions

Array Field An arrangement of similar devices into a single group to provide a combined energy output. This refers to any number of electrical energy-producing marine current powered turbines and supporting infrastructure that are spaced over a large area and connected to the power grid via submarine transmission lines.

Department The New Brunswick Department of Natural Resources (DNR), unless otherwise specified.

Far-field Area That area where behavioural differences or environmental impacts are not readily measurable or observable.

Footprint The “footprint” of a TISEC device includes the immediate device base, foundations and service area around the base.

Kinetic Energy The mechanical energy that a body has by virtue of its motion.

Minister The Minister of Natural Resources, unless otherwise specified.

Near-field Area That area where either:

- a) Fauna (fish, mammals, birds, etc.) demonstrate behavioural differences in relation to the TISEC device, or
- b) Modification to the flora (algae, plants, etc.) or physical environment (within the parameters of the authorized TISEC project) is measurable or observable.

Proprietary Information Information relating to in-stream tidal equipment or device design.

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1.0 Policy Overview, Continued

1.2 Definitions (continued)

Resource High Activity Area

An area of submerged Crown lands where TISEC projects are subject to stricter siting standards. This area is identified in this policy and is characterized with high activities related to traditional resource sectors such as fisheries.

Siting Standards

The Standards for the placement of a structure or group of structures.

Tidal In-Stream Energy Conversion (TISEC)

TISEC technology converts the kinetic energy of marine currents into electric energy. TISEC is a clean, environmentally friendly and viable source of renewable energy that offers the advantages of reliability and predictability over other renewable energy sources such as solar and wind.

TISEC Device

A TISEC device or turbine consists of a rotor (blades or foils), an electric generator (nacelle) and

- a) May be bottom-mounted and anchor-tethered (buoyant) to be secured in place;
 - b) May or may not have a surface-piercing structure;
 - c) May have ducted or non-ducted blades or foils designed to rotate about either the vertical or horizontal axes; and
 - d) May have a modular design or a design approach that uses an oscillating hydrofoil or any other design on the market.
-

Transmitter

A person who owns or operates a transmission system, unless otherwise defined in the *Electricity Act*.

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1.0 Policy Overview, Continued

1.3 Policy Purpose

The purpose of this Policy is to establish an administrative framework for the development of Tidal Power on Crown lands by:

- a) Providing a controlled, incremental development approach for issuing dispositions for TISEC projects;
 - b) Providing fairness, consistency, and consideration of the needs of community sectors that depend on secure access to submerged Crown lands and resources;
 - c) Providing the industry stakeholders with an opportunity to understand the risks and benefits from TISEC technologies;
 - d) Striking a balance between
 - i) having a stable and consistent policy regime, and
 - ii) being responsive to the evolving needs of private and public interests; and
 - e) Providing guidance to the TISEC industry on the process for the allocation of Crown lands for TISEC technologies and development.
-

1.4 Policy Statements

It is the policy of DNR to facilitate and allow activities associated with TISEC exploration and commercial projects while adopting an incremental development approach and ensuring consultation with local communities.

It is the policy of DNR that water-dependent structures, works, or activities associated with TISEC projects that are consistent with this Policy may be permitted on submerged Crown lands with prior authorization from the Department.

It is the policy of DNR that water-dependent structures, works, or activities associated with TISEC projects that are temporary in nature and that are permitted under, and meet the requirements of DNR *Submerged Land Policy* without prior authorization, be permitted under the current Policy.

It is the policy of DNR that applications to use Crown lands for TISEC projects will not be considered, if they:

- a) Present a known threat to public safety, health or the environment;
 - b) Encroach on tenure commitments;
 - c) Significantly displace traditional resource users; or
 - d) Will result in adverse effects beyond the boundaries of the actual disposition.
-

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1.0 Policy Overview, Continued

1.5 Policy Objectives

The objectives of this Policy are to:

- a) Manage the use of submerged Crown lands for TISEC projects while ensuring compatibility with:
 - i) the *Crown Land Management Principles*,
 - ii) the *Submerged Land Policy*,
 - iii) the *Departmental Consultation With First Nation Communities* policy and any superseding overarching aboriginal consultation policy approved by the Aboriginal Affairs Secretariat (AAS),
 - iv) *A Coastal Areas Protection Policy for New Brunswick*, and
 - v) existing commitments;
- b) Provide guidance to staff for the review and authorizations of TISEC applications on Crown lands administered by DNR;
- c) Identify general terms and conditions under which TISEC project exploration, research, construction, operation, maintenance, and decommissioning take place;
- d) Ensure that siting standards, and other requirements are proportional to risk factors that impact existing resources, uses and users;
- e) Ensure that the TISEC decision-making process includes a public consultation component;
- f) Ensure that TISEC projects provide regional benefits and are undertaken after consultation with local communities;
- g) Provide the opportunity for multiple proponents to conduct concurrent TISEC projects;
- h) Ensure that the type and duration of dispositions be proportional to, and reflective of the investment at the different stages of TISEC projects; and
- i) Ensure that the area of land allocated for a TISEC project correspond to, and not exceed the needs of the project stage in order to prevent speculation and avoid the unnecessary exclusion of other potential users of submerged Crown lands.

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1.0 Policy Overview, Continued

1.6 Policy Scope This Policy replaces the *Interim Policy on Allocation of Crown Lands for Research in Support of In-Stream Tidal Power Generation*.

This Policy applies to those portions of the Bay of Fundy, the Northumberland Strait, the Gulf of St. Lawrence, and the Bay of Chaleur that are under the administration and control of the Minister.

This Policy applies to the tenure of Crown lands for:

- a) New and renewed licences of occupation;
- b) New and renewed leases and associated approvals; and
- c) Easements.

This Policy does not deal with:

- a) The development of wave energy projects;
- b) The development of offshore wind energy projects; or
- c) Applications involving small individual TISEC installations for personal residential use.

1.7 Authority The provisions of this Policy are supported by the authority given through sections 4 and 23 through 26 of the *Crown Lands and Forests Act*, together with the provisions of the *Land Administration Regulation* (Regulation 2009-62) under the *Crown Lands and Forests Act*.

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1.0 Policy Overview, Continued

1.8 Staged Approach (Project Stages)

This Policy guides the allocation of Crown lands for TISEC research and commercial project development. In keeping with the incremental development approach adopted by this Policy, TISEC projects for land under the administration and control of the Minister must proceed in sequential stages in the order shown in Table 1.

Table 1: Description of Project Stages

Stage	Stage Name	Description and Purpose						
1	The Pre-deployment	<ul style="list-style-type: none"> • does not involve the deployment of any TISEC devices, and • consists of two main steps: <table border="1" data-bbox="841 751 1383 1129"> <thead> <tr> <th>Step</th> <th>includes data collection and analysis</th> </tr> </thead> <tbody> <tr> <td>The Siting Exploration</td> <td>to help the proponent determine the siting feasibility of the project</td> </tr> <tr> <td>The Baseline Research</td> <td>to establish a baseline data determination that will be crucial for ecological impact analysis purposes</td> </tr> </tbody> </table> 	Step	includes data collection and analysis	The Siting Exploration	to help the proponent determine the siting feasibility of the project	The Baseline Research	to establish a baseline data determination that will be crucial for ecological impact analysis purposes
Step	includes data collection and analysis							
The Siting Exploration	to help the proponent determine the siting feasibility of the project							
The Baseline Research	to establish a baseline data determination that will be crucial for ecological impact analysis purposes							
2	The Experimental stage (Pilot Project stage)	<ul style="list-style-type: none"> • consists of the deployment of a single device, and • tests the project feasibility and its potential and actual effects 						
3	The Partial or Entire Deployment stage	is the stage or stages where multiple devices are deployed for extended duration for TISEC commercial purposes						

The allocation of Crown lands for each of the three TISEC project stages is granted through a separate disposition(s) as described in Section 6 of this Policy.

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1.0 Policy Overview, Continued

1.9 Overview of the Application Process

An application for a particular stage of a TISEC project will be evaluated against general requirements and requirements specific to the stage. In general terms, these include administrative, technical and operational requirements. Proponents will also be required to demonstrate the regional benefits of their proposals; to comply with all applicable federal and provincial legislation; and to conduct public consultation. DNR will determine the priority of application, if more than one application is received within a specified timeframe. In these cases, competing applicants may have to submit additional proposals as described in Section 3.3.1.

At each stage of the TISEC project, the proponent must meet the requirements shown in Table 2.

Table 2: Requirements per Stage

Requirements	When	Examples	Section of the Policy
Application Requirements	Before a disposition is issued	<ul style="list-style-type: none"> • Application fee • Site Development Plan 	2
Pre-authorization Requirements	When a conditional offer is issued and prior to the issuance of a disposition or the beginning of any site activity or construction	<ul style="list-style-type: none"> • Issuance and rental fees • Authorizations from other agencies • Insurance 	4
Operational Requirements and Obligations of the Holder of a Disposition (Tenure Maintenance Requirements)	Once operating	<ul style="list-style-type: none"> • Rents • Siting standards 	5

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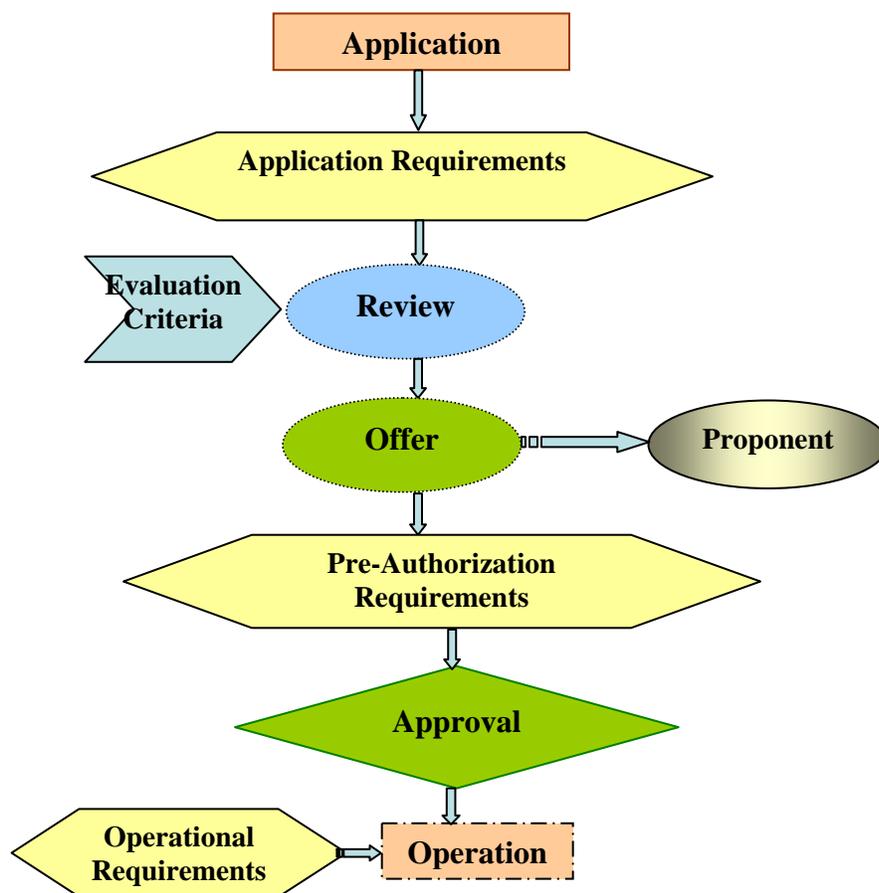
1.0 Policy Overview, Continued

1.9 Overview of the Application Process (continued)

An application for a subsequent stage can be submitted to DNR for review before the expiry of the term of the previous stage(s). However, DNR will decide on or approve such an application only if satisfied with the proponent's performance and compliance and the project progress and results. (Section 3.3.3)

Flowchart 1 illustrates the application process.

Flowchart 1: Application Process



2.0 Application Requirements

2.1 General

Every applicant must submit the information necessary to allow the proposal to be assessed against the requirements of the Policy.

DNR may require additional information about a proposal, prior to rendering any decision on issuing a disposition.

The Application Requirements outlined in Section 2.0 are the main criteria on which application evaluation, decision-making and issuance of a disposition will be founded.

Before submitting an application to use a particular site, TISEC proponents are strongly encouraged to undertake discussion with relevant resource users who could be potentially affected by the proposed site(s). TISEC proponents are encouraged to provide the results of such early consultation and how it affected the proposed site selection.

2.2 Application Admissibility (Administrative Requirements)

The application admissibility requirements include the following:

- a) Who can apply;
 - b) Basic eligibility; and
 - c) Application Fees.
-

2.2.1 Who Can Apply

Applications will only be received/considered if they are received from the following:

- a) Private sector companies or individuals;
 - b) Universities, community colleges or other educational institutions for research purposes whether in the form of in-house expertise or through partnerships or contracts with other research organizations;
 - c) TISEC industry associations;
 - d) Non-profit organizations and registered charities as defined in the *Income Tax Act*;
 - e) Municipal governments, provincial, or federal departments, Crown corporations or agencies; and
 - f) Any combination or partnership of the above.
-

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2.0 Application Requirements, Continued

2.2.2 Basic Eligibility

Applications for Crown lands will be considered only if the TISEC applicants:

- a) Are at least 19 years of age;
 - b) Are legal entities or a business registered with Corporate Registry of Service New Brunswick; and
 - c) Provide a copy of their Certificate of Incorporation to DNR.
-

2.2.3 Application Fees

Application fees apply to undertake research or develop projects. The application fees are established in the *Land Administration Regulation* (Regulation 2009-62) under the *Crown Lands and Forests Act*.

2.3 Demonstration of Regional Benefits

Applications must describe how the TISEC project would benefit the local communities, especially with respect to:

- a) How local and New Brunswick researchers or institutions; suppliers and labour will be utilized
- b) The contracting of local and New Brunswick businesses;
- c) How the development of TISEC knowledge base and expertise will be advanced; and
- d) Specific set-asides for aboriginal people through employment, procurement, or other arrangements, where aboriginal communities may be impacted by a project.

The information required shall include, but is not limited to, the name of the researchers, institutions, suppliers, businesses hired or contracted and the amounts spent in local communities and in New Brunswick.

2.4 Research and Project Expertise

Applicants must demonstrate in-house, partnership, collaborative, or contracted research expertise or capacity including, but not limited to, the:

- a) Company profile;
 - b) Employee or consultant profile;
 - c) Research competence and experience; and
 - d) Relevant project experience.
-

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2.0 Application Requirements, Continued

2.5 Business Plan / Power Purchase Agreement

The applicant must provide a business plan that:

- a) Summarizes the operational and financial objectives of the project;
- b) Contains cost estimates, plans and budgets;
- c) Indicates the project funding requirements over time; and
- d) Identifies the estimated value of research investment attributable to scientific research (not including the costs of the proponent's device design or manufacture) anticipated to carry out the project.

Applicants are not required to provide a business plan:

- a) For a Pre-deployment stage application, but they are not exempt from identifying the research investment anticipated to carry out the project; and
- b) For an application in the subsequent stages, if they provide proof they have an Open Access Transmission Tariff (OATT) or a Power Purchase Agreement (PPA) from NB Power.

The applicant must demonstrate that an updated system impact study has been provided to the New Brunswick System Operator (NBSO), if required by it, respecting the project.

2.6 Site Development Plan (SDP)

The applicant must submit to DNR, for approval, a description of the proposed activities as part of a SDP. The approved SDP will form part of the disposition document.

The SDP shall contain the following components:

- a) Site location map and plan (Section 2.6.1);
 - b) Documentation of constraints (Section 2.6.2);
 - c) Project description (Section 2.6.3);
 - d) Other requirements (Section 2.6.4); and
 - e) Decommissioning and rehabilitation plan (Section 2.6.5).
-

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2.0 Application Requirements, Continued

2.6 Site Development Plan (SDP) (continued)

The SDP must be amended and re-approved by DNR if:

- a) The tenured area is modified;
- b) TISEC devices are relocated to sites not specified in the original SDP;
- c) Works, other than those approved in the original SDP, are proposed to be undertaken on the site; or
- d) The work does not proceed as proposed.

The information provided in the SDP must take into account the three dimensions of the tenured land (L+W+H), the water column and the substrate.

2.6.1 Site Location Map and Plan

For all TISEC project applications TISEC site locations proposed for land tenure shall be identified by GPS coordinates on a map, chart or aerial photograph.

Except for an application for the Pre-deployment stage, all TISEC project applications must be accompanied by a map, sent in electronic format, showing:

- a) Boundaries, horizontal and vertical dimensions, size and views of the proposed TISEC project tenured area; and
 - b) Proposed access points, including any distribution and transmission lines, to the proposed TISEC project site.
-

2.6.2 Documentation of Constraints

All TISEC project applications must also identify, using maps and documentation:

- a) The bathymetry, site location referencing GPS coordinates;
 - b) All existing and anticipated activities and resource uses and users:
 - i) located within or near the proposed TISEC project tenured land, or
 - ii) that could potentially be impacted by the TISEC project;
 - c) The location of any existing infrastructure and development within one (1) kilometre of the proposed TISEC project tenured land;
 - d) The location of any proposed public safety buoys as directed by the Navigable Waters Protection Program;
 - e) The location of any designated recommended seasonal Area to be Avoided (ATBA) as established by Transport Canada (TC);
-

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2.0 Application Requirements, Continued

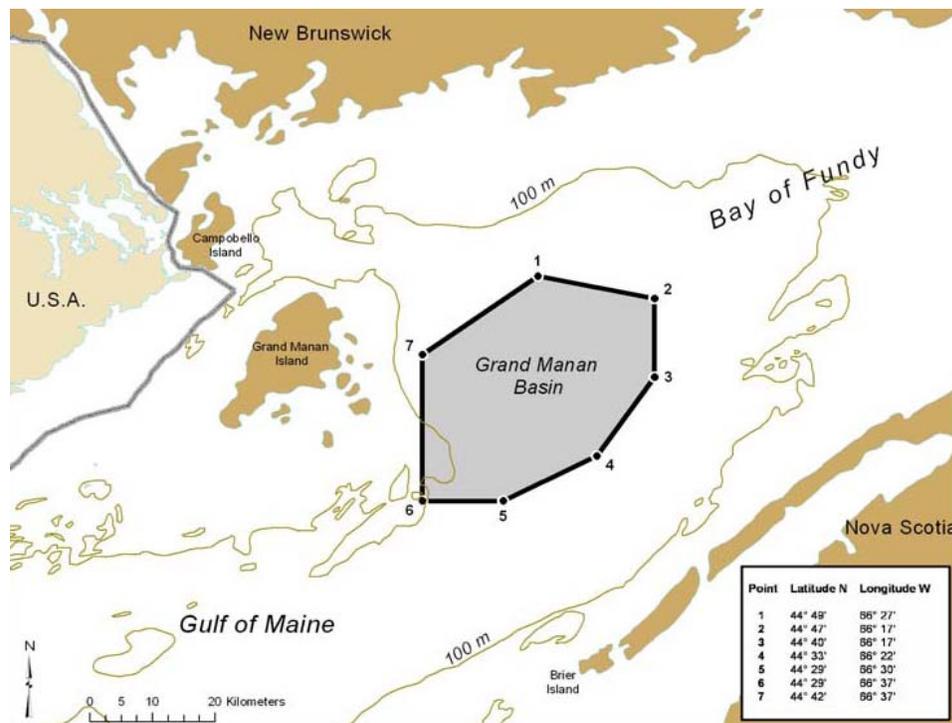
2.6.2 Documentation of Constraints (continued)

- f) The location of the following conservation areas and critical habitats and their distance from the TISEC project:
- i) North Atlantic Right Whale Species At Risk Act (SARA) Critical Habitat for Grand Manan Basin, Bay of Fundy (coordinates are provided in Table 3), and

Table 3: Coordinates of North Atlantic right whale SARA Critical Habitat for Grand Manan Basin.

Point	Latitude	Longitude
1	44° 49'N	66° 27'W
2	44° 47'N	66° 17'W
3	44° 40'N	66° 17'W
4	44° 33'N	66° 22'W
5	44° 29'N	66° 30'W
6	44° 29'N	66° 37'W
7	44° 42'N	66° 37'W

Map 1: Boundary of North Atlantic right whale SARA Critical Habitat for Grand Manan Basin. (Provided by Oceans and Coastal Management Division, DFO)



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2.0 Application Requirements, Continued

2.6.2 Documentation of Constraints (continued)

- ii) any other nearby Right Whale Conservation Area or SARA Critical Habitat;
 - g) The location of Marine Protected Areas designated under the *Oceans Act*;
 - h) The location of designated National Wildlife Areas, as established by Environment Canada (EC);
 - i) The location of Migratory Bird Sanctuaries as established by EC;
 - j) The Marine Wildlife Areas as established by EC; and
 - k) The location of National Marine Conservation Areas as established by Parks Canada.
-

2.6.3 Project Description

The applicant must submit a project description. It must contain the following, for both proposed and anticipated (subsequent/future) project stages:

- a) A project summary describing all activities associated with the TISEC project, including the upland activities, if applicable, as in Section 2.6.4; and
- b) A timeline of the proposed project activities, including construction, operation and maintenance schedules, as applicable.

The activities must be in accordance with the Siting Standards described in Section 5.0.

An application in the Experimental and Deployment stages shall also include

- a) A map showing the following:
 - i) location of the proposed TISEC project device(s),
 - ii) location of the proposed structures and infrastructure, including distribution and transmission lines, with dimensions,
 - iii) location of monitoring devices and equipment, and
 - iv) limits of the proposed final full-scale TISEC project;
 - b) TISEC device manufacturer's specifications including:
 - i) plans, photos and dimensions of devices, bases and anchors,
 - ii) blade diameter,
 - iii) rotor clearance, and
 - iv) manufacturer's nameplate rated output capacity; and
 - c) Construction and deployment details for all planned infrastructure, such as, but not limited to, excavations and construction materials used.
-

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2.0 Application Requirements, Continued

2.6.4 Other Requirements

Applicants shall provide

- a) A detailed plan of any upland activity related to the proposed TISEC project;
 - b) Written consent for that activity from the upland owner;
 - c) Proof that they have a Power Purchase Agreement (PPA) from the electrical utility; if applicable, and
 - d) Proof that they have an interconnection agreement to the existing transmission/distribution system, if applicable.
-

2.6.5 Decommissioning and Rehabilitation Plan

Except for a Pre-deployment stage, applicants shall provide a decommissioning and rehabilitation plan:

- a) For any land disturbed as a result of construction or operation; and
- b) For implementation upon expiry of the disposition, or decommissioning of any infrastructure.

Decommissioning includes the removal of cables, anchors and any debris left on the site. It may also involve requirements imposed by other agencies such as Transport Canada (TC) and Department of Fisheries and Oceans (DFO).

The rehabilitation must include all lands disturbed as a result of construction, operation, testing or any other activities.

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2.0 Application Requirements, Continued

2.7 Confirmation of Whether Approvals are Required

If applicable, all TISEC project applications must include a copy of the correspondence and a list of approvals required from, but not limited to:

- a) The federal departments or agencies listed in Table 4; and

Table 4: Federal Departments or Agencies

Department or Agency	Under or regarding
Fisheries and Oceans Canada (DFO)	<ul style="list-style-type: none"> • the <i>Fisheries Act</i>, • the <i>Oceans Act</i>, and • the <i>Species at Risk Act</i>
Parks Canada	<ul style="list-style-type: none"> • the <i>Species at Risk Act</i>
Canadian Wildlife Service	<ul style="list-style-type: none"> • the <i>Species at Risk Act</i>, and • the <i>Migratory Birds Convention Act</i>
Transport Canada (TC)	<ul style="list-style-type: none"> • the <i>Navigable Waters Protection Act</i>, • the <i>Navigable Waters Works Regulations</i>, and • designated recommended seasonal ATBA
Applicable federal organization**	<ul style="list-style-type: none"> • the <i>Canadian Environmental Assessment Act</i>
Canadian Coast Guard	
Atlantic Pilotage Authority	<ul style="list-style-type: none"> • the <i>Pilotage Act</i>
National Defense Canada (DND)	<ul style="list-style-type: none"> • potential impacts on submarine sonar systems
National Energy Board	<ul style="list-style-type: none"> • the <i>National Energy Board Act</i>

** The Canadian Environmental Assessment Agency administers the federal environmental assessment process under the *Canadian Environmental Assessment Act*. The Agency can facilitate contact and coordination with the above federal organizations where the requirements of the *Canadian Environmental Assessment Act* apply to TISEC projects.

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2.0 Application Requirements, Continued

2.7 Confirmation of Whether Approvals are Required
(continued)

b) The provincial departments listed in Table 5.

Table 5: Provincial Departments or Agencies

Department or Agency	Under or regarding
Department of Environment (DENV)	<ul style="list-style-type: none">• the <i>Environmental Impact Assessment Regulation – Clean Environment Act</i>,• the <i>Community Planning Act</i>, and• the <i>New Brunswick Coastal Protected Areas Policy</i>
Department of Agriculture, Aquaculture and Fisheries (DAAF)	<ul style="list-style-type: none">• the administration of marine aquaculture
Department of Natural Resources (DNR)	<ul style="list-style-type: none">• the <i>Quarriable Substances Act</i>, and• the <i>Endangered Species Act</i>
Department of Transportation and Infrastructure	<ul style="list-style-type: none">• the <i>Highway Act</i>

2.8 Notification and Consultation Proposal

Applicants must submit in their application a public and First Nation communities' consultation proposal, to assist in decision-making on the issuance of a disposition.

The proposal must be in accordance with Section 4.2 of this Policy and shall include details as to how the applicants intend to proceed with the notification and consultation.

The consultation proposal of the current stage application must build upon any consultations that may have been undertaken from the previous stages, if any, and demonstrate how the consultation process will be improved.

3.0 Application Evaluation and Decision-Making Process

3.1 Application Evaluation

The management of submerged Crown lands is complex. Submerged Crown lands are shared among many resource users.

Applications submitted to DNR will be evaluated to ensure all requirements are met. As part of this process, it will be necessary to conduct an inter-agency review of proposals for TISEC project development. This review could include both federal and provincial regulatory agencies that share jurisdiction over New Brunswick marine environment who will review the proposals from their mandates' perspective. DNR may also call upon non-governmental agencies for input as part of the application evaluation process.

3.2 Evaluation Criteria

An application for a particular stage of a TISEC project will be evaluated and examined against the following criteria:

- a) The Application Requirements (Section 2.0); and
 - b) The Particular Evaluation Criteria (Section 3.3).
-

3.3 Particular Evaluation Criteria

In addition to the Application Requirements indicated in Section 2.0, applications could be subject to the following particular criteria, if applicable:

- a) The Application and Allocation Criteria (Section 3.3.1); and
 - b) The Particular for a Subsequent Stage (Section 3.3.2).
-

3.3.1 *Application and Allocation Priority Criteria for TISEC Projects*

Applications for the tenure of Crown lands for TISEC projects shall be considered on a first come, first served basis, unless the Minister exercises his/her discretion to call for proposals under subsection 23(2) or 26(1.1) of the *Crown Lands and Forests Act*.

Where a TISEC proponent has an active disposition, DNR will not accept other TISEC applications overlapping the same land or issue a competing disposition for the use of the same land without the consent of the holder of the disposition.

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3.0 Application Evaluation and Decision-Making Process,

Continued

3.3.1 *Application and Allocation Priority Criteria for TISEC Projects* (continued)

However, where

- a) No active disposition exists for TISEC purposes, and
- b) Two or more TISEC applications are received
 - i) for the same parcel of Crown lands, location (either physically or within the technical constraints of this Policy), and
 - ii) within seven (7) calendar days of the receipt of each other,

they will be compared against the following criteria:

- a) Meeting or exceeding the requirements and intent of this Policy;
- b) Greatest socio-economic benefit; and
- c) Least ecological impact.

The applicant that best meets the criteria may be allocated the disposition. Nevertheless, DNR may choose to require that the competing applicants submit an additional proposal before a final decision or allocation is made.

3.3.2 *Application Criteria for a Subsequent Stage*

Proponents who are granted a disposition for the Pre-deployment stage may submit an application for the Experimental stage to DNR for review, prior to the completion of the Pre-deployment stage. Similarly, proponents granted a disposition for the Pre-deployment stage or the Experimental stage may submit an application for a Deployment stage to DNR for review, prior to the completion of the previous stage(s).

However, a decision or approval may only be given when:

- a) The proposal meets the applicable Evaluation Criteria (Section 3.2);
- b) DNR is satisfied with the proponent's performance and good standing as well as project progress and results of the previous stages; and
- c) The proponents meet the Operational Requirements and Obligations of the Holder of a Disposition (Tenure Maintenance Requirements) (Section 5.0) of the previous stage.

Projects will not be approved if they are unacceptable or unsuitable (e.g., during monitoring) with respect to:

- a) environmental issues,
 - b) public health and safety,
 - c) significant conflict with existing, or anticipated traditional uses; or
 - d) conflict with oil and natural gas leases or licenses.
-

4.0 Pre-Authorization Requirements

4.1 General

Before DNR issues a disposition, proponents will be required to meet the Pre-authorization Requirements outlined in this Section.

4.2 Public and First Nation Communities' Notification and Consultation

TISEC proposals may potentially affect various Crown lands resources, activities and users. It is therefore important to consult the public, First Nation communities and the local communities before the issuance of any disposition.

Proponents shall consult with the public and First Nation communities with respect to the TISEC project proposal. The notification and consultation activities must include the following:

- a) Public notifications, approved by DNR, in local and provincial papers that serve the area in which the TISEC project is proposed;
- b) Sending a notification letter as shown in Table 6; and

Table 6: Groups/Bodies to Whom Notification Letters Must be Sent

Notification letter must be sent to	Groups/bodies identified by
groups/stakeholders	DNR as existing resource users of Crown lands near the proposed TISEC project site
fisheries and aquaculture organizations	DAAF
community environmental non-governmental organizations	DENV
municipalities and LSD's	Department of Local Government
First Nations communities	Aboriginal Affairs Secretariat (AAS)
tourism operators and marine stakeholders within the affected communities	Department of Tourism and Parks
other stakeholders	DNR

- c) Conducting at least two (2) public consultation sessions in adjacent communities approved by DNR.

Continued on next page

4.0 Pre-Authorization Requirements, Continued

4.2 Public and First Nation Communities' Notification and Consultation (continued)

The notifications and letters shall:

- a) Describe the proposed use;
- b) Show the location of the proposed TISEC project; including distribution and transmission lines, if applicable;
- c) Illustrate the scale and dimensions of the proposed TISEC project;
- d) Indicate contact coordinates for comments and inquiries;
- e) Indicate that the names of individuals who have concerns with the proposal will be kept confidential;
- f) Indicate that DNR may publicly share the concerns that were identified; and
- g) Identify a deadline at least 30 days from the notification date for submitting comments.

Notification and consultation are required at each stage of TISEC development.

The proponent must notify AAS and Indian and Northern Affairs Canada (INAC) of any planned consultation process with aboriginal groups arising from TISEC projects and must send to DNR a confirmation to this effect.

The proponent shall provide DNR with a consultation report on all consultations undertaken, including: who was consulted, by what method, what issues were raised and how they were addressed.

In the Pre-deployment and Experimental stages, public consultation will not be required for disposition renewals and the maintenance or repair of authorized structures or devices.

4.3 Authorizations from Other Agencies

Proponents shall be responsible for obtaining all necessary permits, licences, consents, authorizations or exemptions from other agencies. A copy may be requested by DNR before the issuance of a disposition.

Continued on next page

4.0 Pre-Authorization Requirements, Continued

4.4 Environmental Impact Assessment (EIA) and Environmental Assessment (EA) Approvals

Should a TISEC project require registration under the EIA Regulation, DNR may not proceed with a disposition until:

- a) A Certificate of Determination is issued by the Minister of Environment under the EIA Regulation; or
- b) The Lieutenant-Governor in Council gives approval under the EIA Regulation for the undertaking following the completion of a required EIA.

If the Lieutenant-Governor in Council refuses to approve the undertaking, DNR will reject the TISEC project application.

If a TISEC project has triggered a federal EA process, DNR may not issue a disposition until a decision has been made by the responsible federal authority.

4.5 Authorizations for Upland Activities

If the TISEC project involves an upland activity, proponents must obtain written consent from the land owner. They must also obtain, from relevant municipal, provincial and federal agencies, the applicable approvals required for any upland activities.

4.6 Survey Requirements

Before a disposition, other than a licence of occupation, is issued, proponents shall be responsible for having the subject land surveyed.

The land tenured area must be identified at its boundaries with buoys installed in accordance with Transport Canada requirements.

A survey will be required

- a) For all new TISEC projects;
 - b) For any addition or a withdrawal of land from the disposition; and
 - c) For all renewals, if the boundaries of the TISEC project (e.g. buoy location) have been changed, are no longer visible, or are unclear.
-

4.7 Issuance and Rental Fees

Before a disposition is issued for a TISEC project, proponents are required to pay the issuance and rental fees established in the *Land Administration Regulation* (Regulation 2009-62) under the *Crown Lands and Forests Act*.

Continued on next page

4.0 Pre-Authorization Requirements, Continued

4.8 Insurance Before a disposition is issued for a TISEC project, proponents shall

- a) Obtain Third Party Liability Insurance according to Table 7;

Table 7: Minimum Amounts of Third Party Liability Insurance per Stage

Minimum Amount of the Insurance per incident	for the following stage
\$2,000,000	Pre-deployment
\$5,000,000	Experimental
\$10,000,000	Deployment

- b) Name as an additional insured “Her Majesty the Queen in Right of the Province of New Brunswick”; and
- c) Provide a copy of the policy (certificate of insurance) to DNR.

Proponents must continue to carry for the duration of the term the Third Party Liability Insurance and provide a copy of the certificate of insurance to DNR upon request.

4.9 Financial Security

Before a disposition is issued for any TISEC project stage, proponents shall provide financial security, in accordance with Table 8, in the form of an irrevocable letter of credit from a Canadian Chartered Bank.

Table 8: Amount of Financial Security per Stage

Amount of the financial security	for the following stage
\$200,000 / area up to 50 ha	Pre-deployment
\$500,000 / area up to 5 ha	Experimental
\$1,000,000 / area up to 25 ha	Deployment

This financial security is to cover costs associated with such things as emergency recovery, environmental restoration, or decommissioning. It will only be used if issues cannot be resolved with the proponent in a timely and appropriate manner.

When the site has been decommissioned and rehabilitated to the satisfaction of the Minister, any remaining funds will be returned to the holder of the disposition.

Continued on next page

4.0 Pre-Authorization Requirements, Continued

4.10 Other Requirements

DNR may deem it necessary for the proponents to meet other requirements that may or may not result from (be based on) recommendations received from other stakeholders.

5.0 Operational Requirements and Obligations of the Holder of a Disposition (Tenure Maintenance Requirements)

5.1 General Proponents shall meet the Operational Requirements contained in this Section prior to project start-up.

5.2 Activity Requirements Once TISEC Baseline Research has been completed and reviewed and a disposition for the TISEC Experimental stage has been issued, construction of TISEC Pilot Project components may begin in accordance with the approved SDP.

Once the TISEC Pilot Project stage has been completed and reviewed and a disposition for TISEC Deployment stage has been issued, construction of the TISEC array field and related facilities may begin in accordance with the approved SDP (Section 2.6).

Proponents shall commence site activities related to each stage as prescribed in the SDP within the timeframe specified in Table 9.

Table 9: Activity Timeframe

Proponents must commence site activities related to (Stage or step) as prescribed in the SDP	within	From the issuance, extension or renewal of the disposition for
Siting Exploration step	6 months	the Pre-deployment stage
Baseline Research Step	1.5 years	the Pre-deployment stage
Experimental stage	6 months	the Experimental stage
any Deployment stage	1 year	the Deployment stage

At the Minister's discretion, the time period for the initial site activities to occur may be extended, if the proponent demonstrates that the request is reasonable and they have been making best efforts to conduct the planned activities.

5.3 Rents Proponents who are successful in obtaining a disposition for a TISEC project Pre-deployment, Experimental or Deployment stage shall pay the annual rental fee established in the *Land Administration Regulation* (Regulation 2009-62) under the *Crown Lands and Forests Act*.

Continued on next page

5.0 Operational Requirements and Obligations of the Holder of a Disposition (Tenure Maintenance Requirements), Continued

5.4 Authorized and Unauthorized Activities and Components

This section lists the authorized and the unauthorized activities and components for the three stages of TISEC projects.

5.4.1 Authorized Activities and Components

Unless otherwise authorized by DNR, activities that may be undertaken in the Pre-deployment stage of TISEC projects are limited to:

- a) Monitoring activities, data collection and analysis:
 - i) on water currents, flows, motions, forces and strengths;
 - ii) on climatic conditions such as air and water temperatures, weather conditions and storm influences;
 - iii) on historical and cultural resources; and
 - iv) on recreational resources;
- b) Monitoring activities and collection of baseline information:
 - i) on the natural environment such as bedrock and ocean floor geology, sediment transfer, and erosion activity; and
 - ii) on flora and fauna.

Authorized activities and components for the Experimental and Deployment stages of TISEC projects include (in addition to those stated above):

- a) In the case of the Experimental stage: single TISEC device deployment, operation, maintenance, recovery and re-deployment;
- b) In the case of a Deployment stage: multiple, staged or incremental TISEC device deployment, operation, maintenance, recovery and re-deployment as approved by the Minister;
- c) Dredging, infilling, mooring, anchoring associated with the device installation and deployment;
- d) The installation of substations; and
- e) The installation of distribution lines between the devices or between the devices and a substation.

Other activities, consistent with the intent and spirit of this Policy and are similar and compatible with permitted activities may also be allowed.

Continued on next page

5.0 Operational Requirements and Obligations of the Holder of a Disposition (Tenure Maintenance Requirements), Continued

5.4.2 *Unauthorized Activities and Components*

The following activities are not authorized:

- a) In the Pre-deployment stage:
 - i) the connection to power grids, or
 - ii) the deployment of any TISEC device; and
 - b) In the Experimental stage, the deployment of more than one TISEC device.
-

5.5 Siting Standards

The Policy sets out siting standards and other constraints to ensure that the site selection process is properly managed. There are two categories of siting standards:

- a) General siting standards (Section 5.5.1); and
- b) Resource high activity area siting standards (Section 5.5.2).

TISEC projects and related devices/facilities on Crown lands are subject to the siting standards above.

5.5.1 General Siting Standards

Any TISEC site shall

- a) Be no larger than:
 - i) 50 hectares in surface area for the Pre-deployment stage,
 - ii) 5 hectares for the Experimental stage, and
 - iii) 25 hectares for the Deployment stages;
 - b) Have a minimum width or length of no less than 250 metres;
 - c) Be located at a minimum of 500 metres away from any other TISEC site, unless both projects are in a pre-deployment stage;
 - d) Be located at a minimum 100 metres away from:
 - i) operating aquaculture sites,
 - ii) operating commercial or industrial sites as defined in the *Land Administration Regulation* (Regulation 2009-62) under the *Crown Lands and Forests Act*,
 - iii) designated navigation channels and shipping lanes,
 - iv) submarine cables and pipelines,
 - v) wharfs,
 - vi) designated Species at Risk habitat,
 - vii) Marine Protected Areas designated under the *Oceans Act*;
 - viii) designated National Wildlife Areas, as established by EC;
 - ix) Migratory Bird Sanctuaries as established by EC;
-

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5.0 Operational Requirements and Obligations of the Holder of a Disposition (Tenure Maintenance Requirements), Continued

5.5.1 General Siting Standards (continued)

- x) Marine Wildlife Areas as established by EC; and
 - xi) National Marine Conservation Areas as established by Parks Canada; and
 - xii) provincial and international boundaries;
 - e) Not obstruct, impede or render more difficult or dangerous the navigation of navigable waters under the *Navigable Waters Protection Act*;
 - f) Not encroach into a Right Whale Conservation Zone established by DFO;
 - g) Not encroach into a designated recommended seasonal ATBA adopted by TC;
 - h) Avoid:
 - i) operational submerged dumping sites,
 - ii) existing Crown lands leases, easements and rights-of-way,
 - iii) wrecks and other sites of archaeological merit, and
 - iv) weirs and weir sites; and
 - i) Avoid adverse effects on species at risk or species of concern and their designated critical habitats.
-

5.5.2 Resource High Activity Area Siting Standards

Some coastal and marine areas see resource high activity. To prevent a significant displacement of traditional resource users, resource high activity areas will be subject to stricter standards.

The “Resource High Activity Area” identified for the purpose of this Policy includes all territory in the Bay of Fundy lying west of longitude 66°27'34.81" as shown on Map 2 in Appendix A.

In addition to the General Siting Standards outlined in Section 5.5.1, site locations proposed for TISEC projects dispositions in a Resource High Activity Area shall:

- a) Be no larger than:
 - i) 25 hectares in surface area for the Pre-deployment stage,
 - ii) 3 hectares for the Experimental stage, and
 - iii) 20 hectares for the Deployment stage(s);
-

Continued on next page

5.0 Operational Requirements and Obligations of the Holder of a Disposition (Tenure Maintenance Requirements), Continued

5.5.2 Resource High Activity Area Siting Standards (Continued)

- b) Be located at a minimum 150 metres away from Species at Risk designated habitat; and
 - c) Not exceed a maximum output capacity of 7.5 Megawatts per project; and
 - d) Not create a TISEC project density that exceeds ten (10) TISEC devices per one thousand hectares (10 square kilometres). (Please see Appendix B for interpretation)
-

5.6 Conformity to Regulations

Proponents must comply with all relevant federal and provincial legislation and meet any applicable terms and conditions of approval issued by other agencies.

5.7 Operation Cessation and Equipment Removal

Proponents must cease the operation of, or remove if necessary, any equipment, machinery, devices or improvements in the case of an emergency situation, such as equipment failure, drifting, a threat to public safety or the environment.

6.0 Land Tenure and Rights

6.1 Tenure for Staged Incremental Development

Rights over Crown lands for TISEC projects will be granted through a multi-stage, integrated process as set out in Table 10.

Table 10: Disposition Types & Purpose

Disposition	Purpose
DNR grants to prospective TISEC proponents	to secure the right to use Crown lands for
A licence of occupation (non-exclusive use)	project Siting Exploration and Baseline Research steps in the Pre-deployment stage, for a limited term.
A lease (exclusive use), and possibly a licence of occupation	a TISEC Pilot Project (Experimental stage), in the following manner: <ul style="list-style-type: none"> • A single lease (exclusive use) will be issued for TISEC Pilot Project, and • An associated licence of occupation (non-exclusive use) will be issued to authorize distribution lines leading to the substation.
A lease (exclusive use) and possibly a licence of occupation	the development, construction and operation of a TISEC array field on Crown lands (Deployment stage(s)), in the following manner: <ul style="list-style-type: none"> • A single lease (exclusive use) will be issued for all TISEC project array fields, and • An associated licence of occupation (non-exclusive use) will be issued to authorize all distribution lines within the array field or to substations.

Continued on next page

6.0 Land Tenure and Rights, Continued

6.2 Term of Disposition

The Minister may issue dispositions in accordance with Table 11.

Table 11: Term of Dispositions

The Minister may issue	For the following stage	Term
A licence of occupation	Pre-deployment stage	For a period up to 24 months
A lease and associated licence of occupation	Experimental stage	For a period up to 24 months
A lease and associated licence of occupation	Deployment stage	For a period up to 20 years
With the approval of the Lieutenant-Governor in Council	Deployment stage	For a period over 20 years and up to 30 years

6.3 Assignments and Sub-leases

The holder of a disposition cannot assign or sub-let to third parties, successors, assigns or beneficiaries, unless written permission is obtained from the Minister.

6.4 Cancellation

The Minister reserves the right to cancel dispositions and order removal of all equipment, device(s) and improvement(s) within a timeframe determined in consideration of:

- a) Nature of the problem;
- b) Actual or potential impact on environment, wildlife and sea life;
- c) Weather conditions and time of year; and
- d) Availability of necessary equipment.

Reasons for cancellation may include, but are not limited to:

- a) Issues of public health and safety,
- b) Detrimental ecological or socio-economic impacts,
- c) Unattended freely moving or drifting equipment, devices or improvements;
- d) Encroachment on the rights of others;
- e) Significant infringement on the activities of traditional users;
- f) Non-compliance with this Policy or the terms, covenants or conditions of a disposition;

Continued on next page

6.0 Land Tenure and Rights, Continued

6.4 Cancellation (continued)

- g) Project progress not in accordance with the SDP or other documents or plans submitted under the Application Requirements; and
 - h) Failure to undertake any research or site activity or failure to fully develop the project within the specified timeframes, unless the holder of a disposition can provide DNR with just cause as to the nature of any delay, and evidence of progress towards construction and development.
-

7.0 Inquiries

7.1 Written Inquiries

Inquiries concerning this Policy may be made in writing to:

Director, Crown Lands Branch
Department of Natural Resources
P.O. Box 6000, Fredericton
New Brunswick, Canada, E3B 5H1

7.2 Phone Inquiries

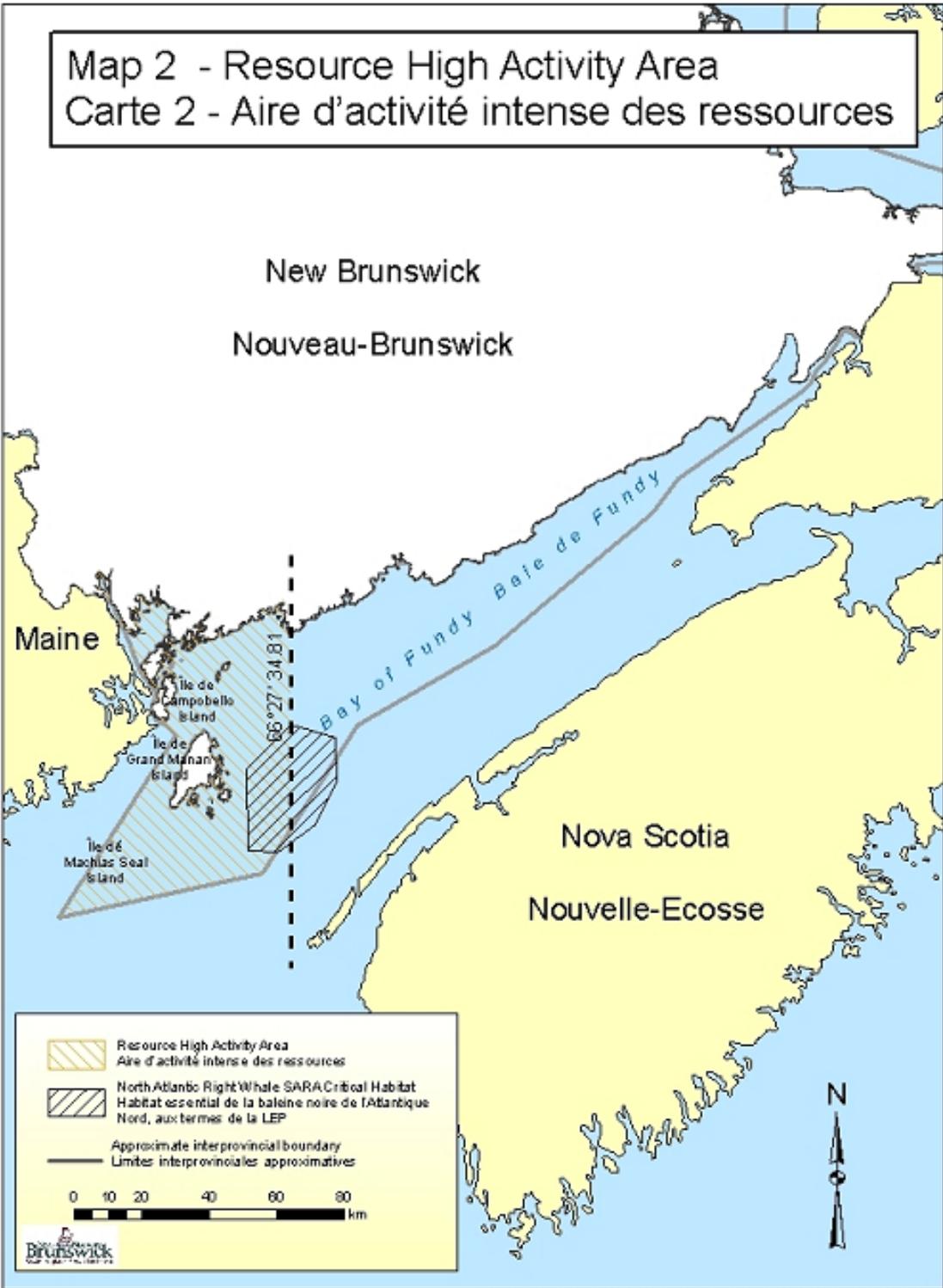
Telephone inquiries concerning this Policy may be made by calling the Land Use Application Service Centre at 1-888-312-5600.

7.3 E-mail Inquiries

E-mail inquiries concerning this Policy may be made by e-mailing the Land Use Application Service Centre at cltc@gnb.ca

Appendix A: Resource High Activity Area Map

A.1 Map 2



Appendix B: Interpretation Regarding the Implementation of Siting Standards

B.1 Number of Devices per Area

Section 5.5.2 of this Policy stipulates that site locations proposed for TISEC project dispositions in a Resource High Activity Area shall

- d) Not create a TISEC project density that exceeds ten (10) TISEC devices per one thousand hectares (10 square kilometres).

In implementing the requirements of paragraph 5.5.2 d) in relation to the maximum density (10 devices per 1000 ha), the intent is neither to apply nor implement this density standard within each project site.

The intent is not to require a density of one (1) device per 100 ha. In other words, the maximum density of 10 devices/1000 ha cannot be simplified to a density of one (1) device/100 ha.

So it is important to keep in mind that the intent is only to apply this density on the basis of 1000 ha and not on a smaller area. For example, densities shown in Figures A and B are both acceptable.

Figure A: Density of 10 devices/100 ha but not necessarily 1 device/10 ha

Legend

- + TISEC device (proponent 1)
- * TISEC device (proponent 2)
- x TISEC device (proponent 3)

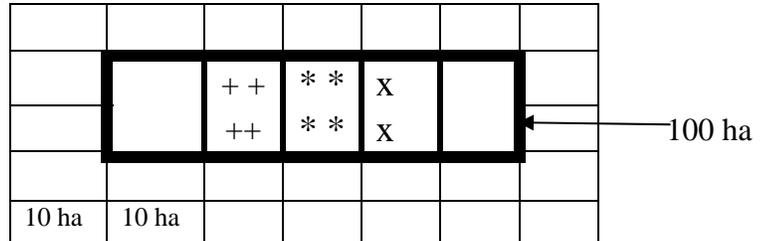


Figure B: Density of 10 devices/100 ha and 1 device/10 ha

Legend

- + TISEC device (proponent 1)
- * TISEC device (proponent 2)
- x TISEC device (proponent 3)
- <> TISEC device (proponent 4)
- # TISEC device for (proponent 5)

