

**STAFF REPORT:**

**REPORT TO:** Council  
**MEETING DATE:** July 13, 2009  
**REPORT NO.:** SPS.09.03  
**SUBJECT:** Bill 150 – Green Energy and Green Economy Act (Regulation and Policy)  
**PREPARED BY:** Peter Tollefsen, Director of Special Projects (Sustainability) and Cindy Welsh, Senior Policy Planner

**A. Recommendations**

**THAT Council receive Staff Report SPS.09.03 Bill 150 – Green Energy and Green Economy Act (Regulation and Policy) for information purposes; and**

**THAT Council direct staff to forward these comments to the Ministry of the Environment, Environmental Programs Division, Program Planning and Implementation Branch and the Ministry of Natural Resources, Natural Resource Management Division, Lands and Water Branch, as per the Ontario Environmental Registry postings.**

**B. Background**

Staff reported to the Planning and Building Committee on April 6, 2009, regarding Bill 150, the *Green Energy and Green Economy Act*. It received first reading February 23, 2009, and second reading March 11, 2009, by the Legislative Assembly of Ontario and referred to Standing Committee for public comment. Concern was expressed by Council with some aspects of the Act and a resolution was passed and delivered to the Standing Committee. Bill 150 received third reading and Royal Assent on May 14, 2009.

The Act places a priority on expanding the use of renewable sources of energy including wind, water, solar, biomass and biogas power. The regulation under the Act entitled *Proposed Ministry of the Environment Regulations to Implement the Green Energy and Green Economy Act, 2009*, has been released for comment. This regulation can be found on the Ontario Environmental Registry EBR Registry Number: 010-6516 and information is attached to this report. The deadline for comments is July 24, 2009.

The Province is proposing a one-window approval process and standardized requirements for renewable energy projects. The Ministries of Natural Resources (MNR) and the Environment (MOE) will issue approvals for renewable energy projects and are proposing an approval process to ensure continued protection.

The proposed content for the renewable energy approval is found in the regulation. It deals with renewable energy approval requirements, with complete application criteria including consultation. There is a three step application approval process, third party appeal, public notice and community consultation.

Proposed approval requirements include wind turbines not being permitted within 550 metres from the nearest human habitation, and this minimum setback would increase with the number and loudness of turbines. It is also proposed that wind turbines be setback from roadways and property lines, and there would be on going requirements to monitor and address low-frequency noise and vibrations. Natural heritage features, such as significant wetlands or significant wild life habitat, would be protected by the setback of 120 metres, with development only being able to move closer where there is a study demonstrating the ability to mitigate negative impacts.

Staff attended a Government of Ontario public information session in Port Elgin which presented the proposed requirements for renewable energy projects. Issues raised at this session included the following: municipalities will no longer be the approval authority, health concerns, restrictions placed on vacant lots of record, the Point of Reception not including livestock facilities, transition phase and existing problems with wind turbines currently in place.

The proposed policy under the Act entitled *Approval and Permitting Requirements Document for Renewable Energy Projects* has also been released for comment. It is EBR Registry Number: 010-6708 and information is attached on this policy. The Ministry of Natural Resources has draft approval and permitting requirements for renewable energy projects where natural resources will be impacted or projects are being proposed on Crown land. Its content outlines the complete submission process and requirements for renewable energy projects.

Both the draft regulation and policy identify what proponents must do in order to file a complete submission for a Renewable Energy Approval including plans, studies, consultation and technology-specific requirements such as setbacks where applicable. The application process is proponent driven.

Generally the policies and criteria requiring setbacks from human habitation and municipal consultation appears good. Specific comments relating to the MOE's draft regulation are as follows:

The overall application process is not presented in a format that is easily understood. The MOE should append the regulation with a flow chart which outlines the application process.

#### Part I – Definitions

There are no definitions for biomass, biogas and biofuel presented yet these terms appear throughout the regulation.

#### Part II – Renewable Energy Approval Requirements

## Application Process

### Pg. 4, Paragraph 1

Add at the end of the first sentence it is proposed to add the following: “and notify the municipality where the project is located.”

## Third Party Appeal of Director’s Decision

### Pg. 5, Paragraph 2

At the end of the Paragraph, it is proposed to add the following sentence.

“When a third party appeal is submitted to the Environmental Review Tribunal, the Tribunal must notify the municipality where the project is located of such appeals.”

## Part III - Explanation of General Requirements

### 1) Public Notice and Community Consultation

#### Pg. 5, Paragraph , 1<sup>st</sup> Sentence

Will the Ministry of the Environment be providing the proponents with the names and addresses of property owners within no less than a 1.5 km radius of proposed renewable energy generation facilities? Municipalities do not provide names and addresses of property owners to the public.

The term “preliminary stage” should be further defined.

#### Pg. 5, Paragraph 2, 3<sup>rd</sup> Sentence

Where will the required studies be made available for public review 30 days prior to the date of the community consultation? Typically, *Planning Act* applications and related studies are made available at Municipal Offices, however since these applications are not *Planning Act* applications, where will the public be able to access this information.

### 2) Municipal Consultation

#### Pg. 6, Paragraph 2

It is suggested that proponents be required to consult with municipalities regarding decommissioning for renewal energy projects including testing facilities.

#### Pg. 6, Paragraph 6, 1<sup>st</sup> Sentence

Will the Municipality be able to charge a fee for having to assist the proponent in completion of the Ministry of the Environment’s template? Municipal staff will be required to gather information for the proponent without any costs associated for this work. Typically fees are charged by municipalities for this type of work.

### 3) Cultural Heritage

#### Pg. 7, Paragraph 5, 1<sup>st</sup> Sentence

What is meant by a “self-assessment”? The MOE should provide a definition for this term.

## Part IV – Explanation of Technology-Specific Requirements

### A. Land-based Wind Turbine Facilities

There is no reference to Shadow Flicker Studies or Ice Throw Studies being required for land-based wind turbine facilities.

#### Noise Setbacks

##### Pg. 13, Paragraph 1

Where wind turbine energy projects are subject to the mandatory minimum setbacks from the closest Point of Reception and there are vacant existing lots of record between the two, will these lots become undevelopable? In the *Noise Guidelines for Wind Farms*, Ministry of the Environment, October 2008, Section 6.3.3 receptors include vacant lots.

#### Decommissioning Plan

##### Pg. 15, Paragraph 1

At the end of the first sentence it is proposed to add the following sentence. "Proponents will be required to submit a copy of the decommissioning plan to the municipality."

Will securities be required to be collected and held for the decommissioning land-based wind turbine facilities? If yes, it is recommended the Province hold these securities.

#### B. Off-Shore Wind Turbine Facilities

##### Pg. 15, Paragraph 1

It is proposed that proponents of off-shore wind turbine facilities be required to provide notice to neighbouring municipalities which have shore line frontage where facilities are to be located off-shore.

#### G. Solar Photovoltaic Facilities

##### Pg. 24, Paragraph 4, 1<sup>st</sup> Sentence

The MOE is proposing that Financial Assurance be required for future clean-up and remediation of the site. It is recommended this consideration be in place for Land-based Wind Turbine Facilities as well.

The MNR requirements are based on existing legislated approvals and permits. They will primarily address instances where natural resources will be impacted or projects are being proposed on Crown land. The Blue Mountains does have Crown lands within its boundaries therefore this draft policy may apply to proposed renewable energy projects in the municipality if on Crown land.

Both the draft MOE regulation and MNR policy do not address the issue of peer review for studies proponents must undertake. Future regulations or directions from both the Ministries of Natural Resources and the Environment should provide direction on this.

### **C. The Blue Mountains' Strategic Plan**

Staff comments and concerns on the regulation and policy are in keeping with:

1. Managing growth to ensure the ongoing health and prosperity of the community.

#### **D. Environmental Impacts**

There will be environmental impacts however it is too early in the process for these to be determined.

#### **E. Budget Impact**

Not measurable at this time.

#### **F. Attached**

1. Proposed Ministry of the Environment Regulations to Implement the Green Energy and Green Economy Act, 2009 - EBR Registry Number: 010-6516.
2. Approval and Permitting Requirements Document for Renewable Energy Projects – EBR Registry Number: 010-6708.

Submitted by:

---

Peter Tollefsen  
Director of Special Projects (Sustainability)  
The Blue Mountains  
26 Bridge Street E.  
Box 310  
Thornbury, ON N0H 2P0  
Tel: (519) 599-3131, ext. 247  
Toll Free: 1-888-258-6867  
E-mail: [ptollefsen@thebluemountains.ca](mailto:ptollefsen@thebluemountains.ca)

---

Cindy Welsh, MCIP, RPP  
Senior Policy Planner  
The Blue Mountains  
26 Bridge Street E.  
Box 310  
Thornbury, ON N0H 2P0  
Tel: (519) 599-3131, ext. 262  
Toll Free: 1-888-258-6867  
Fax: (519) 599-3018  
E-mail: [cwelsh@thebluemountains.ca](mailto:cwelsh@thebluemountains.ca)



## Regulation Proposal Notice:

## Title:

Proposed Ministry of the Environment Regulations to Implement the Green Energy and Green Economy Act, 2009

EBR Registry Number: 010-6516

## Ministry:

Ministry of the Environment

Date Proposal loaded to the Registry:

June 09, 2009

Keyword(s): [Electricity](#) | [Legislation](#)

Related Act(s): [Environmental Assessment Act, R.S.O. 1990](#) | [Environmental Bill of Rights, 1993](#) | [Environmental Protection Act, R.S.O. 1990](#)

Comment Period: 45 days: submissions may be made between June 09, 2009 and July 24, 2009.

## Description of Regulation:

The *Green Energy and Green Economy Act, 2009*, was passed in the Legislature on May 14, 2009. The Act places a priority on expanding Ontario's use of clean and renewable sources of energy including wind, water, solar, biomass and biogas power. Developing these renewable resources is a cornerstone of this province's future prosperity.

The Ministries of Natural Resources and the Environment issue approvals for renewable energy projects and are proposing an improved approval process to ensure continued protection of human health and the environment. The ministries aim to administer their processes in a coordinated fashion with a view to integrating all provincial ministry requirements for the review and approval of renewable energy projects. A coordinated process will eliminate duplication, provide certainty and meet the requirements set out under legislation administered by various ministries.

The Ministry of Natural Resources has also posted information for public review regarding approval and permitting requirements for renewable energy projects under the *Ministry of Natural Resources Act*. It can be accessed by entering Registry Number 010-6708.

**Environmental Protection Act**, New Regulation

In order to implement the new Renewable Energy Approval under amendments to the *Environmental Protection Act* (Schedule G) a new regulation is proposed.

The [attached document](#) outlines the proposed content of this regulation. It identifies the complete submission requirements an application for a Renewable Energy Approval would be required to meet, including plans, studies, consultation, and technology-specific requirements such as setbacks where applicable.

Regulatory Amendments under the **Environmental Assessment Act** and the **Environmental Bill of Rights, 1993**

It is proposed that five regulations be amended as part of the new approval process under the *Green Energy and Economy Act, 2009*.

- **Environmental Assessment Act**, Ontario Regulation 116/01 (Electricity Projects)

It is proposed that O. Reg 116/01 be amended to create an exception for most renewable energy generation facilities, as this term is defined in the *Electricity Act, 1998*. The result is

## Contact:

All comments on this proposal must be directed to:

Marcia Wallace  
 Manager  
 Ministry of the Environment  
 Environmental Programs Division  
 Program Planning and  
 Implementation Branch  
 55 St. Clair Avenue West  
 Floor 7  
 Toronto Ontario  
 M4V 2Y7  
 Phone: (416) 327-2079  
 Fax: (416) 327-9823

To submit a comment online, click the submit button below:

## Additional Information:

The following government offices have additional information regarding this Proposal. To arrange a viewing of these documents please call the Ministry

that, going forward, this regulation and the *Environmental Assessment Act* will not apply to the establishment or change of these renewable energy generation facilities.

This is subject to two exceptions: the establishment of hydro electric facilities 200 Megawatts (MW) or larger and expansions to existing hydro electric facilities that result in both a 25% increase in nameplate capacity and result in the facility having a nameplate capacity of 200 MW or more. For both of these situations, individual environmental assessments will be required.

In respect to renewable energy generation facilities that have already been authorized under the *Environmental Assessment Act*, the exception is proposed to be crafted so as to require proponents that have already completed an environmental assessment, class environmental assessment or the Environmental Screening Process to comply with the construction, operation and retirement of their project as originally authorized and to comply with any documented commitments made to the public or government agencies.

It is also proposed that the regulation be amended to clarify the application of exemptions for generation facilities by the Crown, Municipalities or public bodies.

- **Environmental Assessment Act**, Revised Regulations of Ontario 1990, Regulation 334 (General)

It is proposed that Regulation 334 be amended to state that renewable energy generation facilities and renewable energy testing facilities that are carried out by the Crown, municipalities or public bodies are exempt from the *Environmental Assessment Act*.

It is proposed that any undertakings of the Crown that are required to implement a renewable energy project or a renewable energy testing project (e.g. building an access road, a dock, a disposition of crown land, etc.) would be exempt from the Act.

It is also proposed that undertakings by a municipality that are roads and water crossings by municipality that are required for a renewable energy project will be exempt from the Act.

- **Environmental Assessment Act**, Ontario Regulation 101/07 (Waste Management Projects)

It is proposed that O. Reg 101/07 be amended to create an exception for most renewable energy generation facilities, as this term is defined in the *Electricity Act, 1998*. The result is that, going forward, this regulation and the *Environmental Assessment Act* will not apply to renewable energy generation facilities that are also a waste disposal site (e.g. a waste disposal site where biomass is disposed of through thermal treatment).

In respect to renewable energy generation facilities that have already been authorized under the *Environmental Assessment Act*, the exception is proposed to be crafted so as to require proponents that have already completed an environmental assessment, class environmental assessment or the Environmental Screening Process to comply with the construction, operation and retirement of their project as originally authorized and to comply with any documented commitments made to the public or government agencies.

- **Environmental Bill of Rights, 1993**, Ontario Regulation 681/94 (Classification of Proposals for Instruments)

It is proposed that an amendment to O. Reg. 681/94 be made to classify the Renewable Energy Approval as a Class II instrument under the *Environmental Bill of Rights, 1993*. This would require the Ministry of the Environment to give notice of proposals for a Renewable Energy Approval in accordance with the *Environmental Bill of Rights Act, 1993* and subject to any relevant exceptions.

- **Environmental Bill of Rights, 1993**, Ontario Regulation 73/94 (General)

It is proposed that an amendment to O. Reg. 73/94 be made to specify that the provisions of the *Environmental Bill of Rights, 1993* relating to leave to appeal do not apply to a proposal to issue, amend or revoke a Renewable Energy Approval. The leave to appeal

Contact or the Office listed below.

Program Planning and  
Implementation Branch  
55 St. Clair Avenue West  
Floor 7  
Toronto Ontario  
M4V 2Y7  
Phone: (416) 327-2079

The documents linked below are provided for the purposes of enhancing public consultation.

All links will open in a new window

1. [Green Energy Act homepage](#)
2. [Green Energy Act, 2009](#)
3. [Amended O. Reg. 116/01](#)
4. [Amended O. Reg. 101/07](#)
5. [Amended Revised Regulation of Ontario 1990, O. Reg. 334](#)
6. [Amended O. Reg. 681/94](#)
7. [Amended O. Reg. 73/94](#)
8. [Requirement Document - Approval and Permitting Requirements for Renewable Energy Projects \(EBR # 010-6708\)](#)
9. [Ecological Land Classification Primer](#)
10. [Lake Simcoe Protection Plan](#)
11. [Consultation Session](#)
12. [Proposed Content for the Renewable Energy Approval Regulation under the EPA](#)

process under the EBR is proposed to be replaced by an appeal as of right for third parties under the *Environmental Protection Act*.

It is also proposed that the regulation be amended to reflect the current names of the following ministries:

- o Ministry of Economic Development
- o Ministry of Energy and Infrastructure
- o Ministry of Government Services
- o Ministry of Small Business and Consumer Services

It is also proposed that the regulation be amended to reflect the repeal of the *Energy Conservation Leadership Act, 2006* and the *Energy Efficiency Act*. In addition, the regulation is proposed to be amended to prescribe the *Green Energy Act, 2009* and the *Ontario Heritage Act*.

***Environmental Protection Act***, Revised Regulations of Ontario 1990, Regulation 347 (General – Waste Management).

The Ministry of the Environment is considering making complementary amendments to Reg. 347 to facilitate:

- intermediate processing of biomass materials, if needed before being sent to a renewable energy generation facility to generate electricity, and
- the use of biomass materials from processing agricultural products as green energy for purposes other than electricity generation, such as for energy in a manufacturing process.

These regulations have not been developed or included here, but comments and suggestions concerning the nature of these possible amendments would be welcome through this Environmental Registry Posting. For example, comments and suggestions would be welcome on matters such as the following:

- the types of biomass materials to be dealt with in the possible amendments,
- possible rules and limitations on the handling, processing and use of these materials, and
- possible changes to existing waste management approval requirements to facilitate the use of these materials.

#### Purpose of Regulation:

The *Green Energy and Green Economy Act, 2009* and the proposed content of the new regulations represent a key pillar in supporting the development of Ontario's green economy. The proposed approach is based on sound science and will improve the environmental approval process for renewable energy projects, which will be protective of human health and the environment.

#### Other Information:

Please visit the *Green Energy and Green Economy Act, 2009* homepage at: <http://www.ontario.ca/greenenergy> for more information.

#### Public Consultation:

This proposal has been posted for a 45 day public review and comment period starting June 09, 2009. If you have any questions, or would like to submit your comments, please do so by July 24, 2009 to the individual listed under "Contact". Additionally, you may submit your comments on-line.

All comments received prior to July 24, 2009 will be considered as part of the decision-making process by the Ministry of the Environment if they are submitted in writing or electronically using the form provided in this notice and reference EBR Registry number 010-6516.

Please Note: All comments and submissions received will become part of the public record. You will not receive a formal response to your comment, however, relevant comments received as part of the public participation process for this proposal will be considered by the decision maker for this proposal.

#### Other Public Consultation Opportunities:



Public information meetings will be held in June, 2009 in locations across Ontario. For more information on the consultation sessions, please visit the Ministry of the Environment at <http://www.ene.gov.on.ca/en/business/green-energy/index.php>.

For further information, please contact 1-877-354-0707.

---

The materials on this web site are protected by Crown copyright. You may copy and re-distribute any of the Environmental Bill of Rights information on this web site provided that the contents remain unchanged and the source of the contents is clearly referenced. You are not permitted to alter or add to the contents.

[ONTARIO HOME](#) | [CONTACTS](#) | [HELP](#) | [SITEMAP](#) | [FRANÇAIS](#)



This site is maintained by the Government of Ontario, Canada.

[PRIVACY](#) | [IMPORTANT NOTICES](#)

Copyright information: [© Queen's Printer for Ontario, 1994-2009](#)

The Ministry of the Environment, in support of the *Green Energy and Green Economy Act, 2009*, S.O. 2009, c. 12 is consulting on the content of proposed implementing regulations.

The Province of Ontario has placed a priority on expanding Ontario's use of clean and renewable sources of energy such as wind, water, solar, biomass, biogas and biofuels. Developing these substantial resources is a cornerstone of this province's future prosperity and its commitment to protecting the environment.

The *Green Energy and Green Economy Act, 2009* is a key step in the province's plan to combat climate change. An increased emphasis on renewable energy sources in our provincial power mix will reduce air pollution and greenhouse gas emissions.

A key element of this proposal is a streamlined provincial approval process for renewable energy projects, based on the concept of a complete submission. The complete submission integrates into a coordinated process all provincial government requirements for the review and decision making on proposed renewable energy facilities. While this approach provides for transparency and coordination, it retains the existing legislative requirements set out by various Ministries.

This regulatory proposal outlines the Ministry of Environment requirements for review and decision making regarding Renewable Energy Approvals (REA). Other complete submission requirements are being proposed by the Ministry of Natural Resources' in their *DRAFT - Approval and Permitting Requirements for Renewable Energy Projects*.

The legislation, regulations and policy documents all work together to provide a clear set of rules for proponents of Renewable Energy Facilities, and the communities that could be home to these facilities.

This Environmental Bill of Rights Registry posting is a regulatory proposal that sets out the proposal for implementing the changes to the *Environmental Protection Act* (Schedule G of the *Green Energy and Green Economy Act, 2009*).

**Part I** of this document defines terms relevant to the proposed Renewable Energy Approval.

**Part II** of this document outlines the proposed requirements proponents must meet to obtain a Renewable Energy Approval for renewable energy generation facilities.

**Part III** of this document provides further detail on the proposed general requirements for all proposed renewable energy generation facilities.

**Part IV** of this document provides further detail on the proposed technology-specific requirements that apply to the different types of renewable energy generation facilities (e.g. wind, solar, biomass, etc.).

## **Part I – Definitions**

For the purposes of regulations under the *Environmental Protection Act*, the *Environmental Assessment Act*, and the *Environmental Bill of Rights, 1993*, the terms below have the same definitions as in schedules A and B of the *Green Energy and Green Economy Act, 2009*.

**“renewable energy generation facility”** means a generation facility that generates electricity from a renewable energy source and that meets such criteria as may be prescribed by regulation and includes associated or ancillary equipment, systems and technologies as may be prescribed by regulation, but does not include an associated waste disposal site, unless the site is prescribed by regulation for the purposes of this definition; (“installation de production d’énergie renouvelable”)

It is anticipated that the Ministry of Energy and Infrastructure will bring forward a regulation under the *Electricity Act, 1998* to clarify that “associated or ancillary equipment, systems, and technologies” will include transmission connecting a proposed renewable energy facility to the existing transmission or distribution electricity grid, and roads and other transportation infrastructure (e.g. access roads, ferry dock) required to connect the renewable energy project to existing transportation systems. These associated or ancillary equipment, systems, and technologies will be reviewed as part of the Renewable Energy Approval application.

**“renewable energy project”** means the construction, installation, use, operation, changing or retiring of a renewable energy generation facility; (“projet d’énergie renouvelable”)

**“renewable energy testing facility”** means devices or structures used to gather information about natural conditions at the location of the structures or devices and related infrastructure and that meet such criteria as may be prescribed by the regulations; (“installation d’évaluation du potentiel en énergie renouvelable”)

A Renewable Energy Approval will not be required for renewable energy testing facilities. However, for any renewable energy testing facilities proposed on Crown land, a proponent must fulfill requirements established by the Ministry of Natural Resources.

**“renewable energy source”** means an energy source that is renewed by natural processes and includes wind, water, biomass, biogas, biofuel, solar energy, geothermal energy, tidal forces and such other energy sources as may be prescribed by the regulations, but only if the energy source satisfies such criteria as may be prescribed by the regulations for that energy source; (“source d’énergie renouvelable”)

It is anticipated that the Ministry of Energy and Infrastructure will be defining the terms “biomass”, “biogas” and “biofuel” in a proposed regulation under the *Electricity Act, 1998*. In defining these terms it is expected that the Ministry of Energy and Infrastructure will confirm existing usage of these terms to exclude energy generated from non-organic waste.

## **Part II – Renewable Energy Approval Requirements**

It is proposed that proponents of new renewable energy generation facilities, or proponents of expansions, modifications, and redevelopments of commissioned renewable energy facilities will be required to submit to the Ministry of the Environment a Renewable Energy Approval application form, along with supporting documentation.

### **Applications for a Renewable Energy Approval will include the following:**

- **Description of Project** – within the application, the proponent will submit the proponent name, proponent address, the type of renewable energy generation facility (e.g., wind, water, biomass, etc.), nature of the activity (e.g., new installation, expansion, etc.), location of the renewable energy generation facility, land tenure (e.g., lease, ownership, etc.), name plate capacity and expected generation of the renewable energy generation facility, and name and address of the municipal clerk(s) where the project is located.
- **Construction Plan** – addressing, among other matters, the identification and mitigation of impacts related to the construction and installation of the renewable energy generation facility.
- **Site Plan** – including one or more scaled diagrams showing site features, such as: property boundaries; facility location; on-site infrastructure; natural heritage and sensitive hydrologic features; and surrounding land uses and Points of Reception that may be impacted by operations at the facility.
- **Stormwater Management Plan** – addressing on-site drainage and the management of stormwater that is collected on-site.
- **Response Plan** – addressing, among other matters, processes and procedures for communicating operational changes and emergency circumstances, and management of issues arising from the operation of the renewable energy generation facility.
- **Consultation Summary** – including a detailed summary of public, municipal, and Aboriginal consultation, including what concerns were raised and how they were dealt with (see sections 1, 2, 3).
- **Cultural Heritage** – demonstration that any cultural heritage resource considerations are assessed and mitigated, if applicable (see Part III, section 4).
- **Natural Heritage** – evidence that the facility is sited outside setbacks for significant natural heritage features, or documentation of a mitigation approach and written confirmation that the Ministry of Natural Resources reviewed the approach when siting closer (see Part III, section 5).
- **Water Bodies** – evidence that the facility site is outside setbacks for sensitive hydrologic features, or documentation of a mitigation approach when siting closer (see Part III, section 6).
- **Provincial Policy Plans** – description of if and how Provincial Policy Plans apply to the renewable energy generation facility, and documentation that development is permitted, if siting on the Niagara Escarpment (see Part III, section 7).
- **Technology-Specific Requirements** – other documentation as appropriate to support technology specific requirements (see Part IV).

Explanation of these Renewable Energy Approval requirements are set out in greater detail in Part III and Part IV of this document.

### **Application Process**

Once the Ministry has determined that an application is complete, it will post a proposal notice on the Environmental Bill of Rights Registry. Following the public comment period, the Ministry will begin its formal review of the application.

Depending on the nature and scope of the proposed renewable energy project, the Ministry of the Environment will coordinate the review with appropriate Ministries and federal departments and agencies.

Once a decision is made on the application and the proponent is notified, the Ministry of the Environment will issue a notice of the decision on the Environmental Bill of Rights Registry. If the decision is to issue an approval, this would allow the project to proceed, subject to any other legal requirements.

Should a project be approved, notice of the decision will be given to the municipality where the project is located and to any aboriginal community that was consulted.

It is proposed that additional public notification of the decision on the project be made in a suitable manner (e.g. a local newspaper).

### **Transition**

Renewable energy generation facilities currently holding all required approvals for their facility such as Certificate(s) of Approval and Permit to Take Water will not require a Renewable Energy Approval, unless or until an amendment to the Certificate of Approval is required or the Permit to Take Water is required or the Permit to Take Water expires.

It is proposed that all applications before the Ministry of the Environment for Certificates of Approval (air and noise, waste disposal sites or sewage works) or Permits To Take Water that are required in respect of renewable energy generation facilities, will be returned to the applicant when the amendments to the *Environmental Protection Act* come into force. Applicants will have to resubmit an application in accordance with the regulation to obtain a Renewable Energy Approval, and meet all of the requirements of the regulation.

If a proponent has issued a notice of completion for a proposed renewable energy facility prior to the *Environmental Protection Act* amendments coming into force, all requirements of the regulation will apply except:

- Requirements under section 2 of this document will not apply when a site plan agreement is in place with the municipality,
- Requirements under sections 5 to 7 of this document will not apply when *Planning Act* approvals up to the point of site plan agreement have been obtained.

In addition, it is proposed that for those proposed facilities that have been authorized to proceed (issued a statement of completion under the environmental assessment process, issued a notice under section 9 of the *Environmental Assessment Act*, or completed a class environmental assessment process) prior to the *Environmental Protection Act* amendments coming into force, the new appeal process under the *Environmental Protection Act*, as outlined in the section below (Third Party Appeal of

Ministry Decision) will not apply, as these projects have already been subject to an elevation or appeals process.

For proposed significant modifications to existing facilities, the proponent would be required to submit a complete application for a Renewable Energy Approval.

For proposed changes other than significant modifications proponents must meet the technology-specific requirements for only the portion of the project that is changing. The Ministry of the Environment will issue a Renewable Energy Approval for the project.

Where an existing Certificate of Approval or Permit to Take Water must be amended for administrative reasons (e.g., name changes, address changes, etc.) the project will not be considered as part of the Renewable Energy Approval process.

### **Third Party Appeal of Director's Decision**

A third party must request an appeal within 15 days of the notice of the decision respecting the Renewable Energy Approval being posted on the Environmental Registry.

Under the *Environmental Protection Act* the Environmental Review Tribunal (ERT) has a regulated timeline for making a decision on a third party appeal. Should the timeline for an Environmental Review Tribunal decision not be met, the Director's decision is deemed to be confirmed.

It is proposed that the time period be 9 months from the date that a hearing is requested to the issuance of a decision by the Tribunal.

## **Part III – Explanation of General Requirements**

It is proposed that the following requirements would apply to all renewable energy generation projects.

### **1) Public Notice and Community Consultation**

It is proposed that renewable energy project proponents will be required to provide public notice within no less than a 1.5 km radius of the proposed renewable energy generation facility at a preliminary stage of project planning. Proponents will also be required to post notice of the proposed project in a local newspaper of general circulation within the municipality where the project is located. It is also proposed that the proponent would be required to hold a community consultation meeting at this stage, so that local residents and interested parties can be consulted in the early stages of project development.

The proponent will then be required to commence any required studies and project design work. Once ready to submit the application for Ministry of the Environment review, the proponent will be required to hold at least one community consultation meeting to discuss the project and its potential local impact. Any required studies must be made available for public review 30 days prior to the date of the community consultation meeting, or, if there is more than one meeting, before the final meeting. The proponent will be required to provide documentation of all community consultation efforts, and explain how it attempted to address issues raised during the community consultation.

It is proposed that for the following types of facilities that are subject to a renewable energy approval, the proponent would be required to provide notice as above but will not be required to hold community consultation meetings:

- Wind power with a name plate capacity greater than 3 kW and with a sound power rating less than 102 dBA
- Wall or roof mounted solar with a name plate capacity greater than 10 kW
- Farm-based biogas and biomass combustion facilities (see Part IV, sections C and D)

## **2) Municipal Consultation**

It is proposed that renewable energy project proponents will be required to consult with the municipality related to the following matters:

- Proposed project area and property boundaries
- Proposed road access location
- Location and type of municipal service connections that may be required
- Traffic management plans during construction and operation
- Construction plans related to rehabilitation of temporary disturbance areas and any municipal infrastructure that may be damaged during construction
- Emergency management procedures/ safety protocols as specified in the Response Plan
- Proposed site landscaping, if applicable

It is proposed that renewable energy project proponents must provide the Ministry with the following information:

- Easements or restrictive covenants on the property,
- Location of fire hydrants and service connections to drainage, water works, sanitary sewer and gas/hydro,
- Location of buried kiosks and above grade utility vaults and,
- Existing and proposed services for local gas and hydro lines.

This information will be collected by the proponent during municipal consultation about the proposed facility.

The Ministry of the Environment will provide a template to the proponent that will be completed in conjunction with the municipality. The proponent will be required to provide this documentation or explain why it was unable to do so, and explain how the proponent attempted to address any issues raised during municipal consultation.

It is proposed that for the following types of facilities that are subject to a renewable energy approval, the proponent would not be required to consult with the municipality:

- Wind power with a name plate capacity greater than 3 kW and with a sound power rating less than 102 dBA
- Wall or roof mounted solar with a name plate capacity greater than 10 kW
- Farm-based biogas and biomass combustion facilities (see Part IV, sections C and D)

## **3) Aboriginal Consultation**

The Government of Ontario recognizes that the duty to consult with Aboriginal peoples on decisions that may affect a constitutionally protected aboriginal or treaty right resides with the Crown. In fulfilling this duty, the Crown may delegate some aspects of

consultation to proponents who are seeking approval on a particular project. It is proposed that renewable energy project proponents be required to carry out specified procedural aspects of consultation with Aboriginal communities in Ontario, on behalf of the Crown.

Documentation related to this delegated consultation must accompany the application for a Renewable Energy Approval and at a minimum include the following:

- Evidence of contact with the Crown for a list of aboriginal communities that must be consulted;
- A consultation plan addressing the delegated aspects.
- The form or type of notice given to the identified Aboriginal communities of the proposed, facility early in the planning stages;
- Evidence that identified Aboriginal communities were informed about the location and nature of the proposed renewable energy generation facility as well as the regulatory and approval processes that apply to the facility;
- Evidence that the proponent made best efforts to meet with the identified Aboriginal communities to discuss the project;
- All requests for information arising out of consultation, and documentation of discussion of any asserted Aboriginal or treaty right identified by the community as potentially being adversely affected by the project, and any measures the community suggested to mitigate those potential negative impacts; and,
- Evidence of potentially adverse effects on Aboriginal or treaty rights, and proposed mitigation measures to address identified effects in the renewable energy project design.

The Crown proposes to coordinate the Provincial response to renewable energy proponents concerning which Aboriginal communities are to be consulted on any given project, and the steps referred to above for undertaking and documenting delegated consultation responsibilities.

The Crown proposes to clarify, through subsequent guidance materials, its responsibilities for the substantive and procedural aspects of consultation and the appropriate accommodation of Aboriginal communities.

#### **4) Cultural Heritage**

It is proposed that proponents would be required to undertake a self-assessment to identify any known or potential effects to archaeological or heritage resources that could result from the project. If any known or potential negative impacts are identified, then it is further proposed that proponents would undertake an archaeological and/or heritage assessment to confirm findings and to mitigate any potential negative impacts, and to provide written confirmation that the Ministry of Culture reviewed the assessment(s).

Where a renewable energy generation facility is proposed on a property where by-laws, instruments or agreements under Part II, IV and V of the *Ontario Heritage Act* that protect cultural heritage are in place, no heritage assessment is required. It is proposed that the proponent would be required to provide written confirmation that the local council or agreement holder(s) have provided consent to modify the property.

Heritage assessment requirements would not apply to renewable energy generation facilities, provided that the proposed facility can be described as:



- Wind power with a name plate capacity greater than 3 kW and with a sound power rating less than 102 dBA
- Wall or roof mounted solar with a name plate capacity greater than 10 kW
- Farm-based biogas and biomass facilities (see Part IV, sections C and D)

Archaeological assessments would only apply to the renewable energy generation facilities identified immediately above if they are to be located on a property covered by a municipal archaeological management plan that identifies the property as being of archaeological concern, and/or have known archaeological resources within 250 metre radius.

**5) Natural Heritage**

The proposed policies associated with natural heritage features do not apply to renewable energy generation facilities that maintain a minimum setback distance. Nor do they apply where a more stringent requirement exists in section 7 of this document.

A proponent submitting an application for a Renewable Energy Approval must demonstrate the proposed facility will meet the minimum setbacks identified below. If the proponent wishes to locate its facility within the applicable setback, the proponent must provide documentation of the proposed mitigation approach, and provide written confirmation that the Ministry of Natural Resources reviewed the approach.

<b>Feature</b>	<b>Setback Required</b>	<b>Study Alternative</b>
<b>Significant wetlands in Ecoregions 5E, 6E and 7E*</b>	120 metres from any part of feature	While not permitted within the feature, development and site alteration may be possible within 120 metres of the feature. The proponent would be required to undertake an environmental impact study, demonstrating the ability to mitigate negative impacts.
<b>Significant wetlands in the Canadian Shield north of Ecoregions 5E, 6E and 7E*</b>	120 metres from any part of feature	An environmental impact study, demonstrating the ability to mitigate negative impacts
<b>Significant coastal wetlands</b>	120 metres from any part of feature	While not permitted within the feature, development and site alteration may be possible within 120 metres of the feature. The proponent would be required to undertake an environmental impact study, demonstrating the ability to mitigate negative impacts.
<b>Significant areas of natural and scientific interest (life science)</b>	120 metres from any part of feature	An environmental impact study, demonstrating the ability to mitigate negative impacts

Feature	Setback Required	Study Alternative
<b>Significant areas of natural and scientific interest (earth science)</b>	50 metres from any part of feature	An environmental impact study, demonstrating the ability to mitigate negative impacts
<b>Significant valleylands (South and East of the Canadian Shield)</b>	120 metres from stable top of bank	An environmental impact study, demonstrating the ability to mitigate negative impacts
<b>Significant woodlands (South and East of the Canadian Shield)</b>	120 metres from any part of feature	An environmental impact study, demonstrating the ability to mitigate negative impacts
<b>Significant wildlife habitat (e.g. birds and bats)</b>	120 metres from any part of feature	An environmental impact study, demonstrating the ability to mitigate negative impacts
<b>Provincial Parks and Conservation Reserves</b>	120 metres from the outer park boundary	While generally not permitted within the park or conservation reserve, development may be possible within 120 metres. The proponent would be required to undertake an environmental impact study demonstrating the ability to mitigate any negative impacts
<b>Lake Trout Lakes designated by the Ministry of Natural Resources</b>	120 metres from the shoreline of a lake below development capacity	An environmental impact study, demonstrating the ability to mitigate negative impacts
	300 metres from the shoreline of a lake above development capacity	

\* For wetlands, refer to the Ministry of Natural Resources map “*Ecoregions of Ontario*”

### Records Review and Site Investigation

The proponent shall undertake a records review of documents containing natural environment baseline information about any features within 120 metres of the facility. It will document locations of features, their natural values and evaluate the significance of the feature.

A site investigation will follow the records review. The proponent will investigate the significant natural features as identified in the records review. During the site investigation the proponent will confirm the presence, location and boundary of the feature.

### **Minimum Setbacks Maintained**

Where a proposed facility will meet the setback requirements for all of the features listed above, a proponent will prepare and submit explanatory notes about the features and their natural values and significance. In addition the proponent will prepare and submit an air photo documenting the boundary of the features, the location of the facility and the required setback. This documentation will demonstrate that the separation distance has been maintained.

### **Assessment**

Where a facility is proposed within 120 metres of a significant natural heritage feature or within 50 metres of a significant earth science area of natural and scientific interest, the proponent must provide an air photo showing the boundary of the feature(s) and the location of the proposed facility. The proponent will also prepare and submit explanatory notes about the feature(s) and their natural values and significance.

It is proposed that the Proponent will complete an Environmental Impact Study documenting the potential level of effect of the facility on the features and proposed mitigation measures. The proponent will submit a letter confirming that the Environmental Impact Study was done in accordance with procedures and guidance established by the Ministry of Natural Resources. It will also include advice, if any, to the Ministry of the Environment on issues related to the natural heritage feature(s) within the minimum setback of the facility.

### **Exception**

Since all hydro electric facilities and off-shore wind turbine facilities will be required to assess effects and document mitigation measures that will be used to protect the natural environment including natural heritage features, such renewable energy projects are not subject to requirements regarding natural heritage features. The proponent can voluntarily use the setbacks instead of undertaking an Environmental Impact Study when siting land-based components of the facility (e.g. transmission, roads, etc.).

## **6) Water Bodies**

The proposed policies associated with sensitive hydrologic features do not apply to renewable energy generation facilities that maintain a minimum setback distance. Nor do they apply where a more stringent requirement exists as set out in section 7 of this document.

Sensitive hydrologic features include the following: lakes, permanent and intermittent streams seepage areas and springs that are particularly susceptible to impacts from activities or events including, but not limited to, water withdrawals, and additions of pollutants.

It is proposed that a renewable energy generation facility will not be permitted within 120 metres of a hydrologic feature, unless the proponent demonstrates an ability to mitigate the effects. At no time will a renewable energy generation facility be permitted closer than 30 metres of a sensitive hydrologic feature. All water crossings, bridges, culverts and causeways are exempt from this requirement as they are subject to the Ministry of Natural Resources' *Lakes and Rivers Improvement Act*.

**Records Review and Site Investigation**

To show that a facility will not be located in a sensitive hydrologic feature, or within 120 metres of it, a proponent will complete a records review. The proponent shall undertake a records review of documents containing natural environment baseline information about any hydrologic feature(s) within 120 metres of the facility. It will document locations of any hydrologic feature(s), their natural values, and evaluate the sensitivity of the hydrologic feature(s).

A site investigation will follow the records review. The proponent will investigate sensitive hydrologic features identified in the records review. During the site investigation the proponent will confirm the presence, location and boundary of the feature.

<b>Feature</b>	<b>Setback Required</b>	<b>Study Alternative</b>
<b>Lakes</b>	120 metres of the shoreline	An environmental impact study that demonstrates the ability to mitigate negative impacts, limited to a 30 metre distance from the shoreline
<b>Permanent and intermittent streams</b>	120 metres of the shoreline	An environmental impact study that demonstrates the ability to mitigate negative impacts, limited to a 30 metre distance from the shoreline
<b>Seepage areas and springs</b>	120 metres of any part of feature	An environmental impact study that demonstrates the ability to mitigate negative impacts, limited to a 30 metre distance from the feature

**Exception**

Since all hydro electric facilities and off-shore wind turbine facilities will be required to assess effects and document mitigation measures that will be used to protect the natural environment including sensitive hydrologic features, such renewable energy projects are not subject to requirements regarding hydrologic features. The proponent can voluntarily use the setbacks instead of undertaking an Environmental Impact Study when siting land-based components of the facility (e.g. transmission, roads, etc.).

**7) Provincial Policy Plans**

It is proposed that the Regulation will incorporate aspects of the following Provincial Policy Plan Areas and the protection that Provincial Policy Plans afford the natural environment through policies controlling development and site alteration.

**Niagara Escarpment**

Where a project is located within an area of development control established by regulation made under the *Niagara Escarpment Planning and Development Act*, and the proposed development is not exempt under the regulations, a proponent is required to demonstrate that the proponent has applied for and met the requirements for a development permit to the satisfaction of the Niagara Escarpment Commission, before the government will consider an application to be complete.

### **Oak Ridges Moraine**

Facilities proposed within the wellhead protection areas and areas of high aquifer vulnerability described in the Oak Ridges Moraine Conservation Plan shall not include prohibited uses (e.g. waste disposal sites and facilities) set out in the Plan. Stormwater management plans associated with a facility will not include plans to build rapid infiltration basins or rapid infiltration columns that are prohibited in the Oak Ridges Moraine Plan Area.

Key natural heritage features and key hydrologic sensitive features as defined in the Oak Ridges Moraine Conservation Plan shall be protected in accordance with the rules of the plan. Renewable energy generation facilities proposed within the Oak Ridges Moraine Area will not encroach into the minimum setback zones or conditional development zones unless the proponent can demonstrate an ability to mitigate effects.

The Minimum setback zone as identified in the Oak Ridges Moraine Plan cannot be varied.

### **Greenbelt**

Key natural heritage features and key hydrologic features as defined in the Greenbelt Plan shall be protected in accordance with the rules of the plan. Renewable energy generation facilities proposed within the Greenbelt Area will not encroach into the minimum setback zones or conditional development zones unless the proponent can demonstrate an ability to mitigate effects

The Minimum setback zone as identified in the Greenbelt Plan cannot be varied.

### **Lake Simcoe**

Renewable energy generation facilities being planned within the Lake Simcoe Protection Plan Area shall protect the Lake Simcoe shoreline and natural heritage features in accordance with the policies applying to both Lake Simcoe and its permanent and intermittent streams.

Where a facility has the potential to alter the shoreline of Lake Simcoe, or one of its permanent or intermittent streams, the proponent will:

- Demonstrate the need for such alteration,
- Minimize the extent and impact of the alteration to the maximum extent feasible; and,
- Use natural shoreline treatments for stabilization and erosion control

### **Central Pickering**

Known significant archaeological sites within the area subject to the Central Pickering Development Plan shall be protected on-site to the greatest extent possible and proposed renewable energy generation facilities and projects shall be prohibited if they involve soil disturbance on such sites.

**Part IV – Explanation of Technology-Specific Requirements**

In addition to the general requirements that apply to all renewable energy generation facilities as outlined in Part III, this section details the proposed technology-specific requirements for renewable energy generation facilities requiring a Renewable Energy Approval:

- A. Land-based Wind Turbine Facilities
- B. Off-shore Wind Turbine Facilities
- C. Biogas Facilities (Anaerobic Digesters (AD))
- D. Biomass Facilities (Thermal Treatment)
- E. Landfill Gas Facilities
- F. Hydro Electric Facilities
- G. Solar Photovoltaic Facilities

***A. Land-based Wind Turbine Facilities***

It is proposed that wind turbine facilities with a name plate capacity equal to or less than 3 kW would not require a Renewable Energy Approval, and are therefore not subject to the requirements identified in this section. It is also proposed that proponents of these facilities will be exempt from having to obtain a certificate of approval under section 9 of the *Environmental Protection Act*. It is proposed that all other land-based wind energy generation facilities would require a Renewable Energy Approval.

**Noise Setbacks**

It is proposed that wind turbine energy projects be subject to a mandatory minimum setback of 550 metres from the closest Point of Reception.

In addition to this minimum setback, all projects would be required to meet noise setbacks based on the following matrix:

Number of Wind Turbines	Setback in metres (m) from closest Point of Reception corresponding to wind turbine Sound Power Levels in decibels (dBA)				
	102 dBA	103 - 104 dBA	105 dBA	106 - 107 dBA	> 107 dBA
1 – 5 turbines	550 m	600 m	850 m	950 m	Noise study required
6 - 10 turbines	650 m	700 m	1000 m	1200 m	
11 - 25 turbines	750 m	850 m	1250 m	1500 m	
26+ turbines	Noise study required				

Proposed setbacks in the noise matrix are consistent with the Ministry of the Environment’s *Noise Guidelines for Wind Farms* (October 2008) and the noise level limit of 40 dBA at the Point of Reception regardless of wind speed.

In order to account for the combined contribution from neighbouring wind farms when determining the setback, it is proposed that the number of turbines considered for determining the appropriate setback include all wind turbines found within the 3 km radius of the Point of Reception, including those turbines by other proponents existing or planned.

“Setback” refers to the distance in metres separating the centre of a structure, referred to as a Point of Reception in the Ministry of the Environment’s *Noise Guidelines for Wind Farms* (October 2008), and the base of the closest wind turbine. The noise emission level of a wind turbine must be the guaranteed values of the Sound Power Level corresponding to 95% rated power output. Should a Sound Power Level rating for a turbine fall between categories, it should be rounded up to the nearest whole number.

It is proposed that if a proposed wind energy generation facility has 26 or more turbines or has turbines with sound power level rating of more than 107 dBA, the proponent shall submit a noise study to the Ministry of the Environment consistent with Ministry of the Environment’s *Noise Guidelines for Wind Farms* (October 2008).

It is proposed that if the wind turbine project proponent should be interested in obtaining a lower setback than indicated for turbines it would have the option to complete a site-specific noise study consistent with the Ministry of the Environment’s *Noise Guidelines for Wind Farms* (October 2008) and the noise level limit of 40 dBA at the nearest Point of Reception. Under no circumstances can a site-specific study result in a setback lower than the minimum 550 metres.

It is proposed that the proponent will provide a frequency chart from the turbine manufacturer showing all tones generated by the turbine.

#### **Small-Scale Wind Turbine Noise Requirements**

It is also proposed that wind energy generation facilities with a name plate capacity greater than 3 kW with a sound power level rating less than 102 dBA will be required to submit the following information to allow the Ministry of the Environment to evaluate impacts: make, model, and year of turbine; turbine height; description of setting (e.g. rural, urban); proposed distance to nearest Point of Reception; and acoustic emissions of the wind turbine.

#### **Transformer Substation Noise Setbacks**

It is proposed that transformer substations serving the wind turbine project without noise abatement are to be located at least 1000 metres from the nearest Point of Reception, and transformer substations with an acoustic barrier at least 500 metres from the nearest Point of Reception. It is proposed that the acoustic barrier should break the line of sight from the transformer to Points of Reception – a solid barrier with a surface density at least 20 kg/m<sup>2</sup> (kilograms per square metre).

It is also proposed that if the wind turbine project proponent should be interested in obtaining a lower setback than indicated for transformer substations it would have the option to complete a site-specific noise study consistent with the Ministry of the Environment’s *NPC-233 Noise Guideline* and the noise level limit of 40 dBA at the Point of Reception.

#### **Setbacks from Roads, Railways, and Property Lines**

It is also proposed that wind turbines must be setback a distance equal to or more than the turbine hub height plus blade length from all roads, railways, and property side and rear lot lines.

### **Bird and Bat Studies**

It is proposed that land-based wind turbine projects must collect preliminary information about bird and bat habitat, determine and document site sensitivity through field investigation and identify proposed mitigation measures that may be required to address these impacts, as part of the Environmental Impact Assessment on natural heritage (see Part III, section 5).

### **Decommissioning Plan**

It is proposed that proponents will be required to submit a decommissioning plan, which would address, among other matters, procedures for equipment/building, dismantling and demolition, site restoration and final residue disposal.

### **Conditions of Approval**

It is proposed that proponents would be required to monitor and address any perceptible infrasound (vibration) or low frequency noise as a condition of the Renewable Energy Approval. The Ministry of the Environment intends to develop technical guidance on the monitoring of infrasound and low frequency noise to assist proponents in this.

It is anticipated that in appropriate circumstances shut-down conditions for land-based wind energy facilities may also be addressed through conditions of approval.

## ***B. Off-Shore Wind Turbine Facilities***

The Ministry of the Environment and Ministry of Natural Resources are working together to develop future setbacks related to off-shore wind energy facilities that will address natural heritage, coastal impacts, and noise emissions.

### **Noise Requirements**

It is proposed that for off-shore wind turbine facilities, the proponent shall submit a noise study that would take into account the unique noise conditions created by off-shore development.

### **Natural Heritage and Wildlife**

It is proposed that sections 5 and 6 of Part III of this document do not apply to off-shore wind energy facilities as all proposed off-shore wind facilities will require review and approval by the Ministry of Natural Resources for access to Crown land, and therefore natural heritage, coastal, and bird and bat studies will be reviewed as part of the Ministry of Natural Resources' requirements. Should studies with a similar scope be required as part of a federal Environmental Assessment, where appropriate the study requirements for provincial review will be harmonized with federal Environmental Assessment requirements.

### **Decommissioning Plan**

It is proposed that proponents will be required to submit a decommissioning plan, which would address, among other matters, procedures for equipment/building, dismantling and demolition, site restoration and final residue disposal.



### **C. Biogas Facilities (Anaerobic Digesters)**

It is proposed that proponents of anaerobic digesters that generate electricity located on a farm and that are subject to regulatory requirements for on-farm manure treatment under O. Reg. 267/03 of the *Nutrient Management Act, 2002*, and therefore subject to existing minimum distance separation requirements established by the Ministry of Agriculture, Food and Rural Affairs would not require a Renewable Energy Approval, and are therefore not subject to the requirements in this section..

#### **Farm-Based Anaerobic Digesters that Process Agricultural Material**

It is proposed that proponents using agricultural material other than only manure in anaerobic digestion to generate electricity (e.g., greenhouses, cash croppers, etc.) would be required to obtain a Renewable Energy Approval.

It is proposed that for facilities with a name plate capacity less than 500 kW, any biomass storage areas, gas engines, flares, and anaerobic digesters must meet a setback of 250 metres from the nearest Point of Reception.

This setback can be reduced to 125 metres if the Ministry of the Environment is satisfied that these facilities can be designed and operated according to the following best management practices, or an equivalent alternative design by a professional engineer is in place to address odours:

- Gas storage cover with a design permeability of  $<500 \text{ cm}^3/\text{m}^2/\text{day}/\text{bar}$ ; and
- Minimum average monthly input of 5% manure; and
- Digestate storage and flare sited at a distance equivalent to Minimum Distance Separation (MDS) calculation for digestate storages.

Facilities with a name plate capacity greater than 500 kW of electrical production must meet a setback of 250 metres as well as having plans to ensure the best management practices are met, or an equivalent alternative designed by a professional engineer is in place to address odours.

It is proposed that if these facilities are unable to meet the setback, they would be able to site closer, if the proponent of them can satisfy the Ministry of the Environment using appropriate studies, that operations at the facility will not cause an adverse effect.

These studies must include:

- **Emission Summary and Dispersion Modelling (ESDM) Report for Air Contaminants** to determine compliance with existing air quality standards at points of impingement (as defined in O. Reg. 419/05 under the *Environmental Protection Act*)
- **Noise Study** to determine if modelling is consistent with existing MOE noise guidelines (Guidelines NPC-232 or NPC-205)
- **Odour Study** to determine anticipated impacts of odour at points of impingement and mitigation techniques.

It is anticipated that in appropriate circumstances, requirements related to storage times of biomass on site, utilization rates of biomass and associated record keeping – including records on any environmental issues, may be addressed through conditions on the approval.

**Farm-based Anaerobic Digestion Facilities Accepting Regulated Waste**

It is proposed that a Renewable Energy Approval would be required for agriculture operations that are generating electricity from anaerobic digestion and are accepting wastes that require a certificate of approval under Part V of the *Environmental Protection Act*.

It is proposed that for these facilities, any biomass storage areas, gas engines, flares, and anaerobic digesters must meet a setback of 250 metres from the nearest Point of Reception.

This setback can be reduced to 125 metres if the Ministry of the Environment is satisfied that these facilities can be designed and operated according to the following best management practices, or an equivalent alternative design by a professional engineer is in place to address odours:

- Gas storage cover with a design permeability of  $<500 \text{ cm}^3/\text{m}^2/\text{day}/\text{bar}$ ; and
- Minimum average monthly input of 5% manure; and
- Digestate storage and flare sited at a distance equivalent to Minimum Distance Separation (MDS) calculation for digestate storages.

Facilities with a name plate capacity greater than 500 kW must meet a setback of 250 metres as well as having plans to ensure the best management practices are met, or an equivalent alternative design by a professional engineer is in place to address odours. It is proposed that if these facilities are unable to meet the setback, they would be able to site closer, if the proponent of them can satisfy the Ministry of the Environment using appropriate studies, that operations at the facility will not cause an adverse effect.

These studies must include:

- **Emission Summary and Dispersion Modelling (ESDM) Report for Air Contaminants** to determine compliance with existing air quality standards at points of impingement (as defined in O. Reg. 419/05 under the *Environmental Protection Act*)
- **Noise Study** to determine if modelling is consistent with existing MOE noise guidelines (Guidelines NPC-232 or NPC-205)
- **Odour Study** to determine anticipated impacts of odour at points of impingement and mitigation techniques

In the future, the Ministry of the Environment intends to develop technical guidance material on conducting an odour study.

In addition to the setbacks, it is proposed that these facilities must also submit the following:

- **Design and Operations Report** – addressing, among other matters, a detailed description of anticipated processes at the facility, potential environmental impacts and quality and quantity of biomass at the site.
- **Effluent Management Plan** – describing anticipated effluent produced on-site and methods to manage the effluent.
- **Decommissioning Plan** – addressing, among other matters, procedures for equipment/building, dismantling and demolition, site restoration and final residue disposal.

In addition to the setbacks, if the facility is not a “Phased-In Agricultural Operation” under the *Nutrient Management Act, 2002* it is proposed that these facilities must also submit the following:

- **Surface Water Assessment** – which would include, among others, an assessment of surface water features, drainage, erosion and anticipated impacts on surface water features.
- **Hydro-Geologic Assessment** – which would include, among others, an assessment of subsurface features and anticipated impacts on groundwater, or the facility must demonstrate that storage and digester tanks meet the construction standards for manure storages under the *Nutrient Management Act, 2002*

It is proposed that as these facilities are accepting, storing and processing biomass on-site that would be considered waste and regulated under Part V of the *Environmental Protection Act*, then the facility must provide a financial assurance estimate related to the removal of waste from the site. The financial assurance shall cover the cost of management for all of off-farm anaerobic digestion input materials stored on the site prior to addition to the biogas system. For biogas systems where less than 50% of the input materials are farm based material (such as manure or other agricultural wastes) the financial assurance shall also be sufficient to cover the management costs of the digester vessel contents and anaerobic digestion output materials as well. Financial assurance is required to ensure that sufficient funds are available for future clean-up and remediation of the site. Financial assurance must be calculated in accordance with the methodology in the Ministry of the Environment’s Financial Assurance Guideline (Guideline F-15).

It is anticipated that in appropriate circumstances, requirements related to analysis of metals for off-farm anaerobic digestion materials, storage times (i.e., residence times) of biomass on site, operation and maintenance requirements, utilization rates of biomass and associated record keeping – including records on any environmental issues, may be addressed through conditions on the approval.

### **Non-Farm Based Anaerobic Digestion Facilities**

It is proposed that a Renewable Energy Approval would also be required for non-agriculture-based operations that are generating electricity from anaerobic digestion.

It is proposed that these facilities would not be subject to a setback; however, proponents of these facilities would have to satisfy the Ministry of the Environment, that operations at the facility will not cause an adverse effect. These facilities would be required to complete the following:

- **Emission Summary and Dispersion Modelling (ESDM) Report for Air Contaminants** to determine compliance with existing air quality standards at points of impingement (as defined in O. Reg. 419/05 under the *Environmental Protection Act*)
- **Noise Study** to determine if modelling is consistent with existing MOE noise guidelines (Guidelines NPC-232 or NPC-205)
- **Odour Study** to determine anticipated impacts of odour at points of impingement and mitigation techniques

- **Design and Operations Plan** – which would address, among other matters, a detailed description of processes at the facility, potential environmental impacts and quality and quantity of biomass at the site.
- **Surface Water Assessment** – which would address, among other matters, an assessment of surface water features, drainage, erosion and anticipated impacts on surface water features.
- **Hydro-Geologic Assessment** – which would include, among others, an assessment of subsurface features and anticipated impacts on groundwater; or the facility must demonstrate that storage and digester tanks meet the construction standards for manure storages under the *Nutrient Management Act, 2002*
- **Effluent Management Plan** – which would include description of effluent produced on-site and methods to manage the effluent.
- **Decommissioning Plan** – which would address, among other matters, procedures for equipment/building, dismantling and demolition, site restoration and final residue disposal.

Operationally, these facilities must have plans to ensure the following best management practices are met, or an equivalent alternative designed by an engineer is in place to address odours:

- Gas storage cover with a design permeability of  $<500 \text{ cm}^3/\text{m}^2/\text{day}/\text{bar}$
- High efficiency flare system and,

It is proposed that where these facilities are accepting, storing or processing biomass on-site that would be considered waste and regulated under Part V of the *Environmental Protection Act*, then the facility must provide a financial assurance estimate related to the removal and disposal of waste from the site. Financial assurance is required to ensure that sufficient funds are available for future clean-up and remediation of the site. Financial assurance must be calculated in accordance with the methodology in the Ministry of the Environment's Financial Assurance Guideline (Guideline F-15).

It is anticipated that in appropriate circumstances, requirements related to analysis of metals for off-farm anaerobic digestion materials, on-site storage times of biomass, utilization rates of biomass and associated record keeping – including records on any environmental issues, may be addressed through conditions on the approval.

#### ***D. Biomass Facilities (Thermal Treatment)***

##### **Thermal Treatment of Woodwaste**

It is proposed that all facilities that are thermally treating woodwaste to generate electricity will be subject to a Renewable Energy Approval. For the purposes of this regulation, it is proposed that the definition of woodwaste is the same as that found in Regulation 347 under the *Environmental Protection Act*.

It is proposed that facilities thermally treating woodwaste would not be subject to a setback. Proponents of these facilities would have to complete the following:

- **Surface Water Assessment** – which would address, among other matters, an assessment of surface water features, drainage, erosion and impacts on surface water features.
- **Effluent Management Plan** – which would include description of effluent produced on-site and methods to manage the effluent.
- **Decommissioning Plan** – which would address, among other matters, procedures for equipment/building, dismantling and demolition, site restoration and final residue disposal.

In addition, proponents of industrial or commercial based facilities (i.e., non-agricultural based) would be required to complete the following:

- **Emission Summary and Dispersion Modelling (ESDM) Report for Air Contaminants** to determine compliance with existing air quality standards at points of impingement (as defined in O. Reg. 419/05 under the *Environmental Protection Act*)
- **Noise Study** to determine if modelling is consistent with existing MOE noise guidelines (Guidelines NPC-232 or NPC-205)

It is anticipated that in appropriate circumstances, requirements related to combustor operations (e.g., combustion temperatures, fuel requirements, start-ups, shut-downs, etc.), storage times of biomass on site, utilization rates of biomass and associated record keeping – including records on any environmental issues, may be addressed through conditions on the approval.

#### **On-Farm Thermal Treatment of Mixed Biomass**

It is proposed that all facilities that are thermally treating mixed biomass (i.e., non-woodwaste biomass, alone or in combination with woodwaste) to generate electricity will be subject to a Renewable Energy Approval.

It is proposed that agricultural-based facilities that are thermally treating mixed biomass must meet a setback of 250 metres from biomass storage areas to the nearest Point of Reception.

It is proposed that if these agriculture-based facilities are unable to meet the setback, they would be able to site closer, if they are able to satisfy the Ministry of the Environment using appropriate studies, that operations at the facility will not cause an adverse effect. These studies must include:

- **Emission Summary and Dispersion Modelling (ESDM) Report for Air Contaminants** to determine compliance with existing air quality standards at points of impingement (as defined in O. Reg. 419/05 under the *Environmental Protection Act*)
- **Noise Study** to determine if modelling is consistent with existing MOE noise guidelines (Guidelines NPC-232 or NPC-205)
- **Odour Study** to determine anticipated impacts of odour at points of impingement and mitigation techniques

In addition, proponents of agricultural-based facilities thermally treating mixed biomass would have to complete the following:

- **Surface Water Assessment** – which would address, among other matters, an assessment of surface water features, drainage, erosion and impacts on surface water features.
- **Design and Operations Plan** – which would address, among other matters, a detailed description of processes at the facility, potential environmental impacts and quality and quantity of biomass at the site.
- **Hydro-Geologic Assessment** – which would address, among other matters, an assessment of subsurface features and impacts on ground water.
- **Effluent Management Plan** – which would include description of effluent produced on-site and methods to manage the effluent.
- **Decommissioning Plan** – which would address, among other matters, procedures for equipment/building, dismantling and demolition, site restoration and final residue disposal.

### **Non-Farm Thermal Treatment of Mixed Biomass**

Industrial or commercial based facilities (i.e., non-agriculture-based facilities) would not be subject to a setback and instead proponents of these facilities would have to satisfy the Ministry of the Environment that operations at the facility will not cause an adverse effect. Proponents of these facilities would be required to complete the following:

- **Emission Summary and Dispersion Modelling (ESDM) Report for Air Contaminants** to determine compliance with existing air quality standards at points of impingement (as defined in O. Reg. 419/05 under the *Environmental Protection Act*)
- **Noise Study** to determine if modelling is consistent with existing MOE noise guidelines (Guidelines NPC-232 or NPC-205)
- **Odour Study** to determine anticipated impacts of odour at points of impingement and mitigation techniques

In addition, proponents of non agricultural-based facilities thermally treating mixed biomass would have to complete the following:

- **Surface Water Assessment** – which would address, among other matters, an assessment of surface water features, drainage, erosion and impacts on surface water features.
- **Design and Operations Plan** – which would address, among other matters, a detailed description of processes at the facility, potential environmental impacts and quality and quantity of biomass at the site.
- **Hydro-Geologic Assessment** – which would address, among other matters, an assessment of subsurface features and impacts on ground water.
- **Effluent Management Plan** – which would include description of effluent produced on-site and methods to manage the effluent.
- **Decommissioning Plan** – which would address, among other matters, procedures for equipment/building, dismantling and demolition, site restoration and final residue disposal.

It is proposed that if any facility is accepting, storing and processing biomass on-site that would be considered waste regulated under Part V of the *Environmental Protection Act*, then the facility must provide a financial assurance estimate related to the removal of and disposal of waste from the site. Financial assurance is required to ensure that sufficient funds are available for future clean-up and remediation of the site. Financial

assurance must be calculated in accordance with the methodology in the Ministry of the Environment's *Financial Assurance Guideline* (Guideline F-15).

It is anticipated that in appropriate circumstances, requirements related to combustor operations (e.g., combustion temperatures, fuel requirements, start-ups, shut-downs, etc.), storage times of biomass on site, utilization rates of biomass and associated record keeping – including records on any environmental issues, may be addressed through conditions on the approval.

### ***E. Landfill Gas Facilities***

It is proposed that all facilities that generate electricity from landfill gas will be subject to a Renewable Energy Approval. Where the generation facility is located at a landfill site, it is proposed that in addition to the generation facility itself, the works used to collect the landfill gas will be approved under the Renewable Energy Approval. All other operations at the landfill (e.g., receipt of waste, landfilling operations, etc.) will still be subject to existing Part V approvals under the *Environmental Protection Act*.

It is proposed that these facilities will not be subject to any additional setback requirements not already established for the landfill, and instead the proponent of such a facility would have to satisfy the Ministry of the Environment that operations at the facility will not cause an adverse effect. Proponents of these facilities would be required to complete the following:

- **Emission Summary and Dispersion Modelling (ESDM) Report for Air Contaminants** to determine compliance with existing air quality standards at points of impingement (as defined in O. Reg. 419/05 under the *Environmental Protection Act*)
- **Noise Study** to determine if modelling is consistent with existing MOE noise guidelines (Guidelines NPC-232 or NPC-205)

### ***F. Hydro Electric Facilities***

It is proposed that the following small scale water power energy generation facilities do not require a Renewable Energy Approval.

- Hydro power generation facility with a head less than 2 metres; and,
- Hydro kinetic power generation.

All other water power energy generation facilities would require a Renewable Energy Approval. In addition, large scale water power energy generation facilities with a name plate capacity equal to or greater than 200 MW would be subject to the requirements of an individual Environmental Assessment.

It is proposed that the proponent, of a water power energy generation facilities with a name plate capacity less than 200 MW, that requires a Renewable Energy Approval submit the following information as part of their application:

- Identification of the watercourse,
- A statement as to whether the proposed facility relies on a existing structure or new structure,
- A statement as to whether the proposed facility is on a managed or unmanaged waterway,

- Scaled diagrams and explanatory notes that approximate the location of:
  - the dam, any area to be flooded
  - the land of persons other than the applicant that may be affected by the flooding

It is anticipated that operation of equipment that have associated water takings, waste management activities, and emissions to air or land may be addressed through conditions of approval.

### **Water Taking**

For a proposed facility that would take more than 50,000 litres of water on any day by any means; the application must include:

- A description of the period and duration of the water takings associated with the Facility life cycle including the construction phases.
- A description of the water taking needs including rates, amounts and time periods and including an assessment of availability of water to meet demand.
- An assessment and documentation of the potential for interference with other users.

A Director who is considering an application for a Renewable Energy Approval will make sure that Ontario's obligations under the Great Lakes Charter with respect to the application are complied with.

### **Waste Management Activity**

Should the proposed facility have associated with it any waste management or waste disposal activity or expansion of an activity, the proponent may be required to submit

- **Design and Operations Plan** – which would address, among other matters, a detailed description of processes at the facility, potential environmental impacts and quality and quantity of waste being managed.
- **Surface Water Assessment** – which would address, among other matters, an assessment of surface water features, drainage, erosion and impacts on surface water features.
- **Hydro-Geologic Assessment** – which address, among other matters, an assessment of subsurface features and impacts on ground water.
- **Effluent Management Plan** – which would include a description of effluent produced on-site and methods to manage the effluent.

### **Emissions to Air or Land**

Should the proposed Hydro electric facility have associated with it any associated or ancillary equipment, systems and technologies that may discharge a contaminant into the air or land, the following studies will be required:

- **Emission Summary and Dispersion Modelling (ESDM) Report for Air Contaminants** to determine compliance with existing air quality standards at points of impingement (as defined in O. Reg. 419/05 under the Environmental Protection Act)
- **Noise Study** to determine if modelling is consistent with existing MOE noise guidelines (Guidelines NPC-232 or NPC-205)



### **Large Scale Water Power Projects**

For a hydro power project with a name plate capacity equal to or greater than 200 MW or more, it is anticipated that the proponent will incorporate as appropriate the requirements of the Renewable Energy Approval as part of its individual Environmental Assessment. It is anticipated that if these requirements are incorporated in the individual Environmental Assessment, the same requirements will not be duplicated in the course of an application to obtain a Renewable Energy Approval.

### **G. Solar Photovoltaic Facilities**

It is proposed that ground-mounted, rooftop and wall-mounted solar power facilities with a name plate capacity of 10 kW or less, do not require a Renewable Energy Approval, and are therefore not subject to the requirements in this section. It is also proposed that proponents of these facilities will be exempt from having to obtain a certificate of approval under section 9 of the *Environmental Protection Act*. Ground mounted, rooftop, and wall-mounted solar power facilities with a name plate capacity greater than 10 kW would require a Renewable Energy Approval.

### **Decommissioning Plan**

It is proposed that proponents will be required to submit a decommissioning plan, which would address, among other matters, procedures for equipment/building, dismantling and demolition, site restoration and final residue disposal.

It is proposed that Financial Assurance will be required for future clean-up and remediation of the site. Consideration will be given for the recycling value of the photovoltaic components. The Ministry of the Environment will develop a streamlined approach to this calculation.

### **Noise Requirements**

It is proposed that all solar photovoltaic facilities (e.g. ground mounted, rooftop, and wall-mounted) solar projects with a name plate capacity greater than 10 kW would have to submit a study demonstrating noise levels at the nearest Point of Reception are consistent with the Ministry of the Environment's noise guideline (NPC-232 or NPC-205 Noise Guideline).



## Policy Proposal Notice:

Title:  
Approval and Permitting Requirements Document for Renewable Energy Projects

EBR Registry Number: 010-6708

Ministry:  
Ministry of Natural Resources  
Date Proposal loaded to the  
Registry:  
June 09, 2009

Keyword(s): [Electricity](#) | [Fish and Wildlife](#) | [Health](#) | [Land](#) | [Water](#)

Comment Period: 45 days: submissions may be made between June 09, 2009 and July 24, 2009.

## Description of Policy:

The Green Energy and Green Economy Act, 2009, was passed in the Legislature on May 14, 2009. The Act places a priority on expanding Ontario's use of clean and renewable sources of energy including wind, water, solar, biomass and biogas power. Developing these renewable resources is a cornerstone of this province's future prosperity.

The Ministries of Natural Resources and the Environment issue approvals for renewable energy projects and are proposing an improved approval process to ensure continued protection of human health and the environment. The ministries aim to administer their processes in a coordinated fashion with a view to integrating all provincial ministry requirements for the review and approval of renewable energy projects. A coordinated process will eliminate duplication, provide certainty and meet the requirements set out under legislation administered by various ministries.

This proposed requirements document outlines the Ministry of Natural Resources' requirements for review and approval of renewable energy projects as per section 13.2 of the Ministry of Natural Resources Act. The proposed requirements document covers all aspects of renewable energy development relevant to the ministry's core business. Its aim is to provide as much up-front clarity as possible on requirements, while ensuring environmental protection and public health and safety.

The Ministry of Environment (MOE) has also posted information for public review regarding renewable energy project requirements under the Environmental Protection Act. It can be accessed by entering Registry Number 010-6516.

## Purpose of Policy:

The purpose of this notice is to inform the public of the opportunity to comment on the Ministry of Natural Resources' proposed Approval and Permitting Requirements Document for Renewable Energy Projects.

## Other Information:

In support of this proposed requirements document, the Ministry of Natural Resources may also develop technical guidance documents to help proponents design renewable energy projects that ensure protection of Ontario's natural resources. Comments received on this proposed Approval and Permitting Requirements Document for Renewable Energy Projects may inform the shaping of future documents.

## Contact:

All comments on this proposal must be directed to:

Sue Jones  
Technical Officer  
Ministry of Natural Resources  
Natural Resource Management  
Division  
Lands and Waters Branch  
300 Water Street  
Floor 5  
PO Box 7000  
Peterborough Ontario  
K9J 8M5  
Phone: (705) 755-5320  
Fax: (705) 755-1206

To submit a comment online,  
click the submit button  
below:

The proposed requirements document can be accessed on the web at:

[www.mnr.gov.on.ca/272327.pdf](http://www.mnr.gov.on.ca/272327.pdf) (English version)

[www.mnr.gov.on.ca/272328.pdf](http://www.mnr.gov.on.ca/272328.pdf) (French version)

Additional background information on the Green Energy and Green Economy Act, 2009, is available at the following websites:

Green Energy Act website: <http://www.mei.gov.on.ca/english/energy/gea/>

Ministry of Energy and Infrastructure website: <http://www.mei.gov.on.ca/>

Ministry of the Environment website: <http://www.ene.gov.on.ca/>

#### Public Consultation:

This proposal has been posted for a 45 day public review and comment period starting June 09, 2009. If you have any questions, or would like to submit your comments, please do so by July 24, 2009 to the individual listed under "Contact". Additionally, you may submit your comments on-line.

All comments received prior to July 24, 2009 will be considered as part of the decision-making process by the Ministry of Natural Resources if they are submitted in writing or electronically using the form provided in this notice and reference EBR Registry number 010-6708.

Please Note: All comments and submissions received will become part of the public record. You will not receive a formal response to your comment, however, relevant comments received as part of the public participation process for this proposal will be considered by the decision maker for this proposal.

#### Other Public Consultation Opportunities:

Public information meetings will be held in June, 2009 in locations across Ontario. For more information on the consultation sessions, please visit the Ministry of the Environment at <http://www.ene.gov.on.ca/en/business/green-energy/index.php>

For further information, please contact 1-877-354-0707.

---

The materials on this web site are protected by Crown copyright. You may copy and re-distribute any of the Environmental Bill of Rights information on this web site provided that the contents remain unchanged and the source of the contents is clearly referenced. You are not permitted to alter or add to the contents.

[ONTARIO HOME](#) | [CONTACTS](#) | [HELP](#) | [SITEMAP](#) | [FRANÇAIS](#)



This site is maintained by the Government of Ontario, Canada.

[PRIVACY](#) | [IMPORTANT NOTICES](#)

Copyright information: © [Queen's Printer for Ontario, 1994-2009](#)



## **Ontario Ministry of Natural Resources**

---

### **Draft Approval and Permitting Requirements Document for Renewable Energy Projects**

## Contents

<b>Introduction .....</b>	<b>4</b>
<b>1 The role of the Ministry of Natural Resources .....</b>	<b>4</b>
1.1 Relevant statutes .....	5
<b>2 The Approval and Permitting Requirements Document for Renewable Energy Projects.....</b>	<b>7</b>
2.1 Projects subject to this document.....	7
2.2 Reduced requirements .....	8
<b>3 The complete submission process overview .....</b>	<b>10</b>
3.1 Renewable Energy Facilitation Office .....	10
The Renewable Energy Facilitation Office (REFO) will assist project proponents at any stage of the approvals cycle in navigating the various processes and requirements associated with the development of renewable energy projects. The Office will provide information and liaison with or connection to appropriate staff and subject experts in other ministries as well as inform proponents of potential requirements imposed by the Government of Canada. The Office will also develop and provide various tools and resources for renewable energy project proponents. While not a mandatory step, proponents are encouraged to work with the REFO. ....	10
3.2 Preparing a complete submission .....	10
3.3 Submitting a complete submission and agency review .....	10
3.4 Issuance of approvals .....	11
3.5 Disposition of Crown land .....	12
<b>4 Requirements for all renewable energy testing projects proposed on Crown Land .....</b>	<b>12</b>
4.1 Testing projects where no construction is required to gain access .....	13
4.2 Testing projects where construction of new or modifications to existing access is required .....	14
<b>5 Requirements for all renewable energy projects proposed on Crown land .....</b>	<b>14</b>
5.1 Public notice and community consultation .....	15
5.2 Aboriginal consultation .....	16
5.3 Project description.....	16
5.4 Site plan .....	17
5.5 Natural resource assessment and actions to be taken.....	17
5.6 Addressing other interests on Crown land .....	21
5.7 Construction plan .....	21

5.8 Public safety plan .....	22
5.9 Post-construction monitoring plan .....	22
5.10 Decommissioning plan .....	23
<b>6 Additional technology-specific requirements for renewable energy projects proposed on Crown land .....</b>	<b>23</b>
6.1 On-shore windpower .....	23
6.2 Off-shore windpower .....	24
6.3 Biomass, biogas and biofuels.....	25
6.4 Waterpower projects .....	26
<b>7 Other potential requirements for renewable energy projects proposed on Crown land .....</b>	<b>34</b>
7.1 Aggregate extraction requirements .....	35
7.2 Harvesting Crown-owned forest resources requirements .....	36
7.3 Wildfire prevention and preparedness requirements.....	37
7.4 Projects proposed in Provincial Parks or Conservation Reserves.....	38
7.5 Projects proposed in natural hazard lands (not regulated by a Conservation Authority).....	40
7.6 Projects proposed in an area under a Forest Resource License or a Sustainable Forest License.....	42
<b>8 Requirements for all renewable energy projects proposed on private land.....</b>	<b>43</b>
8.1 Requirements for renewable energy testing projects proposed on private land.....	43
8.2 Requirements for all renewable energy projects proposed on private land.....	43
8.3 Other potential requirements for renewable energy projects proposed on private land .....	44
<b>9 Appeals and inquiries .....</b>	<b>44</b>
9.1 Public Lands Act work permit appeal process.....	44
9.2 Conservation Authority appeals .....	44
9.3 Lakes and Rivers Improvement Act inquiries .....	45
<b>10 Amendments to plans prior to commissioning .....</b>	<b>45</b>
<b>11 Expansions, modifications and redevelopments of commissioned sites.....</b>	<b>45</b>
<b>12 Transition Provisions.....</b>	<b>46</b>
<b>Appendix A Definitions.....</b>	<b>47</b>
<b>Appendix B Requirements of the Endangered Species Act, 2007.....</b>	<b>50</b>
<b>Appendix C Conservation Authorities.....</b>	<b>58</b>

<b>Appendix D</b>	<b>Niagara Escarpment Plan Area .....</b>	<b>58</b>
<b>Appendix E</b>	<b>Reference sources .....</b>	<b>59</b>
<b>Appendix F</b>	<b>Federal approvals.....</b>	<b>64</b>

## **Introduction**

With the Green Energy and Green Economy Act, 2009, the Province of Ontario has placed a priority on expanding Ontario's use of clean and renewable sources of energy such as wind, water, solar, biomass, biogas and biofuels. Developing these substantial resources is a cornerstone of this province's future prosperity and its commitment to protecting the environment.

Renewable energy projects ("renewable energy project" and other terms are defined in Appendix A) provide environmental and economic benefits at the local, provincial and global level. They reduce threats to our biodiversity from the impacts of climate change. They also create new opportunities for manufacturing and resource development activities. Finally, renewable energy generation boosts the long-term reliability and adequacy of Ontario's electricity system by putting in place sustainable sources of energy.

A key element of the Green Energy and Green Economy Act is a new streamlined provincial approval process for renewable energy projects, based on the concept of a complete submission. The complete submission integrates into a coordinated process all provincial Ministry requirements for the review and decision making on proposed renewable energy facilities. While this approach provides a single process, it addresses the legislative requirements set out by various Ministries.

This requirements document outlines the Ministry of Natural Resources' (hereafter referred to as "the Ministry") requirements for the application, review and decisions regarding the approval of a renewable energy project. Other Ministry requirements are established through a regulation under the Environmental Protection Act, for which the Ministry of the Environment is responsible.

In addition, a renewable energy project may require approval from other agencies or another level of government, such as the federal government. It is the responsibility of the proponent to ensure that those other requirements are met as this requirements document does not deal with those requirements.

## **1 The role of the Ministry of Natural Resources**

The Ministry's mandated activities include the management of Ontario's provincial parks, forests, fisheries, wildlife and mineral aggregates, and the Crown lands and waters that together make up approximately 87 per cent of the province.



## 1.1 Relevant statutes

The Ministry manages Ontario's natural resources under the authority of a number of statutes. Those most relevant to renewable energy projects include the:

**Ministry of Natural Resources Act.** This Act authorizes the Minister to among other things, establish programs to stimulate the development and management of Ontario's natural resources. The Act establishes that the Minister may require that a proponent of a renewable energy project provide to the Minister the information or studies considered necessary before issuing a permit or approval under an Act for which the Minister is responsible.

**Public Lands Act.** This Act gives the Minister specific powers over the management, use and disposition of provincial public lands in Ontario. It provides for the issuance of licences, permits, leases and sale and patents for the use of these lands, including most lands under navigable rivers and lakes.

**Lakes and Rivers Improvement Act.** This Act provides for the management, protection, preservation and use of Ontario's lakes and rivers, the protection of private and public rights, and the protection of persons, property, natural resources and natural amenities. It provides for the issuance of location and plans and specification approval to ensure that dams are suitably located, constructed, operated and maintained with respect to new dams and alterations, repairs or improvements of existing dams.

**Fish and Wildlife Conservation Act.** This Act provides the Ministry with authority to protect and manage wildlife including furbearing mammals, game wildlife, and specially protected wildlife species. Species at risk may be designated as "specially protected" and listed in the appropriate FWCA Schedule (6 to 11). This Act also implements the delegation by the federal government to the provincial minister to issue fishing licences. The licences are established by a regulation under the FWCA, but they are required by the federal Fisheries Act if a person proposes to catch fish by any method.

**Endangered Species Act, 2007.** The purposes of this Act are to identify species at risk based on the best available scientific information, to protect species that are at risk and their habitats, to promote the recovery of species that are at risk, and to promote stewardship activities to assist in the protection and recovery of species that are at risk. The Act allows for some flexibility in balancing social, economic, and cultural considerations with the protection and recovery of Ontario's species at risk and their habitats. This enables the Ministry of Natural Resources, using various tools, to authorize activities that would otherwise be prohibited by sections 9 (species protection) or 10 (habitat protection) of the Act.

**Crown Forest Sustainability Act.** The purposes of this Act are to provide for the sustainability of Crown forests and, in accordance with that objective, to manage Crown forests to meet social, economic and environmental needs of present and future generations.

**Forest Fires Prevention Act.** This Act provides the basis for preventing forest fires and ensuring public safety. It sets the “fire season” and provides for the issuance of permits, safety standards and measures governing the use of fire in the forests and establishes penalties to deter violators and careless users. It also provides powers to fire officers and allows the Ministry to restrict the use of fire when the fire danger is extreme, and implement Emergency Areas to restrict access to areas where public safety may be threatened by wildfires.

**Aggregate Resources Act.** The purposes of this Act are to: (a) to provide for the management of the aggregate resources of Ontario; (b) to control and regulate aggregate operations on Crown and private lands; (c) to require the rehabilitation of land from which aggregate has been excavated; and (d) to minimize negative effects on the environment in respect of aggregate operations.

**Oil, Gas and Salt Resources Act.** The purpose of this Act is to regulate the exploration, drilling and production of oil and gas; the storage of hydrocarbons in underground formations; and salt solution mining in Ontario. It provides for the issuance of licences and permits; industry regulations and technical standards for operations; oil, gas and salt resource conservation and stewardship; and also provides compliance and enforcement powers to ensure the protection of the public and environment from industry activities and works.

**Provincial Parks and Conservation Reserves Act.** The purpose of this Act is to protect a system of provincial parks and conservation reserves that includes ecosystems that are representative of all of Ontario’s natural regions, protects provincially significant elements of Ontario’s natural and cultural heritage, maintains biodiversity and provides opportunities for compatible, ecologically sustainable recreation.

**Conservation Authorities Act.** This Act, administered by the Ministry, provides for two or more municipalities within a common watershed to enter into partnership with the Province to establish a conservation authority for local resource management work. Under the Act, the objects of an authority are to establish and undertake, in the area over which it has jurisdiction, a program designed to further the conservation, restoration, development and management of natural resources other than gas, oil, coal and minerals. The Minister of Natural Resources has delegated regulatory authority to the boards of conservation authorities to issue permits related to natural hazards in conservation authority regulated area.

**Niagara Escarpment Planning and Development Act.** The purpose of this Act is to provide for the maintenance of the Niagara Escarpment and land in its vicinity substantially as a

continuous natural environment, and to ensure only such development occurs as is compatible with that natural environment.

The statutes listed in this Section, or others as applicable, and related regulations and policies may apply to renewable energy projects on provincial Crown land or elsewhere. References to these statutes are included in this requirements document where they are applicable.

The issuance of any approvals, authorizations, permits or licences under this requirements document does not relieve the individual or company from meeting the requirements of other agencies and applicable provincial or federal legislation. Renewable energy projects may also require additional information or approvals under other legislation, both during the complete submission stage and throughout the life of the operation.

## **2 The Approval and Permitting Requirements Document for Renewable Energy Projects**

In order for the Ministry to review and make decisions on a proposed renewable energy project, the proponent is required to undertake activities and submit information related to relevant permits, licences, authorizations and approvals. This Approval and Permitting Requirements Document for Renewable Energy Projects provides direction on those activities and information requirements for renewable energy projects on Crown land or that may involve resources for which the Ministry has a legislative responsibility on private lands (see Section 8 for requirements that may need to be fulfilled by the proponent for the Ministry to issue relevant permits and approvals for projects proposed on private land). This requirements document does not apply to projects on federal lands.

The foundation of this requirements document is based in legislation, regulations, policies, guidelines, and government and Ministry strategic directions. These source documents, as amended from time to time, provide additional information and direction to assist in fulfilling requirements.

### **2.1 Projects subject to this document**

Based on the definitions in Appendix A, projects subject to this requirements document are:

- related to renewable energy testing facilities, including:
  - testing devices, structures or works;
  - related infrastructure; and
  - the construction, installation, use, operation, changing or retiring of the testing facility.

- related to renewable energy generation facilities, including:
  - a facility that generates electricity from a renewable energy source;
  - associated or ancillary equipment, systems and technologies;
  - associated or ancillary infrastructure (such as access roads and distribution and transmission lines); and
  - the construction, installation, use, operation, changing or retiring of the renewable energy facility.

The project scope must include all applicable elements of a project.

This requirements document does not apply to projects subject to an Individual Environmental Assessment, including:

- a renewable energy generation facility that has a nameplate capacity of 200 megawatts or more and uses water power as its primary power source;
- an expansion of or change in a renewable energy generation facility that has a name plate capacity of less than 200 megawatts and that uses water power as its primary power source if the expansion or change would result in the renewable energy generation facility becoming a generation facility that has a name plate capacity of 200 megawatts or more and the expansion or change would increase the name plate capacity by 25 per cent or more.

## **2.2 Reduced requirements**

This requirements document establishes the scope of requirements that could apply to a renewable energy project. All requirements may not need to be fulfilled for all projects based on project type or anticipated site specific effects.

### **2.2.1 Reducing the scope of requirements**

The Ministry may reduce the scope of requirements established in this requirements document where the Ministry determines that specific requirements are unnecessary for the project and that the reduced scope of requirements will not have a negative effect on the natural environment or public health and safety or the reduced scope of requirements is permitted by law.

A proponent may request a reduction in the scope of requirements when they feel a specific requirement is unnecessary and that the reduction in the scope of requirements will not have a negative effect on the natural environment or public health and safety. The request and its rationale must be submitted in writing to the Ministry. The Ministry may accept, accept with conditions, or deny such requests.

## **2.2.2 Projects not subject to all requirements**

The following types of renewable energy projects may be subject to a lesser scope of requirements to address potential effects.

### Small-scale waterpower

Small-scale waterpower projects (e.g., in-stream kinetic or low head waterpower; as defined in Appendix A), will likely require a reduced scope of requirements a proponent should contact the Ministry to determine what legislation applies to their particular project (e.g., Lakes and Rivers Improvement Act, Public Lands Act, Endangered Species Act, 2007, etc.). Some proposals may require only an authorization under the Public Lands Act while others will need to complete the requirements as outlined for waterpower projects in this requirements document (as described in Sections 5 and 6).

### Windpower

For windpower projects that do not require a building permit under the Building Code Act and do not require a disposition of Crown land, including the bed of a lake or river, the requirements outlined in this requirements document do not apply, except in situations where the project has the potential to negatively affect species or habitat protected under the Endangered Species Act, 2007; in which case the project would be subject to the requirements outlined in Section 5.5.4 and Appendix B.

### Solar

Where a solar facility is being attached to an existing structure or does not require a building permit under the Building Code Act, and does not require a disposition of Crown land, the requirements outlined in this requirements document do not apply, except in situations where the project has the potential to negatively affect species or habitat protected under the Endangered Species Act, 2007; in which case the project would be subject to the requirements outlined in Section 5.5.4 and Appendix B.

### Biomass, biogas and biofuels

Where a biomass, biogas or biofuels facility is being located within an existing building on Crown land and does not require any new development or site alteration, and where the facility will not require a forest resource processing license under section 4 of the Crown Forest Sustainability Act as outlined in Section 6.3, the requirements outlined in this requirements document do not apply, except in situations where the project has the potential to negatively affect species or habitat protected under the Endangered Species Act, 2007; in which case the project would be subject to the requirements outlined in Section 5.5.4 and Appendix B.

## **3 The complete submission process overview**

### **3.1 Renewable Energy Facilitation Office**

The Renewable Energy Facilitation Office (REFO) will assist project proponents at any stage of the approvals cycle in navigating the various processes and requirements associated with the development of renewable energy projects. The Office will provide information and liaison with or connection to appropriate staff and subject experts in other ministries as well as inform proponents of potential requirements imposed by the Government of Canada. The Office will also develop and provide various tools and resources for renewable energy project proponents. While not a mandatory step, proponents are encouraged to work with the REFO.

### **3.2 Preparing a complete submission**

A complete submission for a renewable energy project will include all information required by all relevant provincial ministries. The Ministry's requirements are outlined in this requirements document and all activities and information must be conducted and prepared in accordance with this requirements document.

The Ministry has policies, procedures, guidelines, best practices, and other sources of relevant information that may direct or assist a proponent on how requirements must or should be fulfilled. These are provided in Appendix E, and where appropriate, are specifically referenced in the relevant Sections of the requirements document.

Proponents are encouraged to meet frequently with the Ministry throughout the process to ensure that there are no delays in assessing and determining the completeness of a submission based on the information submitted by the proponent to fulfil requirements. In addition, to support greater coordination proponents are encouraged to seek federal and agency input to meet any requirements early in the process.

### **3.3 Submitting a complete submission and agency review**

Once a proponent has completed all necessary requirements outlined in this requirements document and/or the Ministry of Environment's Renewable Energy Approval Regulation, they may submit a complete submission to the Government for review (the Ministry will require three hard copies of the information).

Once it has been determined that the complete submission is complete, the Ministry and the Ministry of the Environment will post information to the Environmental Registry for public review and comment, as set out in the Environmental Bill of Rights.

Where it has been determined that a proponent has not fulfilled the requirements as set out in this requirements document based on the information submitted by the proponent, the Ministry will not accept the complete submission until all requirements have been completed.

Proponents should note that there are instances where the Ministry is unable to accept a complete submission prior to the proponent receiving approvals from other agencies, including Federal Agencies outlined in Appendix F.

### **3.4 Issuance of approvals**

Within an established timeframe of the complete submission being accepted, the Ministry will make a decision about the issuance of all applicable permits, licences, and authorizations with any associated conditions and the Ministry of the Environment will make a decision on the issuance of the Renewable Energy Approval, and where approved, will issue them within the established timeframe.

In exceptional circumstances, where new information is discovered after the complete submission is accepted that may affect the ability of the Ministry to give authorizations, the Ministry may require the proponent to fulfill additional requirements or may deny project approvals.

Decisions or proposed decisions made by the Ministry on some types of approvals may be appealed by a proponent or the proponent may initiate an inquiry. Refer to Section 9 for details.

The established timeframe for approvals does not apply where a proponent is seeking a permit under clause 17(2)(d) of the Endangered Species Act, 2007 to authorize an activity that has a significant social or economic benefit to Ontario, as Lieutenant Governor in Council approval is required prior to the issuance of this type of permit.

Proponents should note that while a decision to grant a disposition and tenure for a proposal on Crown land is part of project approval, the related legal tenure documents may be issued after the established timeframe.

Where a proponent intends to undertake an amendment to project plans prior to construction or commissioning the proponent will be required to follow the process outlined in Section 10.

Expansions, modifications and redevelopments of commissioned renewable energy projects are also subject to this requirements document, and the requirements for these undertakings are outlined in Section 11.

For successful proponents once the appeal or inquiry period is over or any appeals or inquiry have been resolved, the proponent may apply for any necessary building permits or once interim authority is granted, may begin construction while awaiting final tenure documents.

### **3.5 Disposition of Crown land**

The Ministry authorizes the use or occupation of Crown land for a renewable energy project through a variety of instruments issued under the Public Lands Act for a fixed term. The decision as to whether to authorize the use or occupation of Crown land is part of the complete submission process however, the related issuance of legal documents may occur after the established timeframe. The Ministry may grant interim authority to authorise the construction of works before commissioning the project and issuing tenure documents. Before issuance of final tenure documents, the proponent must arrange and pay for a Crown Land Plan and the subsequent plan registration, subject to instructions issued by the Ministry.

Typically, testing proposals do not involve long-term tenure. Access to Crown land and authorization to carry out testing are normally granted through:

- Letter of Authorizations
- Land Use Permits
- Work permits for roads and trail construction, including water crossings

For renewable energy projects the use/occupation of Crown land is authorised by one or a combination of documents including, but not limited to:

- Work permits for roads and trail construction, including water crossings
- Waterpower Lease Agreement
- Crown Lease
- Land Use Permit
- Easement
- Crown patent
- Licence of Occupation

All instruments, other than Crown patents, contain terms and conditions that bind the project proponent and the Crown. All instruments require the payment of an annual rent and royalties and provide for periodic review of the rents and royalties.

## **4 Requirements for all renewable energy testing projects proposed on Crown Land**

Renewable energy testing projects (as defined in Appendix A) proposed on Crown land will fall into one of two categories:

- Testing projects where no construction is required to gain access;
- Testing projects where construction of new or modifications to existing access is required.



While testing equipment and associated structures typically are expected to have minimal environmental effects, projects that do involve the construction of new or modification of existing access have additional information requirements due to the potentially greater effects to the natural environment associated with access.

Proponents of renewable energy testing projects may be required to undertake public consultation, where the Ministry deems it necessary. The scope of any necessary public consultation will be determined through discussions with the Ministry, but will not exceed the public consultation requirements for a renewable energy project as outlined in Section 5.1.

#### **4.1 Testing projects where no construction is required to gain access**

Documentation, for the Ministry's purposes, will include:

- Testing project description
- Site plan
- Decommissioning plan
- Aboriginal consultation
- Assessment of the presence of species and habitat protected under the Endangered Species Act, 2007

##### **4.1.1 Testing project description**

A testing project description must include a description of the:

- Renewable energy testing project, including devices or structures to be used and all related infrastructure;
- Proposed existing access to be used for the project;
- Installation, duration and operation of the devices or structures and all related infrastructure, including the proposed:
  - Method of installation;
  - Timing of installation;
  - Duration of operation; and
  - Operation of the device.

##### **4.1.2 Site plan**

Showing the location of the renewable energy testing project, related infrastructure and proposed existing access to the site to be used, in relation to known site features.

##### **4.1.3 Decommissioning plan**

A decommissioning plan is required to ensure that the site is restored to a clean and safe condition. This includes the retiring, abandoning, dismantling, or removing from active service,

working order, or operation all elements of the renewable energy testing project. The terms and conditions for decommissioning will be set out in the final tenure agreement.

#### **4.1.4 Aboriginal consultation**

As described in Section 5.2.

#### **4.1.5 Assessment of the presence of species and habitat protected under the Endangered Species Act, 2007**

An assessment of the potential presence of any species or habitat protected under the Endangered Species Act, 2007, as discussed in Appendix B, is required. Where protected species or protected habitat is present, proponents must submit an analysis of negative effects and any potential complete submission requirements for an Endangered Species Act, 2007 authorization where negative effects cannot be avoided. See Section 5.5.4 and Appendix B.

#### **4.2 Testing projects where construction of new or modifications to existing access is required**

Renewable energy testing projects requiring new or modified access will be required to complete some or all of the requirements outlined in Sections 5, and where applicable requirements outlined in Section 7, except for:

- Post-construction monitoring plan; and
- Public safety plan.

### **5 Requirements for all renewable energy projects proposed on Crown land**

This Section outlines relevant Ministry requirements that a proponent must meet (unless otherwise indicated in writing by the Ministry). This Section applies to:

- a wind, solar and biomass, biogas or biofuels generation facility including associated and ancillary infrastructure;
- associated and ancillary infrastructure components of a waterpower generation facility (see Section 6.4 for requirements related to the remaining components of a waterpower generation facility requiring approval under the Lakes and Rivers Improvement Act);
- a waterpower generation facility that does not require approval under the Lakes and Rivers Improvement Act;

- all renewable energy testing projects that require the construction of new or modified access (although these projects are not subject to all requirements in this Section, as outlined in Section 4.2).

Proponents must provide the following as part of the complete submission for the Ministry's review:

- Documentation of public consultation
- Documentation of Aboriginal consultation
- Project description
- Site plan
- Documentation of natural resource assessment and actions taken
- Documentation that other interests on Crown land have been addressed
- Construction plan
- Post-construction monitoring plan
- Public safety plan
- Decommissioning plan

This Section outlines the information requirements and activities that must be fulfilled to support the completing the above requirements.

Section 6 outlines additional technology-specific requirements that must be completed by the proponent.

Section 7 outlines additional site and/or activity-specific requirements that must be completed by the proponent.

## **5.1 Public notice and community consultation**

Public notice and community consultation is required for most projects subject to this requirements document to ensure that those with a potential interest in a project or who might be affected by it are notified and their concerns addressed. It is the proponent's responsibility to design and carry out an appropriate consultation program for the project.

Community consultation requirements are outlined in the Ministry of the Environment's Renewable Energy Approval Regulation and apply on Crown land.

While mandatory public notice and community consultation requirements are outlined, it is strongly advised that in situations where public interest or the scope of effects are anticipated to be large, the proponent should consider providing for additional consultation during the development of the complete submission. Other methods of community consultation used are at the discretion of the proponent.

## 5.2 Aboriginal consultation

The Government of Ontario recognizes that the duty to consult with Aboriginal peoples on decisions that may affect a constitutionally protected aboriginal or treaty right resides with the Crown. In fulfilling this duty, the Crown may delegate some aspects of consultation to proponents who are seeking approval on a particular project. It is proposed that renewable energy project proponents be required to carry out specified procedural aspects of consultation with Aboriginal communities in Ontario, on behalf of the Crown.

Documentation related to this delegated consultation must accompany the complete submission and at a minimum include the following:

- Evidence of contact with the Crown for a list of aboriginal communities that must be consulted;
- A consultation plan addressing the delegated aspects.
- The form or type of notice given to the identified Aboriginal communities of the proposed, facility early in the planning stages;
- Evidence that identified Aboriginal communities were informed about the location and nature of the proposed renewable energy generation facility as well as the regulatory and approval processes that apply to the facility;
- Evidence that the proponent made best efforts to meet with the identified Aboriginal communities to discuss the project;
- All requests for information arising out of consultation, and documentation of discussion of any asserted Aboriginal or treaty right identified by the community as potentially being adversely affected by the project, and any measures the community suggested to mitigate those potential negative impacts; and,
- Evidence of potentially adverse effects on Aboriginal or treaty rights, and proposed mitigation measures to address identified effects in the renewable energy project design.

The Crown proposes to coordinate the Provincial response to renewable energy proponents concerning which Aboriginal communities are to be consulted on any given project, and the steps referred to above for undertaking and documenting delegated consultation responsibilities.

The crown proposes to clarify, through subsequent guidance materials, its responsibilities for the substantive and procedural aspects of consultation and the appropriate accommodation of aboriginal communities.

## 5.3 Project description

The project description provides an overview of the project and must include:

- A description of the project (including all associated or ancillary equipment, infrastructure and works)
- Purpose of the project
- Outline of the basic technologies to be used
- Installation, duration and operation
- Proposed installed capacity

## 5.4 Site plan

The site plan describes graphically the project site and adjacent lands. It must include two detailed maps:

- One showing the location(s) of the renewable energy facility and all associated temporary and permanent infrastructure, including staging and lay-down areas and existing and proposed access to the site, in relation to site features;
- One at a larger scale that shows the project in relation to all adjacent land uses, land tenure, existing and proposed access and trails, natural features and protected areas identified in Section 5.5.2, up to the maximum applicable setback distance established in this requirements document or in the Ministry of the Environment's Renewable Energy Approval Regulation.

## 5.5 Natural resource assessment and actions to be taken

Different natural values require different actions to be taken. The following Section provides direction on identifying values and then outlines actions required to address each of the identified values, and include:

- setbacks from specific natural features;
- identification of effects to other natural features; and
- actions related to species and habitat protected under the Endangered Species Act, 2007.

### 5.5.1 Natural environment baseline information

To assess and if necessary mitigate the effects of a project on the natural environment, the proponent must first identify and document the natural features on or near the site and determine the significance of the feature. Where there are changes or expected changes to the environment resulting from other projects, whether past, current or future, the Ministry must consider these effects in relation to the proposed project. Where the Ministry identifies that cumulative effects may be large, the study area for a project evaluation may be required to reflect this. Where possible, the Ministry will raise these concerns with the proponent.

Typical natural features to be considered:

- Fish and fish habitat (if structures, roads or transmission affect watercourses)
- Rare vegetation communities as defined by the Ministry's Natural Heritage Information Centre
- Species and habitat protected under the Endangered Species Act, 2007 (see Appendix B for more information on undertaking an evaluation)
- Wildlife and their habitat including the nests and eggs of birds, beaver dams, and the dens of black bears and some furbearing mammals
- Wetlands and coastal wetlands
- Lake trout lakes
- Woodlands
- Valleylands
- Mineral aggregate resources
- Crown forest resources
- Areas of Natural and Scientific Interest
- Provincial Parks and Conservation Reserves (see details Section 7.4)
- Hazard lands (in areas without conservation authorities)
- Key natural heritage features set out in the Oak Ridges Moraine conservation plan and the Greenbelt plan, within the respective plan areas
- Landform conservation areas (category 1 and 2) within the Oak Ridges Moraine conservation plan area
- Key natural heritage features, Lake Simcoe, stream, shoreline and riparian areas set out in the draft Lake Simcoe plan

This list of features is not exhaustive and may vary between sites. Section 6 identifies additional features relevant to specific technologies and provides direction on documentation of these features.

### **5.5.2 Setbacks for significant natural features**

Requirements for development and site alteration within, or adjacent to, a significant natural features are established in the Ministry of Environment's Renewable Energy Approval Regulation.

### **5.5.3 Other natural features**

Development or site alteration shall not be permitted in fish habitat except where relevant provincial approvals and federal approvals (Appendix F) have been granted.

For other natural features that are found not to be significant using the provincial evaluation standards, there are no specific restrictions on development or site alteration. However, the proponent should provide the Ministry with information on:

- The potential effects of the project, including loss of connectivity between and among features;
- Mitigation measures, where proposed by the proponent;
- Net effects after mitigation;
- Significance of net effects; and
- Consideration of existing wildlife management plans and/or fisheries management plans.

The Ministry will review this information and use it in evaluating plans and making decisions on related permits or approvals including decisions related to cumulative effects.

#### **5.5.4 Endangered Species Act, 2007**

Where protected species or habitat are present, the proponent must assess the potential effects of all aspects of the project (e.g. construction, operation, retiring, etc.) on the species and/or habitat. This analysis must include the assessment of any potential off-site effects resulting from the proposed activity. This analysis should be conducted in consultation with the Ministry's District office.

See Appendix B for additional information on determining the presence of species at risk and when the species and habitat protection provisions of the Endangered Species Act, 2007 apply.

In the event that one or more components of the project has the potential to effect any protected species or protected habitat in a way that would be prohibited by section 9 or 10 of the Endangered Species Act, 2007, the proponent must determine if the project can be modified to avoid those effects (e.g. project and design alternatives). All reasonable alternatives to the proposed activity must be considered, including alternatives that would not negatively affect the species, and documented in the complete submission.

Where it has been determined that the project cannot be modified to avoid negative effects to one or more protected species or protected habitat, the project will require an authorization under the Endangered Species Act, 2007 as a part of the project approvals in order to proceed. Further details of complete submission requirements for projects requiring Endangered Species Act, 2007 authorization are included in Appendix B.

For complete submissions where the presence of a protected species or protected habitat has been identified, but the proponent has determined that the project will not have a negative effect on protected species or protected habitats (i.e., the project will not involve any activities that would be prohibited by section 9 or 10 of the Endangered Species Act, 2007), the complete submission must include adequate information satisfactory to the Ministry to support that determination.

Proponent Responsibilities with Respect to Species at Risk Include:

- Researching existing information, conducting any necessary surveys and assessments at the project location and analyzing the potential negative effects that the project may have on species at risk or their habitats in consultation with the Ministry.
- Obtaining and providing any information regarding endangered or threatened species on the SARO List that is required to design the proposal or to inform the Ministry's review of the proposal.
- Determining if the project can be modified (e.g. timing of work) to avoid predicted negative effects on a species or habitat.
- Where the potential need for an Endangered Species Act, 2007 authorization is identified, initiating discussion with the local the Ministry District office to discuss options for authorizations under the Endangered Species Act, 2007 and associated information requirements.
- Development and design any supporting documents for the proposal, including any mitigation or overall benefit plans to the satisfaction of the Ministry.

**5.5.5 Fish and Wildlife Conservation Act authorisations**

The Fish and Wildlife Conservation Act (1997), prohibits:

- the destruction, taking or possession of nests or eggs of birds (except for those species of birds listed in Subsection 7(2) of the Act or those that are protected under the Migratory Birds Convention Act, 1994); and
- the destruction of beaver dams and the dens of black bear and furbearing mammals (except dens of foxes or skunks) and prohibits the interference with a black bear in its den.

A proponent of a proposed renewable energy project that, for the purpose of constructing or operating the project, will destroy the nests or eggs of birds, a beaver dam or the den of a black bear or some furbearing mammals, or interfere with a black bear in its den, must obtain an authorization from the Ministry (for nests and eggs of birds as per Wildlife Policy 6.2.5 and for beaver dams, dens and interference with a black bear in its den as per Wildlife Policy 6.2.4). The proponent should submit as part of the complete submission a written request for authorization. The Ministry will review the request and evaluate the potential affect of approval on the natural resource, and make a decision on whether to issue the authorization and establish any conditions as required.



### **5.5.6 Petroleum resources operation setbacks**

Development is not permitted within 75 metres of a petroleum resources operation, unless the proponent provides an engineers report demonstrating that there are no effects to the development.

## **5.6 Addressing other interests on Crown land**

Through the complete submission, a proponent may be required to provide information related to, but not limited to:

- title searches and legal agreements from affected landowners;
- consents from unpatented mining claim holders or agreement from mining lease holders (where surface rights are held) to surrender all or part of leases where required;
- legal agreements with Petroleum lease holders regarding infrastructure;
- mitigation of effects to existing users, including those with licenses, permits or tenure (may require consent/agreement);
- site access controls to mitigate the effects to other resource users or management activities; and
- measures to address compatibility with or effects to existing land use direction.

## **5.7 Construction plan**

This plan must outline the construction activities to be carried out by the proponent, the timing of such activities, any proposed mitigation measures to be implemented, and any monitoring and reporting required by the Ministry. Appropriate timing of construction activities will be determined not only by construction constraints but also to limit effect to the natural environment.

This plan must include details on all elements associated with the construction of the project, which may include, but is not limited to:

- Construction timing
- Blasting schedule
- Clearing and vegetation management
- Clearing and disposition of merchantable wood
- Any specific construction requirements (including temporary infrastructure)
- Road construction and upgrades
- Water crossings, bridges, culverts and causeways
- Staging and lay-down areas

- Above- and below-ground transmission installations and substations and other related infrastructure
- Sediment control
- Fire suppression and prevention strategy and identification of fire response agency
- Aggregate sources

### **5.7.1 Water crossings, bridges, culverts and causeways**

Where a water crossing, bridge, culvert and/or causeway is part of the project, the proponent must provide information on:

- The type of structure (for example, culvert or bridge);
- The specifications of the structure, including the materials to be used and the size (for example, the diameter and length of a culvert);
- Watershed calculation for flow/flood estimation;
- When and how the structure will be installed and how long construction will take;
- Erosion and sedimentation control; and
- Any other construction details specific to the site that the ministry may require.

### **5.8 Public safety plan**

To minimize potential risks to public safety, including Crown land resource users, the proponent must provide a public safety plan that addresses applicable municipal, provincial and federal safety requirements, and that may include:

- Operational safety
- Access for emergency vehicles
- Forest fire prevention and preparedness plan
- Emergency management plans
- Signage and proposed access restrictions
- Lighting (with consideration for wildlife to the extent possible)
- Hazard lands

### **5.9 Post-construction monitoring plan**

Post-construction monitoring may be required to evaluate the effectiveness of proposed mitigation measures to be implemented during project development and operation. A post-construction monitoring plan will outline the procedures to verify the extent of effects (and compare actual with predicted effects), the effectiveness of mitigation strategies, and whether additional measures are warranted (e.g., operational mitigation).

The post-construction monitoring plan should cover the:

- reason for monitoring;
- environmental component or mitigation measures being monitored and the scope of the program;
- methods and procedures that are to be used for monitoring (e.g., techniques, equipment, indicators, measurements, duration, frequency, etc.);
- timing and duration of monitoring activities including extension of monitoring activities if unanticipated effects are discovered;
- monitoring results reporting provision, including when interim and final reports will be prepared for the Ministry; reports should describe monitoring actions that were undertaken, a description of the study and sampling areas, the data that was collected and the results and interpretation of these results;
- provision for additional actions that may be required to address an effect, including operational mitigation and any related monitoring.

### **5.9.1 Post-construction Compliance with Conditions of the Ministry's Approvals**

Inspections by Ministry staff to assess compliance with conditions contained within Ministry instruments are a normal and on-going function. Proponents of renewable energy projects, who receive approvals under the Ministry's existing legislation which provide inspection authority, should expect these post-construction inspections to occur.

### **5.10 Decommissioning plan**

A decommissioning plan is required to ensure that the site is restored to a clean and safe condition. This includes the retiring, abandoning, dismantling, or removing from active service, working order, or operation all elements of the renewable energy project, including access roads. The terms and conditions for decommissioning will be set out in the final tenure agreement.

## **6 Additional technology-specific requirements for renewable energy projects proposed on Crown land**

### **6.1 On-shore windpower**

In support of the compilation of natural environment baseline information set out in Section 5.5.1, the proponent must also undertake the following specific studies:

- Bird and bird habitat considerations

- Preliminary information must be gathered by the proponent to determine site sensitivity and identify any further investigation required when field surveys are undertaken
- Field surveys to establish baseline information and appropriate monitoring and mitigation measures.
- Bat and bat habitat considerations
  - Preliminary information must be gathered by the proponent to determine site sensitivity and identify any further investigation required when field surveys are undertaken.
  - Field surveys to establish baseline information and appropriate monitoring and mitigation measures.

## **6.2 Off-shore windpower**

In addition to or in the place of the requirements set out in Section 5, the proponent must undertake the following:

### **6.2.1 Site plan**

In addition to the requirements set out in Section 5.4, the site plan must show:

- Shipping channels;
- Commercial fisheries zones;
- Proposed location of submarine cables, including land/water interface, and connection to on-shore transmission
- Existing dispositions on the lake bed (e.g., water intakes)

### **6.2.2 Natural environment baseline information**

For off-shore components of an off-shore wind power project, this list replaces the list in Section 5.5.1 for natural features to be considered:

- Fish and fish habitat
- Fish populations and fisheries
- Rare vegetation communities as defined by the Ministry's Natural Heritage Information Centre
- Species and habitat protected under the Endangered Species Act (see Appendix B for more information on undertaking an evaluation)
- Wildlife species and their habitat
- Coastal wetlands
- Areas of Natural and Scientific Interest

- Provincial Parks and Conservation Reserves (see details in Section 7.4)
- Hazard lands (in areas without conservation authorities)
- Key natural heritage features set out in the Oak Ridges Moraine conservation plan and the Greenbelt plan, within the respective plan areas
- Landform conservation areas (category 1 and 2) within the Oak Ridges Moraine conservation plan area
- Key natural heritage features, Lake Simcoe, stream, shoreline and riparian areas set out in the draft Lake Simcoe plan

In support of the compilation of baseline information, proponents must also undertake the following specific studies:

- Coastal engineering study regarding the potential effect of the proposed project on natural erosion and accretion (where there is no Conservation Authority)
- Bird and bird habitat study
  - Preliminary information must be gathered by the proponent to determine site sensitivity and identify any further investigation required when field surveys are undertaken.
  - Field surveys to establish baseline information and appropriate monitoring and mitigation measures.
- Bat and bat habitat study
  - Preliminary information must be gathered by the proponent to determine site sensitivity and identify any further investigation required when field surveys are undertaken.
  - Field surveys to establish baseline information and appropriate monitoring and mitigation measures.

Based on the location of off-shore wind projects and related infrastructure, some federal government approvals have to be met before the Province can provide its approval (as outlined in Appendix F).

### **6.3 Biomass, biogas and biofuels**

Proponents of all proposed biomass, biogas, and biofuels facilities that will generate electricity and use more than 1,000 cubic meters of forest resources per year (or equivalent measure, regardless of the fibre source) must submit an application for a forest resource processing facility licence, including a business plan for the facility. This requirements document applies only to the renewable energy generation facility; harvesting and forest management must be authorized separately through the Crown Forest Sustainability Act.

The application for a forest resource processing facility licence should be submitted at the beginning of the complete submission process. The business plan must be submitted as part of a proponent's complete submission and show the proponent's ability to finance, operate, and manage the facility and an analysis of the source, species, and volume of the forest resources that will supply the facility. The exact requirements for a business plan will depend on the nature of the proposal, and will be determined in discussions with the proponent, but may include the following:

- Information on the facility owner;
- Description of the project proposal and scheduling;
- Financing and financial information;
- Markets;
- Forest practices (if the proponent will be directly involved in forest management);
- Fibre procurement strategies and supply analysis (annual volume to be used and source(s) of the forest biomass);
- Research and development;
- Management and employees;
- Aboriginal involvement;
- Communication, consultation and approvals;
- Articles of incorporation or articles of amalgamation;
- Environmental effects;

The Ministry may accept the business plan as submitted, require changes, or reject it.

## **6.4 Waterpower projects**

This Section applies to those elements of a waterpower project that require approval under the Lakes and Rivers Improvement Act except for those addressed in Section 5.7.1.

Proponents who are seeking approvals under the Lakes and Rivers Improvement Act are required to begin the process by completing and submitting a Multi-use Application Form (Parts 1 Work Permit Application and Part 5) to the Ministry. This application will be used to determine if the Lakes and Rivers Improvement Act applies to the proposed project and will form part of the project description. A copy of the Multi-use Application Form should also be submitted as part of the complete submission documentation.

Some waterpower projects are subject to two-part review and approval process. The first part is the Location Approval, which is issued under the Lakes and Rivers Improvement Act for a new dam or a change to the footprint of an existing dam.

Once a project receives Location Approval, or where a project does not require Location Approval, the second part is the review and approval of Plans and Specifications for the design, construction, operation and maintenance of the waterpower facility. Construction cannot begin until the plans and specifications approval has been granted by the Ministry.

The Ministry will issue Location Approval before the final complete submission to support the fulfillment of requirements related to Plans and Specifications and any requirements established under the Ministry of the Environment's Renewable Energy Approval Regulation.

Proponents should note that there are instances where the Ministry cannot issue Location Approval and/or Plans and Specifications Approval until approvals have been received from relevant Federal agencies (see Appendix F).

#### **6.4.1 Information for Location Approval**

Following on the requirements identified by the Ministry, applicants are obliged to provide the following information as a basis for the Ministry's review of the location of a dam for a waterpower project:

##### Preliminary drawings and diagrams of the dam (type, size, location)

This includes preliminary drawings in plan, profile and cross-section showing the proposed location, type, size of the dam including discharge facilities.

##### Proposed dam operation water levels and flows

Information to describe the proposed annual dam operation plan for unusual high and low flows, extreme flows and normal flow conditions including a preliminary annual dam operation rule curve.

##### Aboriginal consultation

Information to demonstrate that Aboriginal consultation has been undertaken as per Section 5.2.

##### Legal Instruments and Right to Flood

A proposed dam site or changes to an existing dam site, and permanent or periodic flooding of the reservoir area, must be located: entirely on lands owned by the proponent and/or on lands which the proponent has obtained permission from the owner to construct the dam and cause flooding. If a dam site and/or flooded area are to be located on or near public land, authorization must be obtained from the Ministry under the Public Lands Act.

A determination of a proponent's right to flood will be based on the:

- Dam site location and areas to be flooded;
- Permanently controlled water levels and periodically flooded areas in the reservoir up to the top crest of the dam or Inflow Design Flood level; and
- Impact of proposed dam operations on riparian interests.

#### Statement of authorization from affected riparian owners

Where temporary or permanent flooding of land will occur, or riparian rights will be negatively affected, a formal land tenure document, consent, or release from the affected owners must be obtained. For Lakes and Rivers Improvement Act purposes, this consent could take the form of a letter signed by the proponent and the landowner(s) that stipulates the following:

- the landowner has been informed of the nature of the proposal and its effects;
- the landowner understands how the current conditions affect their property (specify);
- the landowner understands that the proposed works will result in a change to current conditions (specify); and
- the landowner has no objection(s) to the proposed work and hereby provides their consent to the application

#### Watershed maps, Official Plans – existing and future (20 yr) land use

Watershed maps and official plans showing both present and anticipated land use over a time horizon of 20 years or as depicted on Official Plans.

#### Ecological information

The Ministry will consider the characteristics of natural processes in aquatic ecosystems that are deemed important for maintaining ecological functions, as the framework for evaluating the effects of waterpower projects on these ecosystems, and for deciding upon and establishing conditions of approval.

Ecological information that may be required as part of location approval includes:

- flows and levels required to support the perpetuation of fish and wildlife and other natural resources dependent on the water course;
- existence or maintenance for fish passage;
- riparian wildlife habitat and existing wildlife movement corridors
- an assessment of the potential presence of any species or habitat protected under the Endangered Species Act, 2007, as discussed in Appendix B
- special concern, extirpated, threatened or endangered species
- wetlands
- hydrologic regime
- sediment regime



- thermal regime
- chemical regime
- biological characteristics
- zone of influence of the proposed facility

Where species or habitat that are protected under the Endangered Species Act, 2007 are present proponents will need to demonstrate that negative effects can either be avoided or that the project is eligible for one of the Endangered Species Act, 2007 authorizations (as discussed in Section 5.5.4 and Appendix B), prior to location approval.

#### Clearing Crown-owned forest resources from areas to be flooded

Where the proposed project will require the clearing of Crown-owned forest resources refer to Section 7.2 for requirements.

#### Proposed erosion and sediment control measures (construction and operation)

Identify proposed measures to control erosion and sediment during construction and operation of the dam

#### Natural amenities present at the site

Natural amenities are areas of streams, rivers, and lakes that can be used and enjoyed by the public and riparian owners and include beaches, vegetation, trees, unique physical features, scenic areas, areas for swimming, areas for canoeing, portages, and boating, and areas for fishing. The natural amenities may be a feature of the water, the bed, or the shores and the banks. Natural amenities on shores of lakes and rivers should not be destroyed or altered without a full evaluation of the trade-offs involved with evaluation of options for mitigation.

#### Historical and Archaeological Sites

The proposed location for the dam and flooded area should be checked to determine if historical sites or archeological sites might be destroyed or flooded. If such sites may be located at the dam site or in the area to be flooded, the appropriate authority (Ministry of Culture) should be advised of the proposal by the proponent and direction requested early on in the approval procedure.

#### Hazard Potential Classification

A Preliminary Hazard Potential Classification involves a qualitative assessment of the relative factors, such as historical flooding, existing floodplain mapping, downstream development, recreational activities, channel topography and hydraulics, failure characteristics of the dam and reservoir, discharge facilities, and watershed features. Through assessment of these factors, the preliminary Hazard Potential Classification can be assigned for flood and normal (sunny day) dam failures or misoperation if the incremental losses are obvious.

### Existing Water Management Plans for Waterpower

Where the zone of influence of a project is proposed to be located within an existing Water Management Plan for Waterpower the Ministry is required to advise the proponent of its existence. Upon request, the Ministry will provide a hard copy or electronic copy of the existing Water Management Plan to the proponent.

A proposed Operation, Maintenance and Surveillance plan must be consistent with the objectives of an existing Water Management Plan for Waterpower or the proponent must obtain authorization to alter the existing Water Management Plan for Waterpower through a plan amendment. The proponent may also be ordered to prepare or amend, or participate in the preparation or amendment of a Water Management Plan for Waterpower, in accordance with management guidelines approved by the Minister.

### Location Approval – Conditions and Changes

The location approval issued by the Ministry may be subject to such conditions or such changes as may be appropriate. It includes a date for submission of the Plans and Specifications to the Ministry for approval, and an expiry date. The Location Approval will also identify information requirements and conditions that need to be addressed and incorporated into the plans and specifications submission for approval.

## **6.4.2 Information for Plans and Specifications Approval**

The extent of the information and documentation required will be determined by the Ministry on a site-by-site basis and in response to the complexity and extent of the proposed work under review.

### Final Design Report (stamped)

The final design and supporting information, analyses, calculations, input and output of any computer models, and assumptions made in the design of the works must be provided in report format following some typical semblance of organization and include:

- Watershed description
- Location and description of proposed works
- Dam hazard potential classification (HPC)
- Hydrologic and hydraulic analyses
- Inflow design flood (IDF)
- Geotechnical investigations and analyse
- Structural design analyses
- Operation, maintenance, and surveillance (inspection and monitoring) plans or manual
- Emergency preparedness plan
- Design features that provide for future adaptive management opportunities (e.g. operating regimes, structural stability, discharge capacity)

- Construction timing windows
- Documentation that criteria and standards have been met
- Construction completion date

#### Hydrologic and Hydraulic Analyses

The following information shall be addressed as part of the analyses:

- Inflow design flood
- Stage-storage-discharge calculations
- Confirmed dam operation water levels and flows (for all discharge facilities including powerhouse and bypass reach)
- Floodplain mapping
- Hydraulic discharge capacity calculations
- Channel velocity calculations
- Channel and bank protection
- Fluvial Geomorphologic Assessment
- Reservoir flood routing computations/modeling
- Dam-break analysis and inundation mapping
- Water balance calculations; evaporation, withdrawals, seepage
- Stilling basin design calculations

#### Geotechnical Investigations and Structural Design Calculations

Geotechnical field investigations, analyses and structural design calculations include:

- Structural stability calculations (overturning, sliding, and overstressing)
- Embankment, reservoir and borrow areas
- Foundation investigations and analysis (test pits and bore holes)

#### Soils Analysis

Soils analysis includes the following:

- Classification (United Soils Classification System)
- Soil strength
- Bearing capacities
- Erosion and Sediment Control Plan
- Standard Proctor Test
- Permeability

#### Ecological information (where Location Approval is not required)

The Ministry will consider the characteristics of natural processes in aquatic ecosystems that are deemed important for maintaining ecological functions, as the framework for evaluating the

effects of waterpower projects on these ecosystems, and for deciding upon and establishing conditions of approval.

Ecological information that may be required as part of Plans and Specifications Approval includes:

- flows and levels required to support the perpetuation of fish and wildlife and other natural resources dependent on the water course;
- existence or maintenance for fish passage;
- riparian wildlife habitat and existing wildlife movement corridors
- an assessment of the potential presence of any species or habitat protected under the Endangered Species Act, 2007, as discussed in Appendix B
- wetlands
- natural hydrologic regime
- sediment regime
- thermal regime
- chemical regime
- biological characteristics
- zone of influence of the proposed facility

Where species or habitat that is protected under the Endangered Species Act, 2007 is present, proponents must submit an analysis of negative effects and any potential application requirements for an ESA, 2007 authorization where negative effects cannot be avoided. See Section 5.5.4 and Appendix B.

#### Detailed Construction Drawings and Specifications stamped by an engineer

Construction drawings and specifications shall include:

- Plan views, profiles and detailed cross-sections clearly illustrating the proposed works including surface and subsurface conditions, all natural and proposed water levels to geodetic datum;
- All associated infrastructure such as discharge and waterpower facilities, saddle/block dams;
- Cofferdams and dewatering system; and
- Sediment and erosion control plan.

#### Construction Timing Window and Schedule

The proponent shall provide a schedule of dates for completion of major phases of construction (e.g. installation and removal of dewatering works and cofferdams) and the construction completion date.

### Existing Water Management Plans for Waterpower

Where the zone of influence of a project is proposed to be located within an existing Water Management Plan for Waterpower, the Ministry is required to advise the proponent of its existence. Upon request, the Ministry will provide a hard copy or electronic copy of the existing Water Management Plan to the applicant.

Plans and Specifications approval under the Lakes and Rivers Improvement Act is required for the preparation of a new or revised operation, maintenance and surveillance plan which includes a description of the proposed operating regime (flows and levels). A proposed operation, maintenance and surveillance plan must be consistent with the objectives of an existing Water Management Plan for Waterpower or the proponent must obtain authorization to alter the existing Water Management Plan for Waterpower through a plan amendment. The proponent may also be ordered to prepare or amend, or participate in the preparation or amendment of a Water Management Plan for Waterpower, in accordance with management guidelines approved by the Minister.

### **6.4.3 Post-construction monitoring plan**

Post-construction monitoring may be required to evaluate the effectiveness of proposed mitigation measures to be implemented during project development and operation. A post-construction monitoring plan will outline the procedures to verify the extent of effects (and compare actual with predicted effects), the effectiveness of mitigation strategies, and whether additional measures are warranted (e.g., operational mitigation).

The post-construction monitoring plan should cover the:

- reason for monitoring;
- environmental component or mitigation measures being monitored and the scope of the program;
- methods and procedures that are to be used for monitoring (e.g., techniques, equipment, indicators, measurements, duration, frequency, etc.);
- timing and duration of monitoring activities including extension of monitoring activities if unanticipated effects are discovered;
- monitoring results reporting provision, including when interim and final reports will be prepared for the Ministry; reports should describe monitoring actions that were undertaken, a description of the study and sampling areas, the data that was collected and the results and interpretation of these results;
- provision for additional actions that may be required to address an effect, including operational mitigation and any related monitoring.

### Post-construction Compliance with Conditions of the Ministry's Approvals

Inspections by Ministry staff to assess compliance with conditions contained within Ministry instruments are a normal and on-going function. Proponents of renewable energy projects, who receive approvals under legislation which provide for inspections, should expect these post-construction inspections to occur.

#### **6.4.4 Decommissioning plan**

A decommissioning plan is required to ensure that the site is restored to a clean and safe condition. This includes the retiring, abandoning, dismantling, or removing from active service, working order, or operation all elements of the renewable energy project, including access roads. The terms and conditions for decommissioning will be set out in the final tenure agreement

#### **6.4.5 Pumped Storage Waterpower Generation**

If the project involves pumped generation storage technology, proponents are obliged to complete and submit a Multi-use Application Form (Parts 1 Work Permit Application and Part 5) to the Ministry. This will be used to determine if the Lakes and Rivers Improvement Act or the Public Lands Act applies to the proposed project and will form part of the project description.

## **7 Other potential requirements for renewable energy projects proposed on Crown land**

Renewable energy testing projects or renewable energy projects that involve the following activities will need to fulfil additional requirements:

- Removal of aggregate material;
- Harvesting Crown-owned forest resources; and
- Wildfire prevention and preparedness requirements.

Renewable energy testing project or renewable energy projects proposed in certain areas of the Province will need to fulfil additional requirements related to the protection of the natural environment or public health and safety including:

- Projects proposed in Provincial Parks or Conservation Reserves;
- Projects proposed in natural hazard lands (not regulated by a Conservation Authority); and
- Projects proposed in an area under a Forest Resource License or a Sustainable Forest License.

The requirements for the specific activities and areas are outlined in the following Sections.

## **7.1 Aggregate extraction requirements**

The Aggregate Resources Act and the Aggregate Resources of Ontario Provincial Standards identifies the legal process where a licence or aggregate permit is required to remove aggregate from a pit or quarry in Ontario.

If a renewable energy project requires aggregate, the proponent is advised to contact the local District office of the Ministry to determine if commercial sources of aggregate (licensed or permitted) are nearby, in order to determine the availability of material for your project.

### **7.1.1 Aggregate extraction on Crown land or extraction of Crown-owned aggregate**

An aggregate permit is required for aggregate extraction on Crown land or where the Crown owns the aggregate, and all extraction from land under natural water bodies. If a proponent of a renewable energy project proposed on Crown land wishes to remove and use aggregate material from the project site, the proponent must apply for an aggregate permit and be granted a permit prior to undertaking the activity.

The proponent will be required to prepare a site plan and technical reports (e.g., hydrogeological natural environment, and cultural heritage resources reports) in accordance with the relevant sections of the Aggregate Resources of Ontario Provincial Standards. The proponent is responsible for undertaking notification and consultation with relevant Ministries and agencies, public, and Aboriginal communities.

The proponent must submit a package of the site plan, technical reports and documentation of the consultation process as part of the complete submission to the Ministry for review.

### **7.1.2 Aggregate extraction on Private land in a designated area**

An aggregate licence is required for aggregate extraction on private land in a designated area (an area identified in regulation). A Class A licence is issued for operations that remove more than 20,000 tonnes of material from the site annually. A Class B licence is issued for operations that remove 20,000 tonnes or less annually. If a proponent of a renewable energy project proposed on private land wishes to remove and use aggregate material from the project site, the proponent must apply for an aggregate licence and be granted a permit prior to undertaking the activity.

The proponent will be required to prepare a site plan and technical reports (e.g., hydrogeological natural environment, and cultural heritage resources reports) in accordance with the relevant sections of the Aggregate Resources of Ontario Provincial Standards. The proponent is responsible for undertaking notification and consultation with relevant Ministries and agencies, public, and Aboriginal communities. The applicant will also be required to obtain planning approval under the Zoning by-law and/or the Official Plan.

If objections cannot be resolved during the Notification and Consultation process, which can take up to two years, the aggregate licence application would be referred to the Ontario Municipal Board (OMB) for a hearing. The referral to the OMB and the time associated with a hearing can take up to several years to conclude.

### **7.1.3 Aggregate extraction on Private land in an area not designated**

The Aggregate resources Act does not apply to areas on private land that are not designated under Regulation. The proponent should seek any relevant Municipal approvals in organised territories.

## **7.2 Harvesting Crown-owned forest resources requirements**

Where a renewable energy project involves the harvest (clearing) of Crown timber, the proponent must be granted authorization to do so by the Ministry. The process for authorization depends on whether the site is within an area already licensed.

### **7.2.1 On Crown Land with no active licence**

Where a renewable energy project is proposed on Crown land that is not under an active licence, and requires the harvest of any Crown timber, the proponent must obtain a Forest Resource Licence from the Ministry (issued under Section 27 of the Crown Forest Sustainability Act) and undertake harvest in accordance with the Forest Resource Licence. In addition, an exemption under Section 47 of the Crown Forest Sustainability Act must be obtained since the harvest will not be in accordance with various sections of Part IV of the Crown Forest Sustainability Act.

Proponents should discuss requirements with the Ministry's District office. Requirements for a Forest Resource Licence and exemption will typically include:

- a map of the area to be cleared;
- the name of the project proponent;
- the name of the individual or company that the Forest Resource Licence will be issued to (either the proponent or the individual or company that will undertake the harvest activity, if not the proponent); and
- a description of the harvest activities.

This information should be submitted with the complete submission documentation. Proponents should note that Crown charges appropriate to the species, grade and destination apply and that all attempts should be made to utilize the harvested material. However, where the proposed renewable energy project site is in an area where the Crown timber is committed to a forest resource processing facility, a condition can be included on the Forest Resource Licence directing the licensee to dispose of the wood in accordance with the terms of the commitment document.



### **7.2.2 On land under an Forest Resource Licence**

Where the proposed renewable energy project site is in an area under an active forest resource licence, the Ministry must formally amend the licence to allow disposition or “withdrawal” of the land from the licensed area (as described in Section 7.6.1). Once the existing licence has been amended, a new Forest Resource Licence must be issued to authorize the clearing of trees as outlined in Section 7.2.1).

### **7.2.3 On land under an Sustainable Forest Licence**

Where the proposed renewable energy project site is in an area under an active sustainable forest licence, the Ministry must formally amend the licence and, if necessary, the related forest management plan to allow disposition or “withdrawal” of land (as outlined in Section 7.6.2). Once the existing licence has been amended, a new Forest Resource Licence must be issued to authorize the clearing of any trees as outlined in Section 7.2.1).

## **7.3 Wildfire prevention and preparedness requirements**

Any project on Crown land or any land within a fire region must follow the Ministry’s standards for forest fire prevention and preparedness. Projects on any other land are subject to the relevant provincial/municipal framework for fire safety and prevention. Proponents should discuss proposed projects with the local Ministry district office, fire managers and local municipal fire officials.

The proponent must address fire risks through all phases of a project, including land clearing (and disposal of debris) for the facilities and all associated or ancillary infrastructure, equipment, and works.

The complete submission should include:

- Hazard assessment;
  - Fuels
  - Values
- Risk assessment for the risk of ignition;
  - Prevention measures needed and depending on risk of ignition, mitigation of potential for ignitions when operational
- Preparedness;
  - Suppression plan (including identification of fire response agency; training of staff to suppress fires; suppression equipment on site, etc.)
  - Emergency plan (e.g., evacuations, etc.)
- Fire protection of the facility in case threatened by a wildfire;
  - FireSmart construction and landscaping
  - Fuels maintenance.

## 7.4 Projects proposed in Provincial Parks or Conservation Reserves

Ontario's system of protected areas includes more than 620 provincial parks and conservation reserves with an area of 9.5 million hectares, or about 9% of Ontario's land area. These protected areas provide environmental, social, economic, scientific and educational benefits.

The Provincial Parks and Conservation Reserves Act, which came into effect in 2007, provides a legislative basis for planning and managing these areas. Permits and approvals for projects in protected areas are issued under this act, rather than other Ministry of Natural Resources legislation.

The act prohibits electricity projects, with the following exceptions:

1. Facilities located in a provincial park or conservation reserve may continue to operate and be maintained and, with the approval of the Minister, may be improved, rebuilt or altered.
2. Facilities for the generation of electricity may be developed in provincial parks and conservation reserves for use within communities that are not connected to the IESO-controlled grid.
3. Facilities identified in a Ministry land use plan for a specific site before the site was regulated as part of a provincial park or conservation reserve.
4. Facilities for use for provincial park or conservation reserve purposes.

The act allows utility corridors in protected areas.

For any project being proposed that would have an effect on these areas, early dialogue with the Ministry staff is highly recommended to identify protected area values, assess potential effects, and consider alternatives and mitigation.

Before approving a project proposed under exceptions 2 through 4 or a utility corridor in a protected area, the ministry must be satisfied that three conditions are met: There are no reasonable alternatives; lowest cost is not the sole or overriding justification; and all reasonable measures will be undertaken to minimize harmful environmental effect and protect ecological integrity.

In addition, there are other considerations for testing and renewable energy projects in Parks and Conservation Reserves that should be noted, including:

- Testing must be associated with proposals that are consistent with the PPCRA or be approved by the Minister.

- The Provincial Parks and Conservation Reserves Act includes requirements around the preparation of management direction
- The extraction of aggregate is prohibited unless as an incidental activity on a site it becomes available
- New access roads are not permitted unless they are part of a renewable energy project

#### **7.4.1 No reasonable alternatives**

The proponent must provide a rationale for selecting the preferred alternative. Alternatives to the project and alternative methods of carrying out the project, including the null (do nothing), need to be set out. The proponent must provide an explanation if no alternatives were considered or available. In addition:

- When comparing alternative projects (e.g., locations, routes, etc.), the comparison should show the potential net environmental effects in a logical and systematic way.
- The level of sophistication of the comparison should respond to the complexity of the project, its potential environmental effects, and how the alternatives differ. There should be some assignment of priorities or weighting to the evaluation criteria or groups of criteria to be applied in the comparison.
- An evaluation matrix describing environmental effects under each criterion for each alternative, supported by a narrative description of the comparison, should be used. Low, moderate and high positive and negative effects may be assigned to each criterion. The ranges of values for indicators used to assess effects in low, moderate and high categories should be specified and explained.
- The advantages and disadvantages of the preferred alternative should be reviewed against the purpose the project is intended to serve.

#### **7.4.2 Lowest cost is not the sole or overriding justification**

Project cost is an important consideration in selecting the preferred alternative. Incorporating cost in the evaluation criteria established for considering alternatives will show that cost consideration was not the primary factor for determining the preferred alternative and environmental factors were taken into account.

#### **7.4.3 Environmental effects and mitigation**

Environment effects must be considered and all reasonable measures undertaken to minimize harmful environmental effect and protect ecological integrity

#### Environmental Impacts

In addition to the general consideration of environmental effects set out in previous sections, values that represent why the protected area was created must also be considered.

### Ecological Integrity

Ecological integrity refers to a condition in which living and non-living components of ecosystems and the kinds of native species and biological communities and their abundance reflect their natural regions, and rates of change and ecosystem processes are unimpeded. There is not a single, comprehensive indicator of ecological integrity. Therefore effects to ecological integrity will require the consideration of a variety of features and processes that could be affected by development.

Ecological integrity can be broken down into consideration of three things: composition, structure, and function. Consideration should also be given to:

- Scale – does the proposed project have the potential to affect ecological integrity on a local scale, a regional scale, or a broader scale?
- Time frame – what are the potential long term effects of the proposed project and do they differ from the short term effects?
- Biological indicators and/or ecological indices (consider the selection of indicator species to monitor risk to ecological integrity, or tracking and measurement of combined indicators within an ecological index)

### Mitigation

The proponent must provide information which clearly identifies the anticipated effect that the project may have on values and ecological integrity of the protected area, the mitigation measures proposed, and the net effects remaining after mitigation. Monitoring of project effects will be required to verify the effectiveness of the mitigation measures, or to verify the predicted effects.

The Ministry will review this information and evaluate the plans as it relates to:

- Potential effects
- Mitigation measures
- Net effects
- Significance of net effects
- Relationship with the management direction of the protected area
- Impact to the protected area system

## **7.5 Projects proposed in natural hazard lands (not regulated by a Conservation Authority)**

Development shall generally be directed to areas outside of:

- hazardous lands adjacent to the shorelines of the Great Lakes - St. Lawrence River System and large inland lakes which are effected by flooding hazards, erosion hazards and/or dynamic beach hazards;
- hazardous lands adjacent to river, stream and small inland lake systems which are effected by flooding hazards and/or erosion hazards; and
- hazardous sites.

Development and site alteration shall not be permitted within:

- a dynamic beach hazard;
- defined portions of the one hundred year flood level along connecting channels (the St. Mary's, St. Clair, Detroit, Niagara and St. Lawrence Rivers);
- areas that would be rendered inaccessible to people and vehicles during times of flooding hazards, erosion hazards and/or dynamic beach hazards, unless it has been demonstrated that the site has safe access appropriate for the nature of the development and the natural hazard; and
- a floodway regardless of whether the area of inundation contains high points of land not subject to flooding.

Despite the above direction development and site alteration may be permitted in these areas where the development is limited to uses which by their nature must locate within the floodway, including flood and/or erosion control works or minor additions or passive non-structural uses which do not affect flood flows.

Where the two zone concept for flood plains is applied, development and site alteration may be permitted in the flood fringe, subject to appropriate flood proofing to the flooding hazard elevation or another flooding hazard standard approved by the Minister of Natural Resources.

Development and site alteration may be permitted in those portions of hazardous lands and hazardous sites where the effects and risk to public safety are minor so as to be managed or mitigated in accordance with provincial standards, as determined by the demonstration and achievement of all of the following:

- development and site alteration is carried out in accordance with flood proofing standards, protection works standards, and access standards;
- vehicles and people have a way of safely entering and exiting the area during times of flooding, erosion and other emergencies;
- new hazards are not created and existing hazards are not aggravated; and
- no negative environmental effects will result.

Where a project is contemplated to be built within an area identified as a hazard land the proponent will provide information, including:

- Erosion and sediment effects assessments, and mitigation measures
- Hydrologic and hydraulic effect assessments
- Geotechnical/Slope Stability information
- Letter of Opinion that structure can withstand flood depth and velocity, certified by a professional engineer
- Proposed site alteration, including grading, topsoil stripping and natural channel modification
- Federal Government approvals (see Appendix F )

## **7.6 Projects proposed in an area under a Forest Resource License or a Sustainable Forest License**

This Section applies to a renewable energy testing project or renewable energy project proposed on lands under a forest resource licence or a sustainable forest licence and requiring the lands to be withdrawn from the licence area and a Crown land disposition. For further details, refer to the Ministry's Application Review and Land Disposition Policy and Process (PL 4.02.01) and the Forest Management Procedures dealing with disposition of land and amendments.

### **7.6.1 On land under a Forest Resource Licence**

Where there is an active forest resource licence, the Ministry must formally amend the licence to allow disposition or "withdrawal" of land. The Ministry will work with the proponent and the existing licence holder to facilitate the disposition. The existing licence holder has specific rights that the Ministry must address.

### **7.6.2 On land under a Sustainable Forest Licence**

Where there is an active sustainable forest licence, the Ministry must formally amend the licence to allow disposition or "withdrawal" of land. The Ministry will work with the proponent and the existing licence holder to facilitate the disposition. The existing licence holder has specific rights that the Ministry must address. As well, the Ministry must consider the related forest management plan and, if necessary, amend it before or at the same time as the licence is amended. The rights of the licence holder to the forest resources do not end until the Minister has signed the licence amendment.

## **8 Requirements for all renewable energy projects proposed on private land**

Some of the statutes administered by the Ministry are applicable on private land as well as Crown lands. These include the:

- Lakes and Rivers Improvement Act
- Fish and Wildlife Conservation Act
- Endangered Species Act, 2007
- Crown Forest Sustainability Act
- Forest Fires Prevention Act
- Aggregate Resources Act
- Oil, Gas and Salt Resources Act
- Conservation Authorities Act
- Niagara Escarpment Planning and Development Act

Where a renewable energy testing project or a renewable energy project is proposed on private land and may involve resources for which the Ministry has a legislative responsibility, the proponent must fulfil requirements and submit information for the Ministry's consideration in making decisions and issue relevant permits and approvals for the project.

### **8.1 Requirements for renewable energy testing projects proposed on private land**

- Where the project has the potential to negatively affect species or habitat protected under the Endangered Species Act, 2007, the project would be subject to the requirements outlined in Section 5.5.4

### **8.2 Requirements for all renewable energy projects proposed on private land**

- Where the project has the potential to negatively affect species or habitat protected under the Endangered Species Act, 2007, the project would be subject to the requirements outlined in Section 5.5.4
- Fish and Wildlife Conservation Act authorizations (see Section 5.5.5)
- Setbacks from petroleum resources operations (see Section 5.5.6)
- Construction plan for any water crossings, bridges, culverts and causeways (see Section 5.7.1)

#### **8.2.1 Additional requirements for Biomass, Biogas, Biofuels projects**

- Requirements for a forest resource processing licence (see Section 6.3)

### **8.2.2 Additional requirements for Waterpower projects**

- All requirements for elements of the project requiring approval under the Lakes and Rivers Improvement Act except for those addressed in Section 5.7.1 (see Section 6.4)

### **8.3 Other potential requirements for renewable energy projects proposed on private land**

Renewable energy testing projects or renewable energy projects that involve the following activities will need to fulfil additional requirements:

- Removal of aggregate material (see Section 7.1); and
- Harvesting Crown-owned forest resources (see Section 7.2)

Renewable energy testing project or renewable energy projects proposed in certain areas of the Province will need to fulfil additional requirements related to the protection of the natural environment or public health and safety including:

- Wildfire prevention and preparedness requirements (see Section 7.3); and
- Projects proposed in natural hazard lands (not regulated by a Conservation Authority) (see Section 7.5).

## **9 Appeals and inquiries**

### **9.1 Public Lands Act work permit appeal process**

Regulation 975 under the Public Lands Act requires that an officer issue a work permit to any person who applies for one, unless the officer is of the opinion that the work will be inconsistent with one of the criteria listed in subsection 2(1) of Regulation 975, as amended. If an officer proposes to refuse or cancel a work permit the proponent/permittee has a right to an appeal. Refer to the Work Permits – Section 14, Public Lands Act Policy for complete details of the appeal process.

### **9.2 Conservation Authority appeals**

The Mining and Lands Commissioner has been assigned the authority, duties and powers of the Minister of Natural Resources under the Ministry of Natural Resources Act to hear appeals from the decisions of conservation authorities made under the Conservation Authorities Act regarding their refusal to grant permission to a property owner for the development of lands within floodplains, hazardous lands, dynamic beaches and wetlands. Substantive and procedural requirements are set out in Part VI of the Mining Act.



### **9.3 Lakes and Rivers Improvement Act inquiries**

The Mining and Lands Commissioner has historically been designated under the Lakes and Rivers Improvement Act, which provides for an inquiry upon the request of a proponent who has received notice from the Minister of his intention to refuse approval or make an order. The inquiry would result in a report with recommendations to the Minister.

## **10 Amendments to plans prior to commissioning**

This Section applies where a proponent wishes to amend plans for a renewable energy generation facility prior to the commissioning of the project but after their complete submission and all supporting documentation have been accepted by the Ministry.

A proponent requiring an amendment to project plans either:

- after the complete submission has been accepted by the Ministry but before approvals have been granted; or
- after the project has received approvals from the Ministry but prior to commissioning of the project

must submit to the government in writing, the details of the proposed amendment. Based on this information the specific requirements related to the proposed amendment will be identified.

Proponents may be required to complete some or all of the requirements outlined in Sections 5, 6 and 7, as applicable to the amendment proposed, in order for the Ministry to accept the revised complete submission and consider approvals or amendments to approvals.

## **11 Expansions, modifications and redevelopments of commissioned sites**

This Section of the requirements document applies to expansions, modifications or redevelopments of existing, commissioned renewable energy generation facility.

Where a proponent wishes to undertake an expansion, modification or redevelopment of a commissioned renewable energy generation facility, they must discuss with government the details of the proposed project. Once the proponent has identified the details of the project the specific requirements related to the proposed project will be identified. Proponents may be required to complete some or all of the requirements outlined in Sections 5, 6 and 7, as applicable to the expansion, modification or redevelopment proposed.

## **12 Transition Provisions**

Where a project is going through an assessment under the Class Environment Assessment for Resource Stewardship Facilities Development to support the development of a renewable energy testing project or a renewable energy project but has not been authorised to proceed under the Environmental Assessment Act, the project proponent will need to satisfy the requirements outlined in this requirements document.

Where an environmental assessment has been completed for a project, but the project has not received all approvals and permits from the Ministry, the proponent will need to satisfy the requirements outlined in this requirements document in order for the Ministry to issue remaining approvals and permits. The proponent should meet with the Ministry to determine if there are any outstanding requirements relevant to the project.

Any work completed prior to the date of this requirements document being approved will be considered in relation to the requirements outlined in this requirements document.

## Appendix A Definitions

In this requirements document:

**Aggregate** means gravel, sand, clay, earth, shale, stone, limestone, dolostone, sandstone, marble, granite, and rock.

**Development** means the construction of buildings and structures.

**Dynamic beach hazard** means areas of inherently unstable accumulations of shoreline sediments along the Great Lakes - St. Lawrence River System and large inland lakes, as identified by provincial standards, as amended from time to time. The dynamic beach hazard limit consists of the flooding hazard limit plus a dynamic beach allowance.

**Erosion hazard** means the loss of land, due to human or natural processes, that poses a threat to life and property. The erosion hazard limit is determined using considerations that include the 100 year erosion rate (the average annual rate of recession extended over a one hundred year time span), an allowance for slope stability, and an erosion/erosion access allowance.

**Flooding hazard** means the inundation, under the conditions specified below, of areas adjacent to a shoreline or a river or stream system and not ordinarily covered by water:

- (a) Along the shorelines of the Great Lakes - St. Lawrence River System and large inland lakes, the flooding hazard limit is based on the one hundred year flood level plus an allowance for wave uprush and other water-related hazards;
- (b) Along river, stream and small inland lake systems, the flooding hazard limit is the greater of:
  1. the flood resulting from the rainfall actually experienced during a major storm such as the Hurricane Hazel storm (1954) or the Timmins storm (1961), transposed over a specific watershed and combined with the local conditions, where evidence suggests that the storm event could have potentially occurred over watersheds in the general area;
  2. the one hundred year flood; and
  3. a flood which is greater than 1. or 2. which was actually experienced in a particular watershed or portion thereof as a result of ice jams and which has been approved as the standard for that specific area by the Minister of Natural Resources;

except where the use of the one hundred year flood or the actually experienced event has been approved by the Minister of Natural Resources as the standard for a specific watershed (where the past history of flooding supports the lowering of the standard).

**Forest resources** means trees in a forest ecosystem, any other type of plant life prescribed by the regulations that is in a forest ecosystem, and parts of or residue from trees in a forest ecosystem.

**Hazard lands** means property or lands that could be unsafe for development due to naturally occurring processes. Along the shorelines of the Great Lakes - St. Lawrence River System, this means the land, including that covered by water, between the international boundaries,

where applicable, and the furthest landward limit of the flooding hazard, erosion hazard or dynamic beach hazard limits. Along the shorelines of large inland lakes, this means the land, including that covered by water, between a defined offshore distance or depth and the furthest landward limit of the flooding hazard, erosion hazard or dynamic beach hazard limits. Along river, stream and small inland lake systems, this means the land, including that covered by water, to the furthest landward limit of the flooding hazard or erosion hazard limits.

**Effect (or impact) management measures** refers to the range of environmental protection strategies such as avoidance/prevention/mitigation and post-construction monitoring/evaluation/adjustment.

**Kinetic waterpower** means a waterpower facility with zero head and that generates electricity from the flow, current or velocity of water.

**Low head waterpower** means a waterpower facility where the head is less than 2 metres.

**Mitigation** means the means by which a project can be modified to eliminate, reduce or control the negative effects to the environment of a project, including restitution for any damage to the environment caused by such effects through replacement, restoration, compensation or any other means.

**Effect** means the occurrence of change or alteration associated with the environment within the defined study area, positive or negative, that would occur as a result of a project.

**Negative environmental effects** mean the negative effects that a project has, or could potentially have, directly or indirectly on the environment at any stage in the project life cycle, which may include, but are not limited to, the harmful alteration, disruption, destruction, or loss of natural features, flora or fauna and their habitat, ecological functions, natural resources, air or water quality, and cultural or heritage resources.

**Net effect** means the positive or negative effects of a project and related activities that will remain after mitigation and impact management measures have been applied.

**Petroleum resources operation** means a “well” or “work” as defined by the Oil, Gas and Salt Resources Act.

“well” means a hole in the ground, whether completely drilled or in the process of being drilled, for the purpose of,

- (a) the production of oil, gas or formation water, including the production of coal bed methane but excluding the production of fresh water,
- (b) the injection, storage and withdrawal of oil, gas, other hydrocarbons or other approved substances in an underground geological formation,
- (c) the disposal of oil field fluid in an underground geological formation,
- (d) solution mining, or

(e) geological evaluation or testing rocks of Cambrian or more recent age;

“work” means a well or any pipeline or other structure or equipment that is used in association with a well.

**Proponent** means a person who carries out or proposes to carry out a project, or is the owner or person having charge, management or control of a project.

**Renewable energy project** has the same meaning as in the Green Energy Act, 2009.

**Renewable energy generation facility** has the same meaning as in the Electricity Act, 1998.

**Renewable energy source** has the same meaning as in the Green Energy Act, 2009.

**Renewable energy testing facility** has the same meaning as in the Green Energy Act, 2009.

**Renewable energy testing project** has the same meaning as in the Green Energy Act, 2009.

**Significant** means:

- (a) in regard to wetlands, coastal wetlands and areas of natural and scientific interest, an area identified as provincially significant by the Ministry using evaluation procedures established by the Province, as amended from time to time;
- (b) in regard to woodlands, an area which is ecologically important in terms of features such as species composition, age of trees and stand history; functionally important due to its contribution to the broader landscape because of its location, size or due to the amount of forest cover in the planning area; or economically important due to site quality, species composition, or past management history; and
- (c) in regard to other features and areas in policy 5.5.2, ecologically important in terms of features, functions, representation or amount, and contributing to the quality and diversity of an identifiable geographic area or natural heritage system.

**Site alteration** means activities, such as grading, excavation and the placement of fill that would change the landform and natural vegetative characteristics of a site.

**Waterpower** means traditional in-stream and off-stream waterpower technologies that involve small to large water storage, including pumped storage, and small-scale technologies that involve no storage.

**Wildlife** means an animal that belongs to a species that is wild by nature, and includes game wildlife and specially protected wildlife.

**Zone of influence** means the area on the landscape where a significant measurable effect can be detected as a result of a renewable energy project, whether from the footprint, operation, fragmentation or barrier effect.

## **Appendix B Requirements of the Endangered Species Act, 2007**

### **General**

The Endangered Species Act, 2007, which came into force in 2008, provides a strong framework for the protection and recovery of Ontario's species at risk and their habitats. The act is binding on everyone in Ontario – including individuals, businesses, conservation authorities, and provincial and municipal governments.

The Species at Risk in Ontario List (SARO List) is a regulation (O.Reg. 230/08) made under the Endangered Species Act, 2007 that identifies which species are at risk in Ontario. If a species is classified "at risk" by the Committee on the Status of Species at Risk in Ontario (COSSARO), they are added to the SARO List in one of four categories, depending on the degree of risk.

The four categories, or classes, of "at risk" are:

- **Extirpated:** A species is classified as extirpated if it lives somewhere in the world, and it at one time lived in the wild in Ontario, but no longer lives in the wild in Ontario.
- **Endangered:** A species is classified as endangered if it lives in the wild in Ontario but is facing imminent extinction or extirpation.
- **Threatened:** A species is classified as threatened if it lives in the wild in Ontario, is not endangered, but is likely to become endangered if steps are not taken to address factors threatening it.
- **Special Concern:** A species is classified as special concern if it lives in the wild in Ontario, is not endangered or threatened, but may become threatened or endangered due to a combination of biological characteristics and identified threats.

There are two key protection provisions in the Endangered Species Act, 2007:

- Subsection 9(1) prohibits the killing, harming, harassment, capture, taking, possession, transport, collection, buying, selling, leasing, trading or offering to buy, sell, lease or trade species listed as extirpated, endangered or threatened on the SARO List
- Section 10 prohibits the damage or destruction of the habitat of an endangered or threatened species on the SARO list, and may also apply to the habitat of extirpated species through a specific regulation. Habitat protection for some endangered or threatened species is being phased in over five years, beginning in 2008.

The act allows for some flexibility in balancing social, economic, and cultural considerations with the protection and recovery of Ontario's species at risk and their habitats. This enables the Ministry of Natural Resources, using various tools, to permit activities that would otherwise be prohibited by sections 9 or 10 of the act. The flexibility tools that may be available for renewable energy projects are discussed in more detail in the Endangered Species Act, 2007 Authorizations (Permits and Agreements) section of this appendix.

### **Determining whether a species is protected under the Endangered Species Act, 2007**

The SARO List identifies the status of species at risk in Ontario as extirpated, endangered, threatened, or of special concern.

<http://ww.mnr.gov.on.ca/en/Business/Species/2ColumnSubPage/246809.html>

Any species that is classified as extirpated, endangered or threatened is protected under section 9 of the Endangered Species Act, 2007 and therefore any potential negative effects to these species must either be avoided or an authorization under the Endangered Species Act, 2007 (e.g., permit) will be required as a part of the project approvals.

### **Determining whether the habitat of a species is protected under the Endangered Species Act, 2007**

Under the Endangered Species Act, 2007, habitat of threatened and endangered species may be protected based on the general definition in the Act (an area on which a species depends directly or indirectly to carry on its life processes) or based on the habitat prescribed for that species in regulation. Only one definition will apply to a species at any given time, therefore once a habitat regulation is in place, the habitat for that species is as described in the regulation. The habitat of extirpated species may only be protected through a specific regulation.

Habitat protection for some endangered or threatened species is being phased in over a 5 year period (2008-2013). During the phase-in period (i.e. until June 30, 2013), if there is no specific habitat regulation prepared for these endangered or threatened species, the proponent should contact the Ministry to determine whether the general habitat protection provisions currently apply to that species.

Subsection 10(1) prohibits the damage or destruction of the habitat of an endangered or threatened species on the SARO list. Therefore, an authorization under the Endangered Species Act, 2007 (i.e. permit or agreement) will be required as a part of the project approval when protected habitat may be damaged or destroyed as a result of the project.

Habitat protection will apply to all endangered and threatened species on or before June 30, 2013 and will apply to projects that have received previous approvals. Therefore, most renewable energy projects will need to be designed/developed in a manner that either avoids the damage or destruction of all endangered and threatened species habitat, or mitigates negative effects in a

manner that will enable the proponent to obtain an Endangered Species Act, 2007 authorization at the time habitat protection comes into force.

The following guidance discusses habitat protection in more detail:

- Species at Risk Policy 4.1: Habitat protection for endangered, threatened and extirpated species under the Endangered Species Act, 2007
- Species at Risk Bulletin 4.2: Explanation of key terms relating to habitat identification, description and protection under the Endangered Species Act, 2007

### **Addressing Potential Changes to the SARO List**

Proponents must also take into consideration that the SARO List is not static. COSSARO meets regularly to assess the status of species and submits reports to the Minister of Natural Resources classifying species as "at risk" and may also submit reports indicating a species is not at risk, or that there is not enough information available to classify a species. Within 3 months of receiving a report from COSSARO, the Ministry must file a regulation to amend the SARO list accordingly. Any species protection or habitat protection associated with the new classification applies as soon as the SARO list is amended and any potential negative effects to these species and habitat must either be avoided or an authorization under the Endangered Species Act, 2007 (e.g., permit) will be required before the activity may proceed, even if the project has previously been approved.

### **Determining the Presence of Species at Risk and Their Habitats**

In order to assess whether or not a renewable energy project has the potential to negatively affect species or habitat protected under the Endangered Species Act, 2007, proponents will first need to determine whether protected species and/or habitat are present on, or in the vicinity of, the site of the proposed project.

The Natural Heritage Information Centre (NHIC) website ([http://nhic.mnr.gov.on.ca/nhic\\_.cfm](http://nhic.mnr.gov.on.ca/nhic_.cfm)) is the province's central database for reported sightings of species at risk. Proponents should use this resource as a first step toward determining where species at risk have been documented, with the understanding that the database does not represent a complete record of all species at risk occurrences in Ontario. Proponents should also work closely with the Ministry's District office to confirm information regarding documented occurrences of protected species and protected habitat.

As there is no comprehensive data source documenting all occurrences and locations of species at risk and their habitats, the NHIC database and the Ministry's District office are only preliminary information sources. Where there is a reasonable expectation that protected species or protected habitat are present, proponents may be required to carry out site assessments to confirm the presence of one or more protected species and/or protected habitat. The



requirements for site assessments should be discussed with the Ministry's District office prior to submission to ensure that these requirements are fulfilled.

Note: Some research and site assessment activities involving protected species and/or habitat require a permit under the Endangered Species Act, 2007 prior to carrying out the work. This would include any assessment that involves an activity that is prohibited under section 9 or 10 (e.g., capture, collection, possession, etc of a protected species; damage or destruction of protected habitat). Generally, these activities may be authorized through a Protection or Recovery Permit issued under clause 17(2)(b) of the Endangered Species Act, 2007. As this work would be carried out prior to submitting the renewable energy complete submission package, the application for a Protection or Recovery Permit would be submitted separately. Complete submission requirements for a Protection or Recovery Permit should be discussed with the Ministry's District office.

## **Endangered Species Act, 2007 Authorizations**

For renewable energy projects, there are two types of permits that may be applicable:

- An Overall Benefit Permit issued under clause 17(2)(c) permit, where the proponent can demonstrate, to the satisfaction of the Ministry, that:
  - they can offset the negative effects of the project by taking additional actions that will result in an overall benefit to each individual species negatively affected by the project within a reasonable time,
  - reasonable alternatives have been considered, including alternatives that would not negatively affect the species, and the best alternative has been adopted, and
  - they are taking reasonable steps to minimize negative effects on individual members of the species.
- A Significant Social or Economic Benefit Permit issued under clause 17(2)(d) permit, where the proponent can demonstrate, to the satisfaction of the Ministry, that:
  - the project will result in a significant social or economic benefit to Ontario,
  - the negative effects of the project will not jeopardize the survival or recovery the species in Ontario,
  - reasonable alternatives have been considered, including alternatives that would not negatively affect the species, and the best alternative has been adopted, and
  - they are taking reasonable steps to minimize negative effects on individual members of the species.

Note that the established timeframe for renewable energy approvals does not apply where a proponent is seeking a 'significant social or economic benefit permit', as Lieutenant Governor in Council approval is required prior to the issuance of this type of permit.

Some waterpower facilities that are subject to this requirements document may be eligible to enter into an agreement with the Minister with respect to species at risk under section 11 of O. Reg. 242/08. This type of agreement would provide for the operation of the facility while minimizing negative effects on one or more species. Proponents must first consult with the Ministry's District office to determine whether or not the project would qualify for this type of agreement

These agreements must:

- require reasonable steps be taken to minimize negative effects on the species to which the agreement applies;
- provide that the operation of the station will not jeopardize the survival or recovery of the species in Ontario;
- not conflict with the Minister's obligation to ensure the implementation of certain protection and recovery actions under s.11(9) of the Act; and
- provide for monitoring the effects of the operation of the station on the species.

### **Requirements for an Endangered Species Act, 2007 Permit/Agreement**

Proponents must work directly with the Ministry's District office to discuss and review the content prior to finalizing the complete submission.

### **General Requirements for All Complete Submissions Involving an Endangered Species Act, 2007 Authorization:**

- Proponent/Landowner Details
- Description of Lands and Facilities
- Description of Activity:
  - Broad description of the activity(s) (e.g. site preparation, road construction) requiring authorization under the Endangered Species Act, 2007. Where multiple activities require authorization, identify each activity. Include all activities that have a reasonable expectation of negatively affecting a protected species or protected habitat throughout the project's entire life cycle.
- Details of activities for which authorization is required
- For each activity requiring authorization:
  - Detailed description of the activity including purpose, timing, duration, how it fits into the overall project, etc;
  - Identification of each species at risk protected by the Endangered Species Act, 2007 that will be negatively affected by the activity, its current classification (e.g. extirpated, endangered, threatened), whether authorization is required under

section 9 (species protection), 10 (habitat protection), or both for that specific species;

- Details regarding the species occurrences such as date, location and frequency of occurrences. Each occurrence should be identified on a map, in a way that it is easily identifiable;
  - Detailed description of methodology (survey description, timing, etc), specific to each species, utilized to identify and confirm the presence, abundance and distribution of any species at risk and/or habitat that occur in the immediate geographic area. This description must include the qualifications of individuals carrying out this assessment and any surveys; and
  - Clear description of the timing, duration, intensity, and extent of the negative effects on each individual species and/or habitat.
- Assessment of the relationship between the proposed activity and any statement(s) published under subsection 11(8) of the Endangered Species Act, 2007 with respect to a recovery strategy for the species specified in the permit.\

<http://www.mnr.gov.on.ca/en/Business/Species/index.html>

### **Requirements specific to overall benefit permits [clause 17(2)(c)]**

- For each species affected by the activity(s), detailed proposal of how an overall benefit to the species will be achieved within a reasonable time, including:
  - Detailed description of actions that will be taken to achieve overall benefit to the species;
  - Description of the methodology used in the preparation of the proposal to determine that the actions will provide an overall benefit to the species, including references for information sources;
  - For longer term projects, a description of timelines and phasing of the overall benefit actions and how they will be conducted in relation to the activities causing negative effects to the species;
  - Measurable indicators and milestones that will be used to demonstrate overall benefit has been or will be achieved;
  - Proposed monitoring and reporting programs;
  - Qualifications of the person(s) who prepared the proposal;
- Describe any mitigation, avoidance, or other actions that will be employed to minimize negative effects on individual members of the species; and

- Describe reasonable alternatives to the proposed activities, including alternatives that would not negatively affect the species, and present an analysis that explains the rationale for why the alternative adopted is the best alternative.

### **Requirements specific to significant social or economic benefit permits [clause 17(2)(d)]**

Detailed analysis of the social and/or economic benefits of the project/activity, describing the timing, duration, intensity, and extent of the benefits, including;

- Description of the methodologies or modeling techniques used in generating estimates or projections, including references for information sources;
- Explanation of how the identified social and/or economic benefits are significant to Ontario;
- The qualifications of the person(s) who prepared the analysis;

For each species identified as requiring an authorization under the Endangered Species Act, 2007 an analysis of whether the predicted negative effects of the proposed activity will jeopardize the survival or recovery of the species in Ontario. The analysis should include:

- a description of the current condition of the species in Ontario (e.g., current conservation status, geographic distribution, population demographics, etc.);
- consideration of any recovery goals, objectives, and recovery actions established through a formal recovery planning process;
- an assessment of how the proposed activity(ies) will affect the species' future survival and recovery in Ontario, given the assessment of the effects of the proposed activity and associated mitigation measures on the viability of the affected population(s) or habitats;
- description and citation of any scientific methodologies used in the analysis;
- the technical/professional qualifications of the person(s) conducting the analysis;
- Describe any mitigation, avoidance, or other actions that will be employed to minimize negative effects on individual members of the species; and
- Describe reasonable alternatives to the proposed activities, including alternatives that would not negatively affect the species, and present an analysis that explains the rationale for why the alternative adopted is the best alternative.

### **Requirements specific to section 11 agreements under O. Reg. 242/08 (operation of waterpower facilities only, subject to eligibility)**

- For each species affected by the activity(s), describe in detail any proposed avoidance, mitigation or other measures that will be used to minimize negative effects of the operation of the station on the species.
- For each species identified as requiring an authorization under the Endangered Species Act, 2007 an analysis of whether the predicted negative effects of the proposed activity will jeopardize the survival or recovery of the species in Ontario. The analysis should include:
  - a description of the current condition of the species in Ontario (e.g., current conservation status, geographic distribution, population demographics, etc.);
  - consideration of any recovery goals, objectives, and recovery actions established through a formal recovery planning process;
  - an assessment of how the proposed activity(ies) will affect the species' future survival and recovery in Ontario, given the assessment of the effects of the proposed activity and associated mitigation measures on the viability of the affected population(s) or habitats;
  - description and citation of any scientific methodologies used in the analysis; and
  - the technical/professional qualifications of the person(s) conducting the analysis.
- Describe in detail the proposed approach for monitoring the effects of the operation of the station on the species including protocols for data collection, analysis and reporting.

## Appendix C Conservation Authorities

Ontario's Conservation Authorities administer the *Conservation Authorities Act*. The areas covered by the 36 Conservation Authorities reflect local watersheds in parts of Ontario.

Through the act, Conservation Authorities regulate development and activities in river or stream valleys, the shorelines of the Great Lakes and other large inland lakes, hazardous lands and wetlands. Within these areas Conservation Authorities' mandate includes the control of flooding, erosion, dynamic beaches, or pollution; the straightening, changing, diverting or interfering in any way with the existing channel of a river, creek, stream or watercourse; and changing or interfering in any way with a wetland.

Proposed renewable energy projects that would have an effect on lands regulated by a Conservation Authority require the authority's permission. Proponents should contact the local Authority early in the project planning process to discuss potential permitting requirements. For more information on Conservation Authorities, including maps identifying where Conservation Authorities are located see Conservation Ontario's website at: <http://www.conservation-ontario.on.ca>

## Appendix D Niagara Escarpment Plan Area

Where a project is located within an area of development control established by regulation made under the Niagara Escarpment Planning and Development Act, and the proposed development is not exempt under the regulations, a proponent is required to demonstrate that the proponent has applied for and met the requirements for a development permit to the satisfaction of the Niagara Escarpment Commission, before the government will consider a submission to be complete.

## Appendix E Reference sources

<p><b>Reference:</b> Water Management Planning Guidelines for Waterpower  <b>Type:</b> Provincial Guideline  <b>Description:</b> Identifies requirements for the preparation or amendment of a Water Management Plan.  <b>Project Type:</b> Waterpower  <b>Link:</b> <a href="http://www.mnr.gov.on.ca/251983.pdf">http://www.mnr.gov.on.ca/251983.pdf</a></p>
<p><b>Reference:</b> Lakes and Rivers Improvement Technical Guidelines  <b>Type:</b> Provincial Guideline  <b>Description:</b> Sets out review and approvals for activities that occur on or around lakes and rivers.  <b>Project Type:</b> Waterpower  <b>Link:</b> <a href="http://www.ontla.on.ca/library/repository/mon/9000/246477.pdf">http://www.ontla.on.ca/library/repository/mon/9000/246477.pdf</a></p>
<p><b>Reference:</b> Crown Land Use Policy Atlas (CLUPA)  <b>Type:</b> Provincial Information Resource  <b>Description:</b> Provides information on area specific land use policies.  <b>Project Type:</b> All renewable energy projects.  <b>Link:</b> <a href="http://crownlanduseatlas.mnr.gov.on.ca/">http://crownlanduseatlas.mnr.gov.on.ca/</a></p>
<p><b>Reference:</b> Natural Heritage Reference Manual  <b>Type:</b> Provincial Guideline  <b>Description:</b> Provides guidance related to the evaluation of natural heritage values.  <b>Project Type:</b> All renewable energy projects.  <b>Link:</b> <a href="http://www.mnr.gov.on.ca/249080.pdf">http://www.mnr.gov.on.ca/249080.pdf</a></p>
<p><b>Reference:</b> Significant Wildlife Habitat Technical Guide  <b>Type:</b> Provincial Guideline  <b>Description:</b> Provides detailed information to help define significant wildlife habitat.  <b>Project Type:</b> All renewable energy projects.  <b>Link:</b> <a href="http://www.mnr.gov.on.ca/MNR_E001285.pdf">http://www.mnr.gov.on.ca/MNR_E001285.pdf</a></p>
<p><b>Reference:</b> Application Review and Land Disposition Policy – Appendix A – Lake Trout Lakes  <b>Type:</b> Provincial Policy  <b>Description:</b> Provides direction for the disposition of Crown land that could impact lake trout lakes.  <b>Project Type:</b> All renewable energy projects.  <b>Link:</b> <a href="http://www.mnr.gov.on.ca/255939.pdf">http://www.mnr.gov.on.ca/255939.pdf</a></p>
<p><b>Reference:</b> Great Lakes Conservation Blueprint for Terrestrial Biodiversity  <b>Type:</b> Provincial Information Resource  <b>Description:</b> Ecoregion assessment of the terrestrial biodiversity of the Great Lakes Ecoregion.  <b>Project Type:</b> All renewable energy projects.  <b>Link:</b> <a href="http://nhic.mnr.gov.on.ca/MNR/nhic/projects/conservation_blueprint/blueprint_main.cfm">http://nhic.mnr.gov.on.ca/MNR/nhic/projects/conservation_blueprint/blueprint_main.cfm</a></p>
<p><b>Reference:</b> Great Lakes Conservation Blueprint for Aquatic Biodiversity  <b>Type:</b> Provincial Information Resource  <b>Description:</b> Ecoregion assessment of the aquatic biodiversity of the Great Lakes Ecoregion.</p>

<p><b>Project Type:</b> All renewable energy projects.  <b>Link:</b> <a href="http://nhic.mnr.gov.on.ca/MNR/nhic/projects/conservation_blueprint/blueprint_main.cfm">http://nhic.mnr.gov.on.ca/MNR/nhic/projects/conservation_blueprint/blueprint_main.cfm</a></p>
<p><b>Reference:</b> Aggregate Resource Inventory Paper  <b>Type:</b> Provincial Information Resource  <b>Description:</b> Report detailing aggregate resources from Ontario Geological Survey.  <b>Project Type:</b> All renewable energy projects.  <b>Link:</b> <a href="http://www.mndm.gov.on.ca/mines/ogs/ims/pub/digcat/arims_e.asp">http://www.mndm.gov.on.ca/mines/ogs/ims/pub/digcat/arims_e.asp</a></p>
<p><b>Reference:</b> Understanding Natural Hazards  <b>Type:</b> Provincial Guideline  <b>Description:</b> Assists the public and planning authorities with natural hazards policies.  <b>Project Type:</b> All renewable energy projects.  <b>Link:</b> <a href="http://www.mnr.gov.on.ca/MNR_E002317.pdf">http://www.mnr.gov.on.ca/MNR_E002317.pdf</a></p>
<p><b>Reference:</b> Recovery Strategy Plans  <b>Type:</b> Information Resource  <b>Description:</b> Provides advice regarding the steps to recover species at risk.  <b>Project Type:</b> All renewable energy projects.  <b>Link:</b> <a href="http://www.mnr.gov.on.ca/en/Business/Species/index.html">http://www.mnr.gov.on.ca/en/Business/Species/index.html</a></p>
<p><b>Reference:</b> Wildlife Policies, Procedures and Management Plans  <b>Type:</b> Provincial Information Resource  <b>Description:</b> Provides advice in management of wildlife species and their habitats.  <b>Project Type:</b> All renewable energy projects.  <b>Link:</b> <a href="http://www.mnr.gov.on.ca/en/Business/FW/index.html">http://www.mnr.gov.on.ca/en/Business/FW/index.html</a></p>
<p><b>Reference:</b> Fisheries Management Zone  <b>Type:</b> Information Resource  <b>Description:</b> Administrative area used for fishery management to monitor and assess fish populations.  <b>Project Type:</b> All renewable energy projects.  <b>Link:</b> <a href="http://www.mnr.gov.on.ca/en/Business/LetsFish/2ColumnSubPage/198481.html">http://www.mnr.gov.on.ca/en/Business/LetsFish/2ColumnSubPage/198481.html</a></p>
<p><b>Reference:</b> Environmental Guidelines for Access Roads and Water Crossings  <b>Type:</b> Provincial Guideline  <b>Description:</b> Provides guidance for those involved with access roads and water crossings on Crown land.  <b>Project Type:</b> All renewable energy projects.  <b>Link:</b> <a href="http://www.web2.mnr.gov.on.ca/mnr/forests/public/guide/roads%20&amp;%20water%20crossings/toc.pdf">http://www.web2.mnr.gov.on.ca/mnr/forests/public/guide/roads%20&amp;%20water%20crossings/toc.pdf</a></p>
<p><b>Reference:</b> Modifying Industrial Operations Protocol  <b>Type:</b> Provincial Protocol  <b>Description:</b> Provide direction to industrial operators for the prevention and suppression of wildfires.  <b>Project Type:</b> All renewable energy projects.  <b>Link:</b> <a href="http://www.mnr.gov.on.ca/MNR_E000014.pdf">http://www.mnr.gov.on.ca/MNR_E000014.pdf</a></p>
<p><b>Reference:</b> Guidelines to Assist in the Review of Windpower Proposals (Birds and Bats)  <b>Type:</b> Provincial Guideline  <b>Description:</b> Provides best practices to help ensure birds, bats and their habitats are adequately considered.  <b>Project Type:</b> Windpower</p>



<p><b>Link:</b> <a href="http://www.mnr.gov.on.ca/en/Business/Renewable/2ColumnSubPage/199436.html">http://www.mnr.gov.on.ca/en/Business/Renewable/2ColumnSubPage/199436.html</a></p>
<p><b>Reference:</b> Fish Habitat Referral Protocol for Ontario  <b>Type:</b> Federal and Provincial Protocol  <b>Description:</b> Provides guidance to agencies that have responsibility for the impacts to fish or fish habitat.  <b>Project Type:</b> All renewable energy projects.  <b>Link:</b> <a href="http://www.mnr.gov.on.ca/264110.pdf">http://www.mnr.gov.on.ca/264110.pdf</a></p>
<p><b>Reference:</b> Wind Turbines and Birds: A Guidance Document for Environmental Assessment  <b>Type:</b> Federal Guideline  <b>Description:</b> Defines Environment Canada's expectations to address the potential effects on birds.  <b>Project Type:</b> Windpower  <b>Link:</b> <a href="http://www.bape.gouv.qc.ca/sections/mandats/eole_matane/documents/DB15.pdf">http://www.bape.gouv.qc.ca/sections/mandats/eole_matane/documents/DB15.pdf</a></p>
<p><b>Reference:</b> Earth and Life Science Check Sheets  <b>Type:</b> Provincial Information Resource  <b>Description:</b> Assists with the collection of physical data for the ANSI assessment.  <b>Project Type:</b> All renewable energy projects.  <b>Link:</b> <a href="http://www.ontarioparks.com/english/planning_pdf/ansi/ansi_procedure.pdf">http://www.ontarioparks.com/english/planning_pdf/ansi/ansi_procedure.pdf</a></p>
<p><b>Reference:</b> Ontario's Biodiversity Strategy  <b>Type:</b> Provincial Strategy  <b>Description:</b> Sets out goals and a vision for Ontario's biodiversity, discusses threats and opportunities.  <b>Project Type:</b> All renewable energy projects.  <b>Link:</b> <a href="http://www.mnr.gov.on.ca/MNR_E000066.pdf">http://www.mnr.gov.on.ca/MNR_E000066.pdf</a></p>
<p><b>Reference:</b> Our Sustainable Future  <b>Type:</b> MNR Organizational Strategy  <b>Description:</b> Guides the ministry's activities to ensure that it is well positioned to deliver on its mandate.  <b>Project Type:</b> All renewable energy projects.  <b>Link:</b> <a href="http://www.mnr.gov.on.ca/MNR_E000002.pdf">http://www.mnr.gov.on.ca/MNR_E000002.pdf</a></p>
<p><b>Reference:</b> Ministry of Northern Development and Mines (MNDM) Claim Maps  <b>Type:</b> Provincial Information Resource  <b>Description:</b> Provides information on mining claims in Ontario.  <b>Project Type:</b> All renewable energy projects.  <b>Link:</b> <a href="http://www.mndm.gov.on.ca/mines/lands/claimap3/default_e.asp">http://www.mndm.gov.on.ca/mines/lands/claimap3/default_e.asp</a></p>
<p><b>Reference:</b> Ontario Wind Resource Atlas  <b>Type:</b> Provincial Information Resource  <b>Description:</b> Web base tool highlighting the wind resource for the province.  <b>Project Type:</b> All renewable energy projects.  <b>Link:</b> <a href="http://www.ontariowindatlas.ca">http://www.ontariowindatlas.ca</a></p>
<p><b>Reference:</b> Guideline for Renewable Energy Projects In or Near Water  <b>Type:</b> Provincial Guideline  <b>Description:</b> Provides guidance and best practices to ensure sustainable development of projects.  <b>Project Type:</b> All renewable energy projects.</p>

<p><b>Link:</b> <a href="http://publicdocs.mnr.gov.on.ca/View.asp?Document_ID=12213&amp;Attachment_ID=24363">http://publicdocs.mnr.gov.on.ca/View.asp?Document_ID=12213&amp;Attachment_ID=24363</a></p>
<p><b>Reference:</b> Provincial Policy Statement, 2005  <b>Type:</b> Provincial Policy  <b>Description:</b> Provides direction on matters of provincial interest related to land use planning and development.  <b>Project Type:</b> All renewable energy projects.  <b>Link:</b> <a href="http://www.mah.gov.on.ca/Page215.aspx">http://www.mah.gov.on.ca/Page215.aspx</a></p>
<p><b>Reference:</b> Temperate Wetlands Restoration Guideline (March 1998)  <b>Type:</b> Provincial Guideline  <b>Description:</b> Provides guidance in the restoration of wetlands.  <b>Project Type:</b> All renewable energy projects.  <b>Link:</b> TBD</p>
<p><b>Reference:</b> Strategic Plan for Ontario's Fisheries II  <b>Type:</b> Provincial Policy  <b>Description:</b> Provides a long-term plan for managing Ontario's fisheries resources.  <b>Project Type:</b> All renewable energy projects.  <b>Link:</b> <a href="http://www.mnr.gov.on.ca/en/Business/LetsFish/2ColumnSubPage/STEL02_165902.html">http://www.mnr.gov.on.ca/en/Business/LetsFish/2ColumnSubPage/STEL02_165902.html</a></p>
<p><b>Reference:</b> Navigational charts  <b>Type:</b> Federal Information Resource  <b>Description:</b> Provides information about water depth, obstructions and other dangers to navigation.  <b>Project Type:</b> All water-based renewable energy projects.  <b>Link:</b> <a href="http://www.fedpubs.com/charts.htm">http://www.fedpubs.com/charts.htm</a></p>
<p><b>Reference:</b> Recommended Protocols for Monitoring Impacts of Wind Turbines on Birds  <b>Type:</b> Federal Guideline  <b>Description:</b> Provides guidance on protocols for studies and follow-up monitoring to evaluate impacts on birds.  <b>Project Type:</b> Windpower  <b>Link:</b> <a href="http://www.cws-scf.ec.gc.ca/publications/eval/prot/index_e.cfm">http://www.cws-scf.ec.gc.ca/publications/eval/prot/index_e.cfm</a></p>
<p><b>Reference:</b> Species at Risk Policy 4.1: Habitat protection for endangered, threatened and extirpated species under the Endangered Species Act, 2007  <b>Type:</b> Provincial Policy  <b>Description:</b> Provides direction relating to habitat protection for endangered, threatened and extirpated species  <b>Project Type:</b> All  <b>Link:</b> <a href="http://www.mnr.gov.on.ca/249941.pdf">http://www.mnr.gov.on.ca/249941.pdf</a></p>
<p><b>Reference:</b> Species at Risk Bulletin 4.2: Explanation of key terms relating to habitat identification, description and protection under the Endangered Species Act, 2007  <b>Type:</b> Provincial Policy  <b>Description:</b> Provides explanation of key terms relating to habitat identification, description and protection  <b>Project Type:</b> All  <b>Link:</b> <a href="http://www.mnr.gov.on.ca/249942.pdf">http://www.mnr.gov.on.ca/249942.pdf</a></p>
<p><b>Reference:</b> Species at Risk Act, Schedule 1 (List of Wildlife Species at Risk)  <b>Type:</b> Federal Legislation</p>

**Description:** List of extirpated, endangered, threatened and special concern species under the Federal Species at Risk Act

**Project Type:** All

**Link:** [http://www.sararegistry.gc.ca/species/schedules\\_e.cfm?id=1](http://www.sararegistry.gc.ca/species/schedules_e.cfm?id=1)

**Reference:** Wildlife Policy 6.2.4 Authorization of destruction of a beaver dam, black bear or furbearer den

**Type:** Provincial Policy

**Description:** Provides direction on the application for and authorization of the destruction of a beaver dam, black bear or furbearer den

**Project Type:** All

**Link:** [http://documents.mnr.gov.on.ca/Document/View.asp?Document\\_ID=7632](http://documents.mnr.gov.on.ca/Document/View.asp?Document_ID=7632)

**Reference:** Wildlife Policy 6.2.5 Authorization of destruction/possession of nests and eggs

**Type:** Provincial Policy

**Description:** Provides direction on the application for and authorization of the destruction/possession of nests and eggs

**Project Type:** All

**Link:** [http://documents.mnr.gov.on.ca/Document/View.asp?Document\\_ID=7618](http://documents.mnr.gov.on.ca/Document/View.asp?Document_ID=7618)

## Appendix F Federal approvals

Approvals, authorizations and/or permits may need to be obtained from federal agencies that have a regulatory responsibility for reviewing projects. There are instances where the Ministry is unable to issue authorizations prior to the proponent receiving approvals from other agencies. Early consultation and involvement of these agencies is paramount to fulfilling documentation requirements efficiently. Federal agencies and the permitting/approvals processes for which they are responsible are outlined below.

Works in or near water will not be authorized by the Ministry until relevant approvals/authorizations have been granted by federal agencies. These may include:

**Fisheries and Oceans Canada:** The federal government, through Fisheries and Oceans Canada has a constitutional responsibility for seacoast and inland fisheries. Specific responsibilities for the management and protection of fish, fish habitat and promotion of fish passage appear in sections 20 to 22, 30, 32, 35 and 37 of the Fisheries Act. Fish habitat includes spawning grounds and nursery, rearing, food supply and migration areas on which fish depend directly or indirectly in order to carry out their life processes (Section 34(1) of the Fisheries Act).

Under the Fisheries Act, no one may carry out any work or undertaking that results in the harmful alteration, disruption or destruction of fish habitat, unless this has been authorized by the Minister of Fisheries and Oceans Canada. Where adverse effects to fish habitat cannot be avoided through project relocation, redesign or mitigation, habitat compensation may be required, and a subsection 35(2) Fisheries Act authorization issued. Where the harmful alteration, disruption or destruction of fish habitat is not acceptable, the authorization may be refused.

An authorization under section 32 and subsection 35(2) of the Fisheries Act is usually a regulatory trigger for an environmental assessment under the Canadian Environmental Assessment Act. The Canadian Environmental Assessment Act requirements must be completed prior to making a decision on whether to issue an authorization.

A number of aquatic species have been identified as Extirpated, Endangered, Threatened or Special Concern under the federal Species at Risk Act and must be considered prior to commencing work in and around water. In addition to meeting the requirements of the Fisheries Act, all projects in and around water must be in compliance with the federal Species at Risk Act.

Fisheries and Oceans Canada has partnering arrangements with Conservation Authorities and the Ministry of Natural Resources. Where there are agreements with Conservation Authorities in place, initial requests for the review of projects in or around water that may affect fish and fish

habitat are referred to the local Conservation Authority. Therefore, Conservation Authorities are the first point of contact for the majority of projects in and around water in Ontario. Depending on the level of agreement, Conservation Authorities will undertake an initial review of the project, provide mitigation advice and/or review habitat compensation plans. Projects requiring review, Fisheries Act authorization and/or assessment under the Canadian Environmental Assessment Act are forwarded to Fisheries and Oceans Canada.

In cases where there is no Conservation Authority, the local Ministry office is the first point of contact for the review of projects in and around water that may affect fish and fish habitat.

**Transport Canada:** The Navigable Waters Protection Program (administered by Transport Canada) is responsible for safeguarding the navigability of all waters including coastal and inland waterways throughout the province, and ensuring the safety of marine navigation with due consideration to the environment. Under the provisions of the Navigable Waters Protection Act, it is unlawful to construct or place a work in a navigable waterway without the approval of Transport Canada. A Letter of Approval may be required by Transport Canada depending on the class of waterway or works involved. The Ministry will not issue authorizations until this approval is granted.

**Environment Canada:** Under the Federal Species at Risk Act, there are prohibitions against the killing, harming, harassing or taking of endangered, threatened and extirpated species listed in Schedule 1 of Species at Risk Act and against the damage or destruction of their residences (e.g., nest or den). These prohibitions apply to:

- species listed in Schedule 1 of Species at Risk Act found on federal lands such as national parks, national wildlife areas, Prairie Farm Rehabilitation Administration pastures, Aboriginal reserve lands and military training areas;
- all aquatic species listed in Schedule 1 of Species at Risk Act, anywhere they occur; and
- all migratory birds listed in the Migratory Birds Convention Act, 1994 and listed in Schedule 1 of Species at Risk Act, anywhere they occur.

It is particularly important for any proponent of a renewable energy project to consider the impact of its construction and operation on any species that may be designated as a species at risk under that Act and to deal with Environment Canada should any possible impact be identified.