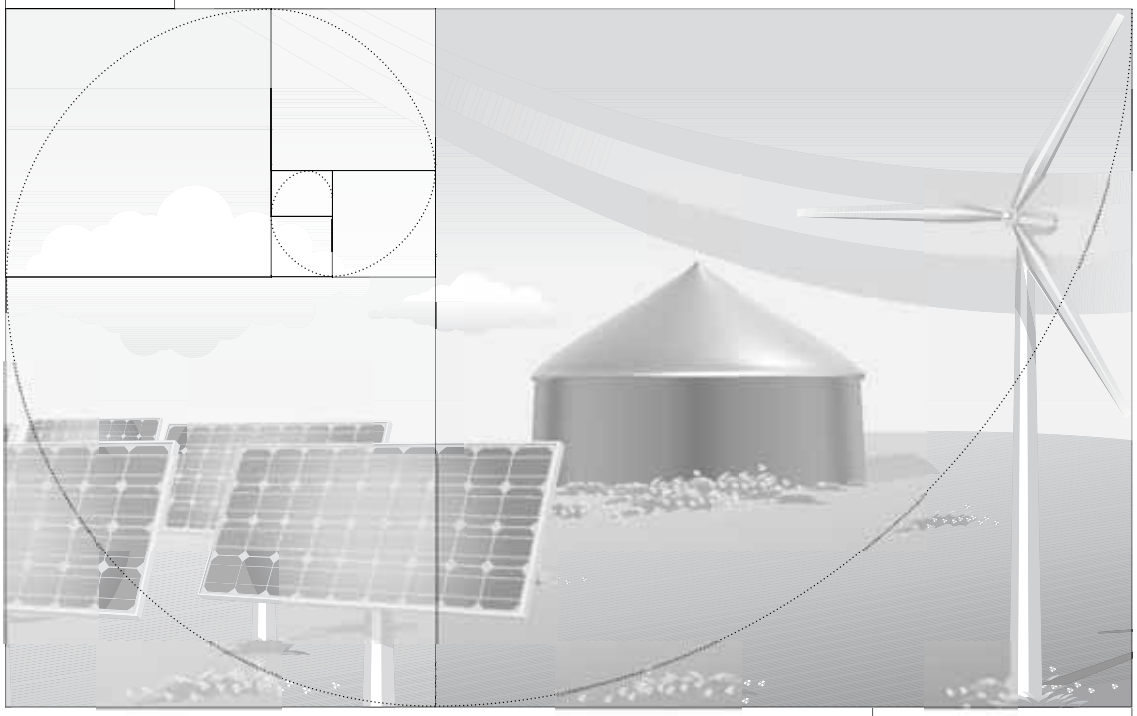
Technical Guide to **Renewable Energy** Approvals



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List of Acronyms/Terms

AD	Anaerobic Digestion
ANSI	Area of Natural and Scientific Interest
CA	Conservation Authority
CEA Agency	Canadian Environmental Assessment Agency
CSA	Canadian Standards Association
dB, dBA	Decibel, dBA refers to "A-weighted" decibels
DC-STC	Direct Current – Standard Test Conditions – A standard measurement of solar photovoltaic module nameplate capacity
DFO	Fisheries and Oceans Canada – (formerly known as Department of Fisheries and Oceans)
DPR	Decommissioning Plan Report – One of the required reports for most REA applications.
EA	Environmental Assessment
EBR	Environmental Bill of Rights
EC	Environment Canada
ECA	Environmental Compliance Approval
EEMP	Environmental Effects Monitoring Plan
ERT	Environmental Review Tribunal
ESA	Electrical Safety Authority
ESDM Report	Emission Summary and Dispersion Modelling Report
FIT (FIT Program)	Feed-in Tariff Program – A program run in Ontario by the OPA which provides standard pricing and standardized rules in order to promote the development of renewable energy projects.
Grid	The provincial transmission grid is a network of power stations, transmission circuits, and substations.
IESO	Independent Electrical System Operator
km	Kilometre
kW	Kilowatt
LDC	Local Distribution Company (e.g., Chatham-Kent Hydro, Toronto Hydro, Cornwall Electric, Hydro One)
m	Metre
MNR	Ontario Ministry of Natural Resources
MOE	Ontario Ministry of the Environment
MTCS	Ontario Ministry of Tourism, Culture and Sport
MTO	Ontario Ministry of Transportation
MW	Megawatt
NEC	The Niagara Escarpment Commission
NEP	Niagara Escarpment Plan
NHA	Natural Heritage Assessment
NMP	Nutrient Management Plan – A plan required under the Nutrient Management Act.
NMS	Nutrient Management Strategy – A requirement under the Nutrient Management Act.
OEB	Ontario Energy Board
OMAFRA	Ontario Ministry of Agriculture, Food and Rural Affairs
OPA	Ontario Power Authority
PDR	Project Description Report – One of the required reports for all REA applications.
PTTW	Permit to Take Water
REA	The Renewable Energy Approval issued under Ontario Regulation 359/09
REFO	Renewable Energy Facilitation Office
UTM	Universal Transverse Mercator – A geographic coordinate system that can be used to measure horizontal distances.

Chapter 1

Overview of the Renewable Energy Approval (REA) application process and the requirements for submitting a complete application

1. Purpose of this Technical Guide

This guide has been developed to provide detailed information on the requirements for submitting a complete application for a Renewable Energy Approval (REA) under O. Reg. 359/09 of the Environmental Protection Act. This introductory chapter will provide an overview of the application process and general requirements of the REA regulation. Chapter 2 provides a detailed explanation of all the consultation requirements under O. Reg. 359/09, as well as how to prepare the Consultation Report. Chapter 3 provides greater detail on wind turbine setback distances and related regulatory requirements that apply to most wind energy facilities. The subsequent chapters (4 to 9) detail the specific information needed to prepare the reports that may be required for a complete submission for an REA. Chapter 10 describes requirements for making changes to a project. The final chapter, Chapter 11, provides advice to applicants on how to be a good neighbour in their local community by going beyond the minimum requirements of O. Reg. 359/09.

Disclaimer Regarding Legal Advice

While this technical guide is written to provide information on the application requirements, it is not, and it should not be construed or relied on as legal advice about the requirements. Readers are cautioned that the requirements are contained in legislation, including the requirements relating to REA applications and renewable energy projects which are contained in Part V.0.1 of the Environmental Protection Act and O. Reg. 359/09. Readers are encouraged to review this legislation, which can be found at Ontario's e-laws website at www.e-laws.gov.on.ca by searching for "359/09". Specific references to sections of O. Reg. 359/09 are made throughout this guide and readers are recommended to have access to a copy of the regulation itself to refer to the exact legal language when reading. In addition to this, readers are recommended to obtain appropriate professional advice when contemplating or preparing an application.

1.1. A Note about Regulatory Amendments and Transition Provisions

It should be noted that certain provisions of O. Reg. 359/09 have been amended as of January 1, 2011, July 1, 2012, and November 2, 2012. For clarity, this technical guide reflects the current regulation as amended. However, for applicants that have issued notices with respect to an REA prior to January 1, 2011 or July 1, 2012, transition provisions apply that may allow for applicants to submit applications that comply with certain requirements that existed prior to the amendments coming into force. Applicants should identify which version of the regulation they are following in their draft reports and REA application submission.

Transition provisions in the July 1, 2012 amended regulation allow proponents who have issued a notice of proposal to engage, or where not applicable, a notice of first public meeting, prior to January 1, 2011 to continue under the 2009/2010 pre-submission rules and retain the ability to elect into the 2011 rules. Alternatively they may elect to follow the new (2012) pre-submission rules.

Those proponents who have issued a notice of proposal to engage, or where not applicable, notice of first public meeting, between January 1, 2011 and July 1, 2012, can continue under the 2011 pre-submission rules or elect to follow the new (2012) pre-submission rules.

A proponent who has not issued a notice of proposal to engage, or where not applicable, a notice of first public meeting, before July 1, 2012, is required to follow the new (2012) pre-submission rules.

Two exceptions exist with regard to the above transitions provisions:

(1) amendments dealing with the participating receptors apply to proponents who have not issued a notice of *final* public meeting, or if a notice is not required, to proponents whose application has not been submitted before July 1, 2012; and

(2) amendments related to the project change process are not subject to transition provisions and are effective immediately.

Applicants are advised to consult Part VIII – Transition of O. Reg. 359/09 to determine how the transition provisions apply to their projects.

Alternate Approvals Processes for Renewable Energy Projects

While the REA is a streamlined approval that takes the place of a number of permits previously issued, there are some alternate approvals processes separate from the REA that could apply depending on the proposal. The Ministry of the Environment (MOE) continues to evaluate whether some renewable energy projects could follow an alternate process to meet the requirements of the REA Regulation.

The MOE has implemented an Environmental Activity and Sector Registry (EASR) as part of its risk-based environmental approvals program which allows businesses to register prescribed activities in the EASR instead of seeking an approval through the normal application and review process. The MOE is allowing developers of certain types of renewable energy projects to take advantage of the EASR. A provision has been added to paragraph 9 (1)10 of O. Reg. 359/09 that exempts persons who engage in a renewable energy project from the obligation to obtain an REA if the project activities are prescribed under the EASR. If eligible for EASR, projects would be required to self-register with the ministry and meet the project specific eligibility and operating requirements instead of going through the full REA process.

Applicants are also recommended to contact the MOE's Environmental Approvals Access and Service Integration Branch at an early stage to discuss their projects or visit the Ministry of Environment's website and/or ServiceOntario website.

1.2. Documents Referenced in this Guide

A number of publications are referenced in this guide as sources of additional guidance. For MOE publications, the full title and publication number are provided to assist readers in locating the documents. To find ministry publications, readers can visit the resources section of the ministry's website at:

http://www.ene.gov.on.ca/environment/en/resources/index.htm

This website includes a search function where the publication number can be inserted to locate a digital copy of the document. Many of the documents can also be found at the renewable energy section of the ministry's website at:

http://www.ene.gov.on.ca/environment/en/subject/renewable_energy/

Guidance documents from other ministries (e.g. the Ministry of Natural Resources) have been cited by providing the full title. Readers seeking these documents should contact the respective ministry to determine how they can be accessed. Appendix 2 contains key contact information.

2. Key Definitions and Interpretations

This section provides definitions for important terms used in this guide as well as key definitions provided in O. Reg.359/09. For definitions that are explicitly defined in regulation, readers are advised to consult the latest version of all pertinent statutes and regulations to obtain current legal definitions. All referenced statutes and regulations can be found at www.e-laws.gov.on.ca.

Applicant

While not defined in regulation, an "applicant" in this guide means a person who proposes to engage in a renewable energy project and apply for an REA. Where a renewable energy project is proposed by a company or organization, "applicant" can reflect the company/organization.

Application

While not defined in regulation, application in this guide means an application for an REA under O. Reg. 359/09.

Aboriginal Consultation List

For brevity, the term Aboriginal Consultation List is used in this guide to mean the list of Aboriginal communities provided by the Director to the applicant for the purposes of Aboriginal consultation as described in clause 14 (1)(b) of O. Reg. 359/09.

Renewable Energy Generation Facility

Under subsection 2 (1) of the Electricity Act, 1998, a "renewable energy generation facility" is a generation facility that generates electricity from a renewable energy source and must meet criteria prescribed by regulation. It includes associated or ancillary equipment, systems and technologies as may also 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.

Under O. Reg. 160/99 (Definitions and Exemptions) made under the Electricity Act, 1998, this definition is expanded in subsections 1 (4) to 1 (6) to stipulate that:

(4) For the purposes of the definition of "renewable energy generation facility" in the Electricity Act, 1998, the following associated or ancillary equipment, systems and technologies are prescribed:

1. Transmission or distribution lines of less than 50 kilometres in length that are associated with or ancillary to a renewable energy generation facility.
2. Transformer stations or distribution stations that are associated with or ancillary to a renewable energy generation facility.
3. Any transportation systems that are associated with or ancillary to the provision of access to a renewable energy generation facility, during the construction, installation, use, operation, changing or retiring of a renewable energy generation facility.

(5) For the purposes of subsection (4), the following apply:

1. A distribution line is associated with or ancillary to a renewable energy generation facility if the line is used to distribute electricity within the facility or from the facility to the distribution system of the distributor in whose distribution service area the renewable energy generation facility is located.
2. A transmission line is associated with or ancillary to a renewable energy generation facility if the line is used to transmit electricity within the facility or from the facility to the IESO-controlled grid.

Renewable Energy Generation Facility *(continued)*

3. A transformer station or distribution station is associated with or ancillary to a renewable energy generation facility if the station is used to transform the voltage of electricity at the facility, on a transmission line or on a distributor's distribution system which is associated with or ancillary to the facility.
4. A transportation system includes all transportation systems constructed solely to provide access to the renewable energy generation facility, including transportation systems on Crown land, but does not include a highway which is intended for or used by the general public for the passage of vehicles.

(6) For the purposes of the definition of "renewable energy generation facility" in the Electricity Act, 1998, the following classes of waste disposal sites are prescribed:

1. A waste disposal site where biomass, source separated organics, or organic matter (other than biomass that is derived from a plant or animal and that is available at a farm operation) is subject to anaerobic digestion.
2. A waste disposal site where biomass is thermally treated.

Thus, the waste disposal sites listed in (6) above will be considered part of the renewable energy generation facility.

A renewable energy generation facility includes any permanent and temporary structures, equipment or other things required to generate electricity as well as the associated or ancillary equipment, systems and technologies prescribed in O. Reg. 160/99 above.

Renewable Energy Project

A "renewable energy project" is defined in the Green Energy Act, 2009 and means the activities related to "*the construction, installation, use, operation, changing or retiring of a renewable energy generation facility*"

Project Location

The "project location" is defined in O. Reg. 359/09 to mean, when used in relation to a renewable energy project, "*a part of land and all or part of any building or structure in, on or over which a person is engaging in or proposes to engage in the project and any air space in which a person is engaging in or proposes to engage in the project*".

It is important to note that the definition references the "project" which relates to the definition of "renewable energy project". This means that activities for all project phases (i.e. the construction, installation, operation and use, changing or retiring of the facility), must be considered in defining the project location.

While site plans often focus on the ground-level project footprint, the project location definition also includes any air space in which a person is engaging in or proposes to engage in a project. This detail can be significant for certain components of renewable energy project. For instance, a wind turbine has blades which extend in the air to create a broader project location than the base of the turbine alone.

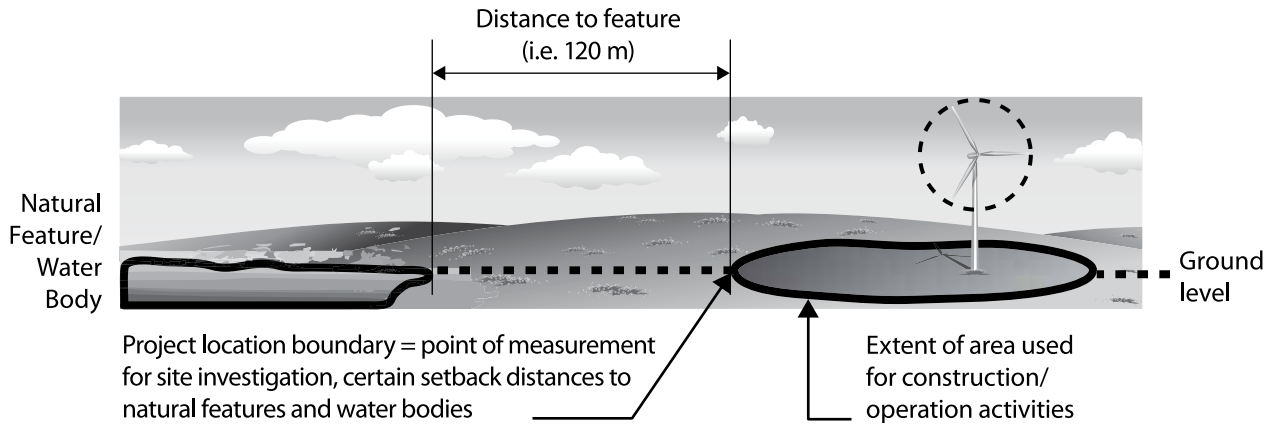

Figure 1. Project location boundary where construction area is furthest

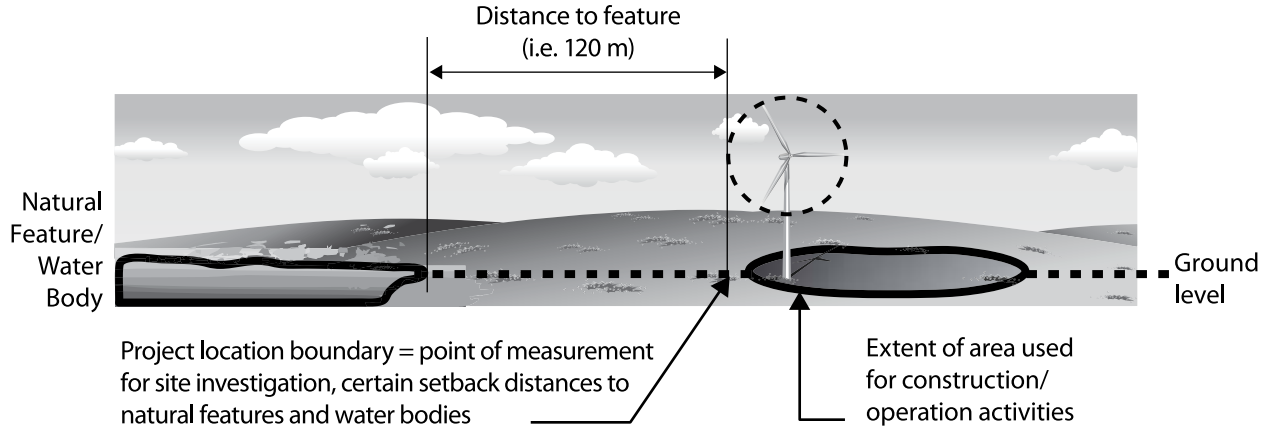

Figure 2. Project location boundary where turbine blade tip is furthest

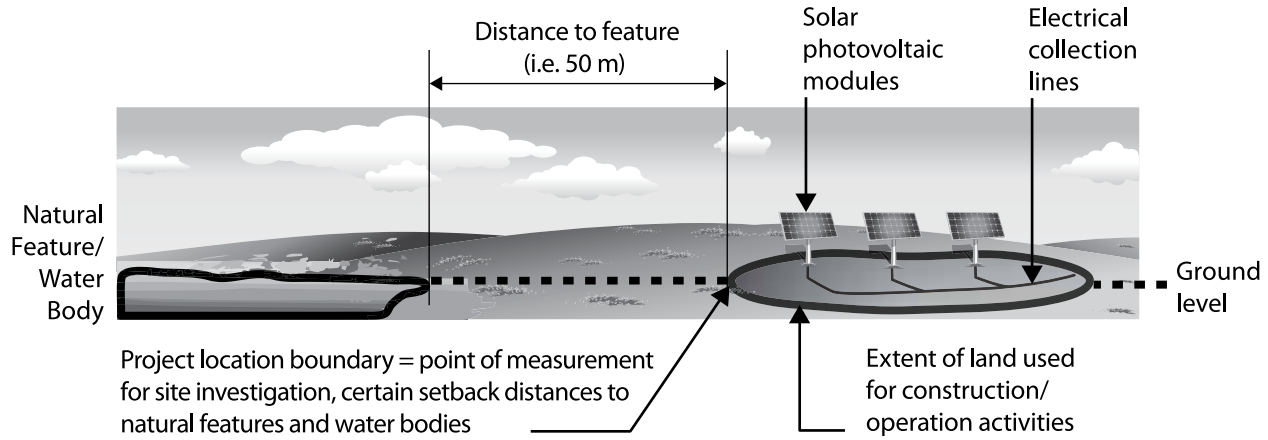

Figure 3. Project location boundary for a solar facility

The project location boundary must be determined for the purposes of defining setback and site investigation distances to meet a number of requirements under O. Reg. 359/09. To do this, the outer extent of all project activities and structures must be considered. As an example, if a wind turbine represents an outer boundary, the actual limit of the project location could be the extent of any staging area used for constructing or installing the turbine. Alternatively, if construction of the turbine is constrained to a small area around the turbine base then the project location boundary could be the turbine blade. This decision would be based on whatever activity or structure extends the project location the furthest. Figures 1 and 2 demonstrate these scenarios. Figure 3 depicts the project location boundary for a solar facility. Applications for bio-energy projects should be based on similar interpretations to define the project location in respect of the components of the facility.

The project location boundary should be considered from the ground level or to a projected point at ground level if boundary is above or below ground. This interpretation is shown in Figure 2 for the wind turbine blade example where the boundary point is projected to the ground level.

Environment

Under O. Reg. 359/09, "environment" has the same meaning as in Part V.0.1 of the EPA, R.S.O. 1990, c. E.19 and this is the same definition as under the Environmental Assessment Act, R.S.O. 1990, c. E.18. The "environment" means:

(a) air, land or water,

(b) plant and animal life, including human life,

(c) the social, economic and cultural conditions that influence the life of humans or a community,

(d) any building, structure, machine or other device or thing made by humans,

(e) any solid, liquid, gas, odour, heat, sound, vibration or radiation resulting directly or indirectly from human activities, or

(f) any part or combination of the foregoing and the interrelationships between any two or more of them, in or of Ontario.

3. REA Process Overview

The diagram depicted in Figure 4 shows the principal process steps required to obtain an REA. It is important to emphasize that Figure 4 is an overview of the main steps and should not be construed as depicting a rigid timeline or sequence of events. The REA application is an applicant-driven process and it is up to the applicant to plan pre-submission activities. Furthermore, Figure 4 does not capture the regulated timelines such as those governing consultation activities and the provision of draft reports. These details are provided in subsequent sections of this guide that describe the key process steps. Applicants are advised to use this overview diagram in conjunction with the sections of text that follow and those in chapter 2 to better understand the process steps and to plan the timing of their application activities.

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4. Scoping the Project Concept

To begin the REA process, an applicant should have a clear vision of the project concept. Determining exactly what activities and facilities are included in the project for a renewable energy generation facility is of critical importance to an application, since improperly including or omitting activities or facilities could lead to the determination that an application does not meet the requirements of O. Reg. 359/09.

The scope of the project is principally governed by the definitions for "renewable energy generation facility" and "renewable energy project" given in section 2 above. The key questions an applicant must ask in determining what is in or out of scope are:

1) What is included in the generation facility? This includes the equipment, systems and technologies used for the purpose of generating electricity and those specified as ancillary to the generation facility (e.g. roads, transmission/distribution lines, electrical conversion equipment, specified as per definitions above).

2) What are all the project activities that relate to the construction, installation, operation and use, changing or retiring of the facility?

By answering these questions in light of the definitions of "renewable energy generation facility" and "renewable energy project", all structures, equipment, and project activities that are subject to the REA can be determined.

A detailed project concept is important for completing the pre-application work for the REA and to determine what other permits may be required from federal, provincial, and other agencies.

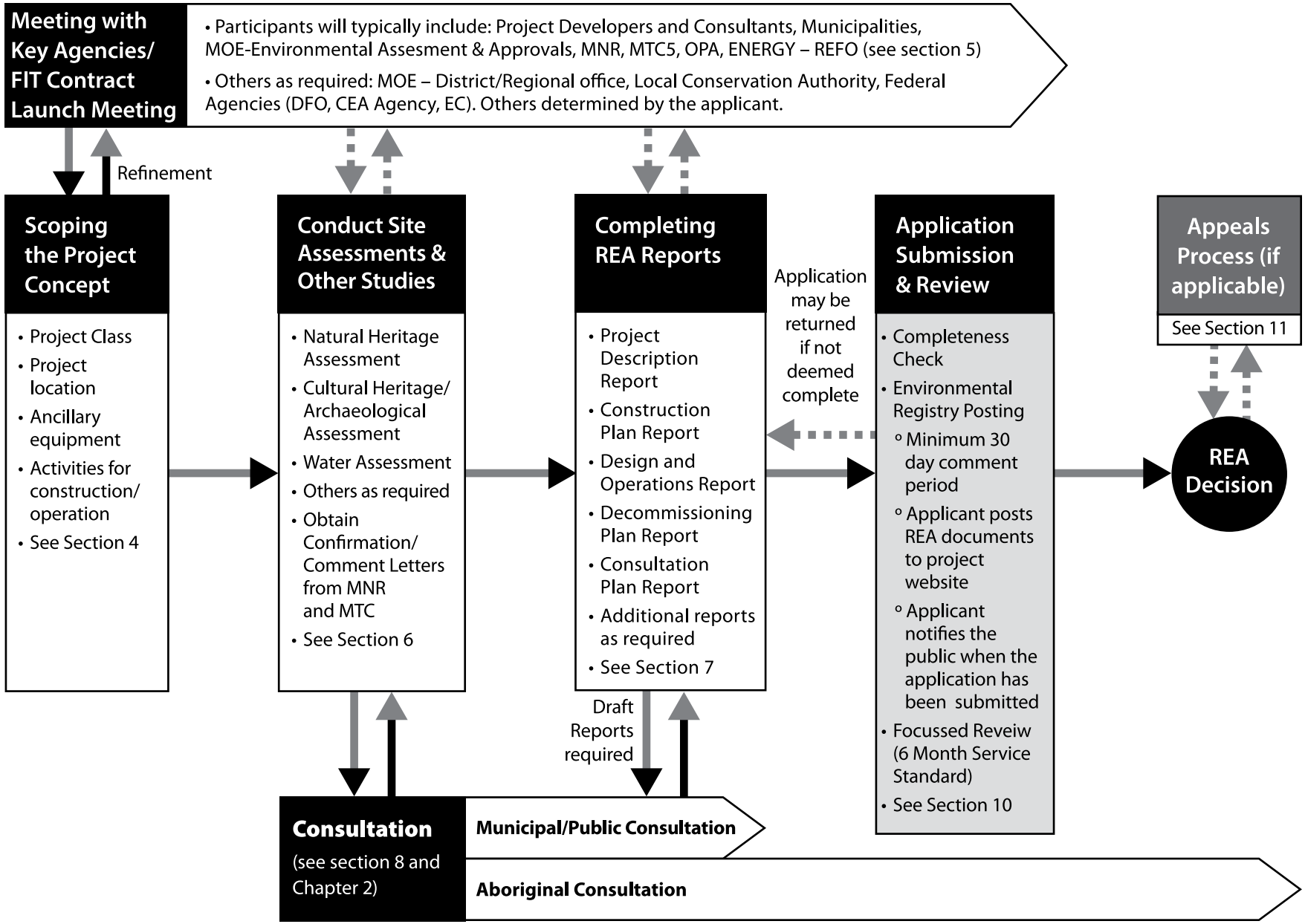

Figure 4: Overview of the principal elements of the REA application process. See sections 4 –11 for more detailed information on requirements of each element.

4.1. Determining the Class of Project

As a starting point, an applicant should first determine if the project requires an REA and define the technology and Class of project, if a Class applies. The following tables summarize the types and Classes of renewable energy technologies:

Solar

Class	Location of PV Modules	Name plate Capacity (kW)	Overview of REA Requirements[1]
Class 1	Any location	≤ 10	No REA required
Class 2	Mounted on a roof or wall of a building	> 10	No REA required
Class 3	Any location other than a wall or roof of a building	> 10	REA requirements

1 See Appendix 1 for a summary table of requirements for each Class

For the purposes of solar facilities, name plate capacity means the lesser of the total of the design electricity generating capacities of all the panels that are part of the facility, and the maximum power output of all of the inverters units that are part of the facility.

Wind

Class	Name Plate Capacity (kW)	Greatest Sound Power Level (dBA)	Overview of REA Requirements[1]
Class 1	≤ 3	Any	No REA required
Class 2	> 3 and < 50	Any	REA required. Fewer study, reporting, setback, and consultation requirements
Class 3	≥ 50	< 102	REA required. Fewer setback requirements
Class 4	≥ 50	≥102	REA required

1 See Appendix 1 for a summary table of requirements for each Class

Bio-energy

Anaerobic Digestion Facilities

Class	Location of Facility	Organic Matter Digested	Overview of REA Requirements[1]
Class 1	At a farm operation	One or more of the following: 1. Biomass that is grown or harvested for the purpose of being used to generate electricity 2. Biomass that is agricultural waste within the meaning of Regulation 347 of the Revised Regulations of Ontario, 1990 (General — Waste Management) made under the Environmental Protection Act. 3. Farm material	REA required. Fewer study, reporting and consultation requirements
Class 2	At a farm operation	One or more of the following: 1. Organic matter consisting of any biomass and farm material, other than organic matter specified for Class 1 above 2. Source separated organics	REA required. Fewer study, reporting and consultation requirements
Class 3	At a location other than a farm operation	One or more of the following: 1. Biomass 2. Source separated organics 3. Farm material	REA required

1 See Appendix 1 for a summary table of requirements for each Class

It is important to note, as per paragraph 9 (1) 9 of O. Reg. 359/09, Class 1 and 2 anaerobic digestion facilities do not require an REA if they are located on a farm and are considered to be a "regulated mixed anaerobic digestion facility" as defined in O. Reg. 267/03 under the Nutrient Management Act, 2002 and would not have required an environmental compliance approval issued in respect of an activity mentioned in subsection 27 (1) of the Environmental Protection Act before September 24, 2009.

Thermal Treatment Facilities

Class	Location of Facility	Organic Matter Digested	Overview of REA Requirements[1]
Class 1	Any location	Biomass consisting solely of woodwaste	REA required. Fewer study, reporting and consultation requirements if on a farm
Class 2	At a farm operation	Any type of biomass (not solely woodwaste)	REA required. Fewer study, reporting and consultation requirements
Class 3	At a location other than a farm operation	Any type of biomass (not solely woodwaste)	REA required

1 See Appendix 1 for a summary table of requirements for each Class

Biogas and Biofuel Facilities

Other bio-energy facilities such as those defined as biogas or biofuel facilities also require a renewable energy approval. The summary table of requirements in Appendix 1 outlines the REA requirements for these projects.

To assist applicants in interpreting the difference between an anaerobic digestion facility and a biogas facility, the following clarifying points are made:

- Anaerobic digestion facilities are those where both the anaerobic digester and the electrical generation equipment are integrated on the project location for the purpose of generating energy.
- Biogas facilities are those where an electrical generator is proposed to be connected to an existing source of biogas such as a landfill or an existing anaerobic digester.
- A biogas source can either be gas collected at a landfill site due to the decomposition of a landfill (landfill gas) or gas derived from anaerobic digestion of biomass, source separated organics or other organic matter at another type of existing anaerobic digestion facility.
    - o An example of a biogas facility related to existing anaerobic digestion is the installation of a generator to combust biogas derived from the anaerobic digestion of activated sludge at a waste water treatment plant.

Applicants seeking further clarity on the difference between biogas and anaerobic digestion facilities should refer to definitions in O. Reg. 359/09 under the Environmental Protection Act and O. Reg. 160/99 under the Electricity Act, 1998 for relevant terms.

Use of Non-Renewable Fuels

Renewable energy projects must also meet restrictions on the amount of electricity generated from non-renewable sources (e.g. natural gas in a thermal treatment facility). These restrictions are given in paragraph 9 (1)7 and in section 36 of O. Reg. 359/09.

For projects 500 kW and less:

- **Non-renewable energy sources must be <10% for annual electricity generation.**

For projects over 500 kW:

- **Non renewable sources must be <5% for annual electricity generation.**

Water Power Facilities

Water power projects do not require an REA but instead are subject to the Environmental Assessment Act through either an individual EA (facilities over 200 MW) or through the Class EA for Water Power Projects (facilities 200 MW and under). Additional permits will also be required, such as a Permit to Take Water (PTTW) issued by MOE under the Ontario Water Resources Act and approvals by the Ministry of Natural Resources (MNR) under the Lakes and Rivers Improvement Act. Depending on the project specifics, a federal environmental assessment and/or the requirement for a permit under the Canadian Environmental Assessment Act and the Conservation Authorities Act, respectively, may be triggered.

4.2. Defining the Project Location and Preparing a Draft Project Description Report

Prior to initiating the REA approval process, details about facility components and proposed activities (i.e. construction, operation, decommissioning) are needed. One of the earliest milestones in the application process is the preparation of a draft Project Description Report (PDR). This draft document is required to be submitted to MOE in order to provide the applicant with an Aboriginal Consultation List, a step that precedes other consultation activities (more information on consultation requirements is presented in Chapter 2). The project details needed to prepare a draft PDR serve as a useful guide for how refined the project concept must be to initiate the REA process. Chapter 4 of this guide gives further information on how to write the PDR.

One key component of the project scope that requires definition early on is the project location. Applicants are recommended to carefully read the definition of project location in section 2 above so that the boundary of the project location can be defined. This is an important step because the project location boundary is needed in order to proceed with assessments of cultural heritage, natural heritage, and water bodies.

4.3. Additional Guidance for Determining the Project Scope

The following sections provide specific guidance on determining what facility components are within the scope of a project.

4.3.1. Scope of Transmission or Distribution Lines Associated with or Ancillary to the Project

Subject to the qualifications discussed below, transmission or distribution lines associated with or ancillary to the renewable energy generation facilities are included as part of the facility and thus must be considered in an application for an REA. These facility components will contribute to the size and dimensions of the project location for the purposes of setbacks and will require assessment for negative environmental effects that will or are likely to occur from their installation, operation or decommissioning in the REA application.

Since transmission and distribution lines are interconnected with the broader electrical grid, it is important to describe what is meant by an "ancillary line" so that REA requirements are applied appropriately. Ancillary equipment for renewable energy generation facilities is defined in O. Reg. 160/99 under the Electricity Act, 1998. Ancillary equipment includes transmission and distribution lines that are defined as lines 50 km in length or less, associated with or ancillary to the renewable energy generation facility.

For distribution lines this is further clarified to only include lines:

> *"…used to distribute electricity within the facility or from the facility to the distribution system of the distributor in whose distribution service area the renewable energy generation facility is located." (O.Reg.160/99, paragraph 1 (5)1)*

For transmission lines this is further clarified to only include lines:

> *"…used to transmit electricity within the facility or from the facility to the IESO-controlled grid" (O.Reg.160/99, paragraph 1 (5)2)*

In some cases connection of the project facility to distribution lines in the local distribution system will require the distributor to enhance existing distribution lines or build new ones. Distribution system planning is conducted in a process separate from the REA process and can involve an assessment of impacts to the grid from new generation. For the purposes of the REA, the lines built by the local distribution company in their distribution service area will not be considered part of the facility or project and an REA is not required to be obtained in respect of them.

Similarly, in some cases connection of the facility to transmission lines that form part of the Independent Electrical System Operator (IESO) controlled grid will require a transmitter, such as Hydro One Networks, to enhance or extend that grid. Transmission system planning is conducted in a process separate from the REA process and can be subject to the Environmental Assessment Act. For the purposes of the REA, changes made to the IESO controlled grid by Hydro One Networks or another transmitter will not be considered part of the facility and an REA is not required to be obtained in respect of them.

An REA is required for all distribution and transmission lines built by the applicant or a contracted third party up to the point of common coupling with the distribution system or the IESO controlled grid. This applies even if the IESO controlled grid or distribution

system is expanded following the construction of the renewable generation facility. Figure 5 below depicts four connection scenarios to illustrate interpretation of project scope.

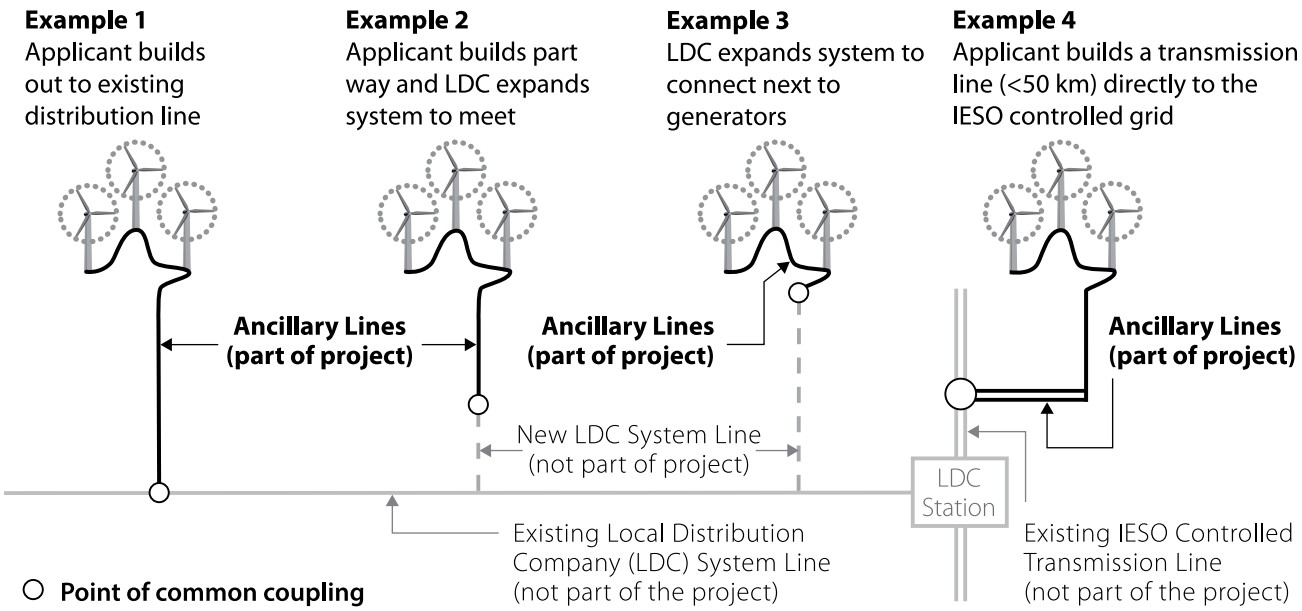

Figure 5. Diagram of electrical line scenarios for determining project scope

In situations where connection of the facility will require the distributor or Hydro One Networks to enhance or construct new distribution or transmission facilities respectively, it may be in the proponent's interest to consider these connection facilities when conducting environmental studies and assessments as part of the REA process. Doing so can support the distributor or Hydro One Networks in subsequent assessment and approval processes (e.g. under the Environmental Assessment Act), and avoid risks of delays in connecting a project. Proponents are strongly encouraged to engage with distributors and Hydro One Networks early in the REA process to discuss the location and siting of connection facilities, as well as any studies or assessments that may be required in respect of those facilities.

4.3.2. Scope Related to Distribution of Gas to Biogas Facilities

Biogas facilities are those that combust biogas but are not anaerobic digestion facilities as defined in O. Reg. 359/09. Biogas facilities are related to the generation of electricity through the combustion of biogas derived from sources at existing non-generating facilities. Such facilities can include landfills as well as facilities where biogas is already being generated from anaerobic digestion such as the anaerobic digestion of activated sludge at wastewater treatment plants.

For biogas facilities, the REA covers all equipment, systems and technology used for generating electricity (and those specifically defined as ancillary to the facility). This is not interpreted to include equipment related to the conveyance of biogas from the existing source to the generation site, such as through piping. While any piping or conveyance equipment is not considered part of the facility for the purpose of defining the boundaries of the project location, applicants are still recommended to identify this equipment in REA reports such as in the site plan of the Design and Operations Report.

4.3.3. Scope when Two or More Projects may be Integrated or Aggregated

Due to the modular nature of solar and wind technologies, a renewable energy project employing these technologies will often include multiple

generators (e.g. multiple turbines or multiple solar modules). This results in a need for clarity on the appropriate scope of the facility to ensure that larger projects are not fragmented conceptually for the purpose of applying for an REA. Subsections 4 (3) and 6 (3) of O. Reg. 359/09 for solar and wind, respectively, state that two or more facilities shall be considered a single facility if they are "*to function together as an **integrated** or **aggregated** system for generating electricity*". It is important for applicants to consider if their project could be viewed to function in an integrated or aggregated manner with a neighbouring project to ensure the appropriate application is submitted.

In determining the potential for facilities to be considered integrated or aggregated, applicants should first consider whether they are physically interconnected. For example, if two or more facilities are electrically interconnected through the sharing of transmission/distribution lines or an electrical conversion station somewhere prior to connection to the distribution or transmission system, they may be considered integrated or aggregated. However, in some cases, a single project may have two or more electrically independent clusters of generators that are geographically separated such that it may be technically preferable to connect to a transmission or distribution system at more than one point. Thus, a determination of "integrated or aggregated" can also apply to other physical and operational aspects of the project. For instance, adjacent projects may share use of project roads, or be controlled, owned, operated and maintained by the same entity in a coordinated manner. These factors may lead to the conclusion that adjacent project proposals should be considered a single project for the purpose of applying for an REA. Combining projects that are truly integrated or aggregated benefits the REA process by minimizing duplication of effort, combining the assessment of environmental effects, reducing the amount of application fees payable and facilitating more clear and streamlined consultation.

Applicants who are proposing a project that may be considered to be integrated or aggregated with an adjacent project are strongly encouraged to discuss the specifics of their proposal at a meeting with the Service Integration Unit of MOE's Environmental Approvals Access and Service Integration Branch at a very early stage in the process. Any changes to project scope may impact a number of REA requirements.

It should be noted that the guidance in this section only pertains to how O. Reg. 359/09 can be interpreted with respect to project integration for the purpose of obtaining an REA. Ground-mounted solar microFIT or FIT projects that are aggregated for the purposes of calculating Feed-in Tariff (FIT) contract pricing as a result of the updated FIT program, as well as Combined Projects composed of relocated constrained microFIT projects may be required to obtain an REA. Applicants who are also seeking or have obtained a contract offer under the FIT program of the Ontario Power Authority should consult rules for integration of projects under that program.

4.3.4. Meteorological Towers related to Wind Facilities

Meteorological towers are often installed to test wind conditions to determine feasibility for the development of a wind facility. This is typically done some time in advance of applying for an REA. If the wind facility ultimately does get developed, a meteorological tower may also continue to be used while the wind facility is in operation.

The MOE does not consider meteorological towers to be part of a renewable energy generation facility when they are constructed or installed for the purposes of project planning before the construction or installation of any wind turbines. However, where meteorological towers are proposed as part of the ongoing operation of the wind turbines, (e.g. when required by the IESO for provision of telemetric data) they will be considered to be part of the facility.

Applicants should also note that meteorological towers may be subject to other government approvals depending on the nature of the tower and where it is located. For instance, in order to install a meteorological tower on Crown Land, the necessary permissions must first be obtained from the MNR. Applicants should contact key agencies and ministries at an early stage to determine if other approvals may be required for a meteorological tower.

5. Meeting with Key Agencies/FIT Contract Launch Meeting and Commencing Additional Approvals

Applicants that received a FIT 1.0 contract and are seeking an REA are recommended to meet with the Service Integration Unit of MOE's Environmental Approvals Access and Service Integration Branch at an early stage in project planning to discuss how the requirements of O. Reg. 359/09 will apply to their project. The principal point of contact for the REA at the MOE is the MOE's Environmental Approvals Access and Service Integration Branch. Contact information can be found in Appendix 2.

Applicants that received a FIT 2.0 contract are required to do a Contract Launch Meeting for Large FIT projects. The contract launch meeting is designed to ensure that applicants are aware of the contractual and regulatory requirements that apply to them. It provides an opportunity for the municipality to comment on municipal infrastructure issues and interests at an early stage (in other words, before the regulatory approval work begins). The Contract Launch Meeting also provides government ministries and agencies the opportunity to discuss regulatory requirements and answer any questions that applicants or municipalities may have.

5.1. Determining if Additional Permits are Required

Having a clear project concept will allow the applicant to determine what other approvals may be needed to fully authorize all aspects of the project. While the REA is a streamlined approval that takes the place of a number of permits previously issued for such facilities, there are additional permits separate from the REA process that could apply depending on the unique features of each proposal. To assist applicants with making this determination, the table below has been prepared as a guide to additional approvals. Note that while every attempt has been made to make this a complete list current as of this guide's publication date, applicants are responsible for determining their legal obligations. Contact information for most agencies cited can be found in Appendix 2.

Agency	Potential Permits
Ontario Ministry of Transportation (MTO)	**Road User Safety Policy** • Permit may be obtained by equipment suppliers or by applicants on behalf of suppliers. • Change of Access and Heavy/Oversize Load Transportation Permit to ensure compliance with provincial highway traffic and road safety regulations for transport of project components (equipment, material) to site. **Corridor Management Permits** • MTO has the authority to issue permits under the Public Transportation and Highway Improvement Act (sections 31, 34 and 38). • A Building and Land Use Permit must be obtained to carry out work adjacent to a provincial highway and within MTO permit control area. An MTO Building and Land Use permit must be obtained before a municipal building permit can be issued. . • An Encroachment Permit would be required for working within a provincial highway. • An Entrance Permit would be required for constructing a new entrance or upgrading an existing entrance onto a provincial highway. • See Appendix 2 for MTO contact information.
Ontario Ministry of Natural Resources (MNR)	Further information about the following permits and approvals are outlined in MNR's Approval and Permitting Requirements Document for Renewable Energy Projects (APRD). • See Appendix 2 for MNR contact information. **Crown Land Application** • For the projects proposed on Crown land, approval for work permits and/or tenure to occupy Crown land under the Public Lands Act is required. **Approvals under the Endangered Species Act, 2007** • Authorization or compliance with regulatory rules under sections 23.6 or 23.13 of O.Reg 242/08 (where applicable) is required when a project or project activities may kill, harm, harass, capture, take, possess, transport or collect a species listed as extirpated, endangered or threatened on the Species at Risk in Ontario List. • Authorization or compliance with regulatory rules under sections 23.6 or 23.13 of O.Reg 242/08 (where applicable) is required when a project or project activities may damage or destroy the habitat of an endangered or threatened species on the Species at Risk in Ontario List. **Approval under the Fish and Wildlife Conservation Act, 1997** • Approval is required if the project involves the destruction of nests or eggs of birds regulated under the Fish and Wildlife Conservation Act, 1997, where these activities are not provided for under a REA. • Approval is required if the project involves the destruction of a beaver dam or the den of a fur bearing mammal (other than a fox or skunk). • Approval is required if the project involves the destruction of the den of a black bear or interference with a black bear in its den.

Agency	Potential Permits
Ontario Ministry of Natural Resources (MNR) *(Continued)*	**Aggregate Resources Act Licences and Permits** • A licence (on private land in an area designated under the Aggregate Resources Act) or permit (on Crown land) is required when a project requires the removal and use of mineral aggregates from the project location. **Approval under the Lakes and Rivers Improvement Act** • Location Approval and Plans and Specifications Approval may be required for some water crossings. **Crown Forest Sustainability Act, 1994 Licences and Approvals** • Forest Resource Licence is required when a project involves clearing, removing, or using Crown timber from the project location. • Forest Resource Processing Facility Licence is required when a facility will use more than 1000 cubic metres of Crown or private forest resources per year. • Approval of a withdrawal of land from an area under Forest Resources Licence or Sustainable Forest Licence is required when a project is proposed in an area already licensed for forest activities. **Permit under the Forest Fires Prevention Act** • A burn permit may be required when a project on Crown land or within a fire region will involve burning of debris, grass, etc.

1 For more information on the Approval and Permitting Requirements Document for Renewable Energy Projects see MNR's renewable energy webpage at http://www.mnr.gov.on.ca/en/Business/Renewable/index.html.

Agency	Potential Permits
Conservation Authorities (CAs)	**Conservation Authorities Act Permit** • When a renewable energy project is located in a CA regulated area, the local CA should be contacted early in the process about potential CA permits under the Conservation Authorities Act. • Potential permits related to the control of flooding, erosion, dynamic beaches or pollution. • Contact local CA office for more information. Contact information for local offices is given in Appendix 2.
Niagara Escarpment Commission	**Development Permit** • If a project is planned within the Niagara Escarpment Plan area, a development permit may be required. • If a development permit is required, this must be obtained prior to submitting an application for a REA. • Contact the Niagara Escarpment Commission for more information.

Agency	Potential Permits
Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA)	**Approval of Nutrient Management Plans (NMP) and Nutrient Management Strategies (NMS) under the Nutrient Management Act, 2002** • Land application of anaerobic digester digestate material may require an NMS, NMP or Non-Agricultural Source Materials (NASM) plan. • Contact OMAFRA for more information.
Municipalities	**Building Code Act, 1992 Permit** • A structure that supports a wind turbine generator having a rated output of more than 3 kW is designated for the purposes of clause (d) of the definition of building in subsection 1 (1) of the Building Code Act, 1992. • Other structures that are part of renewable energy facilities may also require building permits. • Local municipal authority should be contacted for further information. **Drainage Act Assessment** • If a renewable energy project impacts the flow of a drainage works regulated under the Drainage Act, a drainage reassessment or engineering study may be required. • The local municipal authority and/or OMAFRA should be contacted for further information. **Road Use Agreement/Permit** • May be required for use of roads to construct/operate facility. • New transmission or distribution lines in existing municipal right of ways may also require a road use agreement. • Local municipal authority should be contacted for further information.
Electricity System Operators / Energy Agencies	**Electrical Safety Code Certification** • Electrical systems and connections may require inspection / authorization by the Electrical Safety Authority (ESA). **Approval to Connect to a Distribution System / IESO-controlled Grid** • Authorization (through impact assessment(s) and connection agreement) from the local distribution company and (where applicable) upstream distributors and/or transmitters to connect a distribution line from the project to the distribution system. • Authorization (through impact assessment(s) and connection agreement) from a transmitter and the Independent Electricity System Operator (IESO) if connecting directly to the IESO controlled transmission system. **Generator License** • A licence may be needed from the Ontario Energy Board in order to generate electricity. **Leave to Construct** • Construction of ancillary transmission lines may require an authorization from the Ontario Energy Board. **Technical Standards and Safety Authority Certification** • Gas pipelines used in bio-energy facilities require certification by a licensed professional.

Agency	Potential Permits
Federal Government/ Agencies	Applicants are advised to contact the Canadian Environmental Assessment Agency (CEA Agency) for further information related to the need for a federal environmental assessment. Additional permits may be required from the following departments/agencies: • CEA Agency – Federal environmental assessment • Environment Canada – migratory birds, others may apply • Transport Canada, Aerodromes and Air Navigation Ontario Region – potential navigation, lighting and marking requirements. • Fisheries and Oceans Canada (DFO) – Authorizations may be required under various federal acts (i.e. Fisheries Act, Migratory Birds Act, and Species at Risk Act). In some cases, conservation authorities may review proposals on behalf of DFO. • Parks Canada – if project may impact a national park Applicants are also encouraged to contact the following federal agencies early in the process to discuss the details of their project: • Radio Advisory Board of Canada – potential signal disruptions for wind farms • Royal Canadian Mounted Police Mobile Communications Services – potential signal disruptions for wind farms • NAV Canada – potential disturbance to air navigation and radar systems for wind farms. NAV Canada may request a wind proponent to move turbines a certain distance from the navigation and radar systems, or require the airport to alter instrument approaches.

In addition to this list, applicants should note that MNR and Ontario's conservation authorities share a role in managing development on natural hazard lands such as floodplains. Applicants should consult with the local conservation authority (if one exists) or MNR at an early stage in project planning to determine if there are natural hazard lands in the vicinity of the project location and, if so, any changes to the project that may be required.

5.1.1. Timing of Multiple Permits

The goal of the REA is to streamline and coordinate the issuance of multiple permits, particularly amongst provincial approvals, where they are required. To enhance coordination, applicants should discuss with relevant agencies how the timing of application submission for different permits can be optimized. Coordination of applicable permits should be discussed with all relevant regulatory agencies to enhance project approval timing. Ultimately, managing the submission of permit applications rests with the applicant.

In particular, a proactive approach should be taken when assessing the presence of species and/or habitat protected under the Endangered Species Act, 2007 to determine the potential need for an approval. Applicants are strongly advised to initiate discussion with the local MNR Regional or District office during the preliminary stages of project planning, as it is recommended that REA and potential Endangered Species Act, 2007 requirements be addressed concurrently.

For a complete outline of the assessment and analysis requirements associated with determining whether an authorization is required under the Endangered Species Act, 2007, as well as the information required to be provided in an application for authorization, applicants may refer to the MNR's Approval and Permitting Requirements Document and the local MNR Regional or District office. A summary of the rules and requirements under O.Reg 242/08 can be found at http://www.ontario.ca/environment-and-energy/development-and-infrastructure-projects-and-endangered-or-threatened-species.

5.2. Additional Authorization from MOE for Unique Circumstances

There are two circumstances that may require applicants to seek additional authorization from MOE in advance of submitting an REA application. These are:

1. Where a project proposal includes a discharge of wastewater that will further contaminate a water body that does not meet provincial water quality objectives (Policy 2 Deviation, MOE Water Resources Management)
2. Where a project is proposed on a closed landfill site that was closed within the past 25 years. (EPA section 46 Approval)

For most projects, these circumstances will not apply. For applicants who believe their project may require consideration of these unique circumstances, the following sections provide additional guidance. Applicants are also recommended to contact the MOE's Environmental Approvals Access and Service Integration Branch at an early stage to discuss these unique circumstances.

5.2.1. Projects Requiring a Deviation from Policy 2

For certain renewable energy projects, a discharge of wastewater may be proposed in contravention of MOE's Policy 2 for Water Resources Management. Policy 2, defined in the MOE publication "*Water Management: Policies, Guidelines, and Provincial Water Quality Objectives of the Ministry Of Environment And Energy*" (1994, Publication #3303e), states:

> *"Water quality which presently does not meet the Provincial Water Quality Objectives shall not be degraded further and all practical measures shall be taken to upgrade the water quality to the Objectives." (section 3.2.2)*

Where new discharges are proposed to waters that do not meet Provincial Water Quality Objectives, no further degradation of the water body will be permitted and all practical measures shall be undertaken to upgrade water quality. However, it is recognized that in some circumstances it may not be technically feasible, physically possible or socially desirable to improve water quality toward the Provincial Water Quality Objectives.

If an applicant believes that a discharge in contravention of Policy 2 is justified they must seek approval to deviate from Policy 2 from the MOE. It is expected that applicants will seek a decision on a Policy 2 deviation in advance of submitting an application for a REA. If the discharge can not be adequately justified, the ministry is unlikely to approve the discharge and it is advantageous for this to be identified early so the applicant can make appropriate changes to the project.

It is important to note that this situation will only apply to projects proposing a discharge to surface water (such as for larger bio-energy projects). To help applicants identify if a deviation from Policy 2 may be required, applicants proposing discharges to surface water are advised to contact the MOE Regional or District office to determine what information may be needed to 1) classify the receiving water as meeting or not meeting Provincial Water Quality Objectives and 2) characterize the proposed discharge to determine its impact on the water body.

A description of the application process and required information for a Policy 2 deviation is contained in the MOE publication "*Procedure B-1-5: Deriving Receiving-Water Based, Point-Source Effluent Requirements for Ontario Waters*" (1994, Publication # 3302e).

5.2.2. EPA Section 46 Approval for Former Disposal Sites

An application proposing a renewable energy facility that is to be located entirely or in part on land that was formerly a waste disposal site within the last 25 years requires an approval in accordance with section 46 of the EPA. The purpose of this approval is to ensure all environmental risks related to development of these sensitive sites are addressed through appropriate project planning. The process for applying for a section 46 approval is described in the MOE publication "*Operational Guidance for Obtaining Environmental Protection Act Section 46 Approval for the Use of Lands Previously Used for Disposal of Waste*" (2005, Publication #5136e).

6. Conducting Site Assessments and Other Studies

After defining the project concept, applicants can begin to conduct the required assessments of the project location and vicinity by evaluating negative environmental effects that will or are likely to occur from engaging in the project. The principal types of assessments required by O. Reg. 359/09 are assessments of cultural heritage, natural heritage, and water bodies. Most projects requiring an REA must perform these assessments. Refer to sections 6.1 – 6.3 for more detail on cultural heritage, natural heritage, and water assessments.

Depending on the project specifics, additional studies and investigations may be required. For instance some bio-energy facilities may require assessments of hydrogeology and surface water; wind projects may require noise studies; for all renewable technologies, applicants may determine that other investigations examining impacts on local traffic or storm water runoff may be required to describe negative environmental effects that will or are likely to occur. A starting point for determining additional studies that are required by O. Reg. 359/09 is Chapter 9 of this guide which discusses additional reports that may be required due to specific regulatory triggers within the REA regulation.

Timing for the initiation and completion of assessments and studies should be determined by the applicant. There are a number of factors that applicants need to be aware of, with respect to having these studies completed. Certain fieldwork techniques employed in archaeological assessments have the potential to disturb natural features protected under the REA regulation, thereby altering the results of the Natural Heritage Assessment (NHA). However, there is opportunity within the archaeological assessment process to use alternative techniques (e.g. Stage 2 test pitting versus ploughing), or to schedule fieldwork in a way that avoids potential impacts to natural features, while ensuring studies are completed in an efficient and timely manner. It is advised that proponents discuss the alignment of archaeological fieldwork and the NHA with the appropriate consultants at an early stage in project planning. Proponents should have their consultant archaeologist contact the Ministry of Tourism, Culture and Sport (MTCS) to confirm the appropriateness of using alternative fieldwork techniques.

In addition to potential impacts to natural features assessed through the NHA, archaeological assessments may also have the potential to have adverse effects on species at risk or their habitat, and may require an approval under the Endangered Species Act, 2007. Applicants are strongly advised to initiate discussions with the local MNR Regional or District office during the preliminary stages of project planning, and prior to any archaeological assessment (including all fieldwork associated with Stages 2-4), to determine whether adverse effects to species at risk or habitat is likely and to discuss possible avoidance measures.

Furthermore, all assessments of cultural heritage and natural heritage must be completed sufficiently early in the process to allow MTCS and MNR to review them. Following review of cultural heritage and NHA reports by MTCS and MNR, respectively, these ministries will provide letters with respect to the reports that must be submitted as part of a complete application to the MOE. Since drafts of these reports must be made available to the public at least 60 days in advance of the final public meeting (see Chapter 2 for detailed information on consultation requirements) it is advantageous for the applicant to start assessments and studies as early in the process as possible.

6.1. Cultural Heritage Requirements

In accordance with sections 19 - 23 of O. Reg. 359/09 applicants must meet a number of cultural heritage requirements related to protected properties, archaeological and heritage resources. All applicants are advised to contact the MTCS at an early stage of project planning to ensure they understand the cultural heritage requirements and to obtain additional guidance on meeting them.

Further information on how to address the cultural heritage requirements can also be found in the MTCS's guidance document:

Cultural Heritage Resources: An Information Bulletin for Projects Subject to Ontario Regulation 359/09 Renewable Energy Approvals

This document, which for the remainder of this section will be referred to the *MTCS - REA Information Bulletin*, can be found on MTCS's website (www.mtc.gov.on.ca).

As an overview of the requirements, applicants must do the following:

6.1.1. Project Located on a Protected Property

For all facilities that require an REA, applicants must determine if the facility will be located on a property protected under the Ontario Heritage Act and, if so, whether an authorization is needed in respect of the project. The table in section 19 of O. Reg. 359/09 provides a list of the types of properties that are considered protected as well as the type of authorization needed / authorizing body. The *MTCS - REA Information Bulletin* provides guidance on identifying protected properties at the project location.

Depending on this determination, the following steps must be taken:

1. If the project location is on a protected property and an authorization is required:

- The applicant must obtain this authorization from the relevant agency and include a copy of it in their REA application submission.

2. If the project location is on a protected property but an authorization is not required:

- The applicant must obtain written confirmation that an authorization is not needed from the relevant agency and include a copy of it in their REA application submission.

3. The project location is not on a protected property:

- The applicant must prepare and include a written summary of the matters considered in making this determination within the appropriate section of the Design and Operations Report. For instance, this summary should indicate the agencies contacted and summarize what information was provided. Note: Class 2 wind facilities must include this summary in the PDR.

Applicants should note that the project location may be on more than one type of protected property and the appropriate steps must be taken as they apply to each property and type of protection.

6.1.2. Identification and Assessment of Archaeological and Heritage Resources

For all facilities that require an REA, applicants must undertake archaeological and heritage assessments, unless they determine there is a low potential for archaeological and heritage resources at the project location. Applicants can make this determination, by considering criteria included in the following checklists issued by the MTCS:

- *REA Checklist: Consideration of Potential for Archaeological Resources; and*
- *REA Checklist: Consideration of Potential for Heritage Resources*.

The checklists are available on the MTCS website: www.mtc.gov.on.ca/en/heritage/renewable_energy.

Depending on the outcome of these checklists, heritage or archaeological assessments may still be necessary. Applicants looking to minimize risk and to achieve a higher level of certainty may choose to undertake heritage and archaeological assessments without filling out the checklists.

All Ontario government ministries and public bodies that are prescribed under Ontario Regulation 157/10 must comply with the *Standards and Guidelines for Conservation of Provincial Heritage Properties*. The Standards and Guidelines apply to property that is owned or controlled by the Crown in right of Ontario or by a prescribed public body. For projects proposed on land to which these Standards and Guidelines apply, if cultural heritage resources are identified, there may be implications for applicants. Ministries and prescribed public bodies must use best efforts (to the extent possible in law) to ensure the ongoing, long-term protection of identified cultural heritage resources. This could result in, for example, conservation requirements being included as a condition of any legal agreement or instrument that transfers property from provincial control to an applicant.

Streamlined Approach for Prescribed Facilities

A streamlined approach assessing cultural heritage applies to:

- **Wind facilities, Class 2**
- **Anaerobic digestion facilities, Class 1 and 2; and**
- **Thermal treatment facilities, Class 1 and located on a farm, Class 2,**

as provided for in section 20 of O. Reg. 359/09. The focus of this assessment is determining if there may be impacts on archaeological resources.

Applicants proposing facilities in these Classes must contact the MTCS and each local and upper tier municipality to determine the following:

From MTC

- **Is the project location within 250 m of an archaeological resource known to MTCS?**
- **Is the facility to be located on a property designated as an archaeological site under Reg. 875 made under the Ontario Heritage Act?**

From Municipalities

- **Is the project location in an area that has been identified on an archaeological management plan?**

If these inquiries lead an applicant to conclude that one of the conditions listed above exists, an archaeological assessment must be completed (see archaeological resources below).

However, if these inquiries lead an applicant to conclude that the project does not meet any of the above conditions, they must include a written summary within the appropriate section of the Design and Operations Report stating this conclusion and the rationale used to arrive at it. In the case of Class 2 wind facilities, this summary must be included in the PDR. Applicants should consult the *MTCS - REA Information Bulletin* for more information on how to meet the requirements under section 20 of O. Reg. 359/09. If an application is found to have not provided adequate evidence that the project does not meet any of the above conditions, the applicant may be required to undertake an archaeological assessment. It is the applicant's responsibility to ensure that information is obtained well in advance of submitting the application in order to minimize the risk of having to do a full assessment at a late stage in project planning.

For facilities other than those prescribed in the streamlined approach, applicants must also address the following cultural heritage resources:

Archaeological Resources

Applicants looking to minimize risk and to achieve a higher level of certainty can hire a consultant archaeologist to undertake an archaeological assessment without first screening to determine the potential for archaeological resources to be present.

Otherwise, applicants must determine if there is the potential for archaeological resources to be present at the project location using the ministry issued *REA Checklist: Consideration of Potential for Archaeological Resources*, as per subsection 21 (3) of O. Reg. 359/09.

If an archaeological assessment is undertaken, as required by clause 21 (2)(a) of O. Reg. 359/09, the archaeological assessment must be conducted by a licensed consultant archaeologist as defined in O. Reg. 8/06 under the Ontario Heritage Act. The archaeological assessment process can include between 1 and 4 stages, beginning with a professional determination of the potential for archaeological resources (Stage 1), followed by a resource inventory (Stage 2), archaeological site assessment (Stage 3) and mitigation (Stage 4), if necessary. If an archaeological assessment is required, either a Stage 2 archaeological assessment or a Stage 1 archaeological assessment (where it is determined that a Stage 2 is not required) must be completed before moving forward with an application to MOE.

The consultant archaeologist must submit a report or reports on the archaeological assessment to MTCS as a requirement under the REA and as a condition of his or her license. MTCS issues letters to consultant archaeologists as part of the licensing process under the Ontario Heritage Act, and may correspond directly with consultant archaeologists where revisions or further assessment is required. Once MTCS is satisfied with the report, MTCS will copy the proponent on the appropriate letter to be submitted to MOE as part of a complete REA application. The letter will clearly state that it constitutes written comments for the purpose of O. Reg. 359/09.

Where more than one report has been prepared for a project as a result of either a requirement for Stage 2 or additional lands requiring assessment, the proponent and MOE will be copied on each of the final letters. The final report(s) as well as the final letter(s) (one for each report) must be included in the REA application to MOE.

If archaeological resources are identified, further stages of work may be required during project development.

All archaeological assessments must be conducted in accordance with the *Standards and Guidelines for Consultant Archaeologists* (2011) issued by the MTCS.

If an applicant determines that there is low potential for archaeological resources to be present at the project location, they must include a written summary of the matters that were considered in completing the checklist within the appropriate section of the Design and Operations Report. The written summary must make reference to the criteria included in the checklist.

Applicants should consult the *MTCS - REA Information Bulletin* for more information on completing the checklist and preparing a written summary.

It is the applicant's responsibility to ensure that determination of low potential for archaeological resources is completed and documented appropriately within the Design and Operations Report in order to minimize the risk of having to do a full assessment at a late stage in project planning.

Heritage Resources and Abutting Protected Properties

Applicants looking to minimize risk and achieve a higher level of certainty can hire a heritage consultant to undertake a heritage assessment without first determining if there are any abutting protected properties and if there is the potential for heritage resources to be present.

Otherwise, applicants must determine if:

- there are any protected properties that abut the parcel of land on which the project location is situated; and
- there is the potential for heritage resources to be present at the project location.

This determination can be made by using the *REA Checklist: Consideration of Potential for Heritage Resources issued by MTCS*, as per clause 23 (2) (a) of O. Reg. 359/09. The *MTCS - REA Information Bulletin* provides guidance on completing the checklist in order to help make this determination.

If a heritage assessment is undertaken, the person undertaking the assessment must follow and report on the heritage assessment requirements outlined in subsections 23 (1) and 23 (2.1) of O. Reg. 359/09. Heritage assessments are conducted by heritage consultants or other qualified persons who have the appropriate expertise in the identification, evaluation and conservation of built heritage resources and cultural heritage landscapes. The heritage assessment report must outline the expertise and experience of the person who conducted the assessment.

All heritage assessments must be submitted to MTCS for review. MTCS will determine whether assessments were conducted in accordance with the regulatory requirements. MTCS will correspond directly with the heritage consultant where revisions or further assessment is required. Once the review is complete and the report finalized, MTCS will copy the proponent on the appropriate letter to be submitted to MOE as part of a complete REA application. The letter will clearly state that it constitutes written comments for the purpose of O. Reg. 359/09.

If an applicant determines that there are no abutting protected properties and that there is low potential for heritage resources, it must include a written summary of the matters that were considered in completing the checklist in the Design and Operations Report. The written summary must make reference to the criteria included in the checklist. Applicants should consult the *MTCS - REA Information Bulletin* for more information on completing a written summary.

It is the applicant's responsibility to ensure that a confirmation of no abutting protected properties and a determination of low potential for heritage resources at the project location is completed and documented appropriately within the Design and Operations Report in order to minimize the risk of having to do a full assessment at a late stage in project planning.

6.1.3. Revisions to Reports and Further Assessment

As a review and commenting ministry, MTCS may correspond with consultant archaeologists and heritage consultants preparing archaeological or heritage assessments throughout the review process. MTCS may request revisions to the reports or additional fieldwork to ensure that the archaeological assessments have met provincial standards, or in the case of heritage assessments, to ensure they have met the requirements of O. Reg. 359/09. Since a technical review may result in multiple letters between the ministry and the consultant archaeologist or heritage consultant, MTCS will indicate the appropriate letter(s) to be submitted by the applicant to MOE as part of a complete REA application.

It should be noted that there is potential for new information to come to light in respect of a cultural

heritage assessment following the issuance of the confirmation letter from MTCS. Changes to the project layout could also result in changes to potential impacts to cultural heritage resources. Under such circumstances, applicants should discuss this new information with their archaeologist and heritage consultants to determine if additional assessment or reporting will be required. If changes are made to reports as a result, applicants should have their archaeologist or heritage consultant discuss these changes with MTCS prior to submitting an application for an REA. In this case, further MTCS review will likely be required and revised or additional letter(s) may need to be submitted to the MOE.

6.2. Natural Heritage Assessment

For the purposes of complying with O. Reg. 359/09, NHA has been described in detail in the "*Natural Heritage Assessment Guide for Renewable Energy Projects*" provided by MNR. This guidance should be consulted for a complete description of natural heritage requirements in the REA and for direction on conducting assessments and preparing reports. All applicants preparing a NHA should refer to this detailed guidance, however some overview information follows to orientate the reader to the general requirements.

While negative environmental effects that will or are likely to occur on natural heritage may be considered for all renewable energy projects, O. Reg. 359/09 has specific requirements for assessing natural heritage for facilities provided in the table below:

Facility Type	Facility Class(es) Requiring a NHA	Description
Wind Facility	Class 3 and Class 4	Name plate capacity of 50 kW or greater
Solar Facility	Class 3	Name plate capacity greater than 10 kW
Bio-energy Facility	All classes	Includes anaerobic digestion, biogas, biofuel and thermal treatment facilities

NHA requirements include assessment requirements (subsection 23 (1) and sections 24 – 28 of O. Reg. 359/09) and prohibition/setback provisions (sections 37, 38, 41, and 43 of O. Reg. 359/09).

The assessment provisions require a staged analysis of natural features in the vicinity of the project, which includes:

1. **Records review** to determine if natural features may exist in the vicinity of the project location. The Table in section 25 of O. Reg. 359/09 provides detail on the nature of the records that must be reviewed and the distances from the project location to particular features that should be considered.
2. **Site investigation** of all air, land and water within 50 m or 120 m of the project location, as defined by the regulation, to determine if additional features exist and to confirm the presence and location of features identified in the records review.

Alternative Investigation – NaturalHeritage

Note that while a physical site investigation is generally required, subsection 26 (1.1) of O. Reg. 359/09 allows for an alternative site investigation where a physical investigation is not reasonable. Applicants should contact MNR if they believe it may be unreasonable to investigate a portion of land within 50 m or 120 m of the project location, as defined by the regulation.

3. **Evaluation of significance** of any identified natural features.

The prohibition/setback requirements stipulate restrictions on engaging in a project through either:

1. Strict prohibitions (i.e. those without exception) on engaging in a renewable energy project.

- For example, subsection 37 (2) of O. Reg. 359/09 prohibits the construction, installation or expansion of most project components within a provincially significant southern or coastal wetland.

2. Prohibitions for which an exception exists (i.e. only permitting development if an Environmental Impact Study is prepared which identifies mitigation measures to address negative environmental effects that will or are likely to occur).

- For example, a renewable energy generation facility is prohibited from being engaged in within a setback distance of 120 meters from a significant woodland (subsection 38 (1) of O. Reg. 359/09) unless an Environmental Impact Study Report is prepared in accordance with the Natural Heritage Assessment Guide, provided by MNR.

An Environmental Impact Study is a report that evaluates the potential impacts of developing within specified features or within a setback distance to a specified feature. The key components of this report (as given in subsection 38 (2) of O. Reg. 359/09) are:

1. Identify and assess negative environmental effects of the project that will or are likely to occur on a natural feature provincial park, or conservation reserve, if applicable, as referred to in subsection 38 (1) of O. Reg. 359/09.
2. Identify mitigation measures to address negative environmental effects that will or are likely to occur.
3. Describe how potential effects will be monitored during operation in the Environmental Effects Monitoring Plan (EEMP).
4. Describe how potential effects will be mitigated during construction.

Applicants proposing a project requiring a NHA should contact MNR at an early stage in the project planning process to discuss how natural heritage requirements apply to their project.

Conservation authorities may also request an Environmental Impact Study to address potential hydrological impacts where a permit is required for development that interferes with a wetland. Applicants are encouraged to consult with the local conservation authority to streamline Environmental Impact Study requirements.

6.2.1. Bird and Bat Monitoring Plans for Wind Facilities

For applicants proposing a Class 3 or 4 wind facility, an EEMP is required in respect of birds and bats (as required by section 23.1 of O. Reg. 359/09). These monitoring plans must be in accordance with the following guidance documents published by the MNR:

For Bird Habitat:

> *"Birds and Bird Habitats: Guidelines for Wind Power Projects"* dated December 2011 as amended from time to time.

For Bat Habitat:

> *"Bats and Bat Habitats: Guidelines for Wind Power Projects"* dated July 2011 as amended from time to time.

Applicants should note that the EEMP for birds and bats can either be a separate document or included within the general EEMP in the Design and Operations Report. However, the portion of the EEMP that relates to birds and bats must be submitted to MNR for review prior to submission of a complete REA application. For this reason it is important for applicants to consider bird and bat monitoring at an early stage of project planning.

With regard to the completion of the NHA, the REA regulation amendments of January 1, 2011 included requirements related to the EEMP for birds and bats under section 23.1 of O. Reg. 359/09, as well as an updated definition for woodlands. Applicants with projects eligible to follow the requirements of the pre-2011 REA regulation are advised that electing to follow any provisions of the amended July 1, 2012 regulation will remove pre-2011 flexibility.

6.2.2. Obtaining a Letter of Confirmation and Comments from the Ministry of Natural Resources

If an applicant, through the provisions described in the sections above, prepares reports associated with an NHA, an Environmental Impact Study, or an EEMP in respect of birds and bats, they must be provided

to MNR for review prior to applying for an REA. The purpose of this review is to ensure that applicants have followed MNR guidance with respect to the assessments and to allow MNR to raise any additional considerations in the interest of preserving natural heritage. Where the review finds that the assessments have been completed following MNR guidance, the applicant will be provided with a letter of confirmation, as well as comments on the EEMP in respect of birds and bats. The reports, letters of confirmation, and the comments received from MNR must be included in the application for an REA. Drafts of the reports must also be made available to the public 60 days in advance of the final public meeting. Further information on consultation activities is provided in Chapter 2 of this guide.

It should be noted that there is potential for new information to come to light in respect of a NHA (or a bird or bat EEMP) following the issuance of the confirmation letter from MNR. Where new information is discovered after the confirmation letter is issued, applicants should discuss this information with MNR to determine if further work is required by the applicant, prior to submitting an application for an REA.

6.3. Water Assessment

The assessment of water bodies for the purpose of submitting an application for an REA is described in further detail in Chapter 8 of this guide. While Chapter 8 provides a more complete explanation of the requirements of a water assessment, this section outlines the general requirements for the purpose of an overview.

While negative environmental effects that will or are likely to occur on water bodies may be considered for all renewable energy projects, O. Reg. 359/09 has specific requirements for assessing water bodies for facilities provided in the table below:

Water assessment requirements include assessment requirements (sections 29 - 31 of O. Reg. 359/09) and prohibition/setback provisions (sections 39, 40, 44, and 45 of O. Reg. 359/09).

The assessment provisions generally require a staged analysis of natural features in the vicinity of the project that includes:

1. **Records review** to determine if water bodies may exist in the vicinity of the project location. The Table in section 30 of O. Reg. 359/09 provides detail on the nature of the records that must be reviewed and the distances from the project location to particular water bodies that should be considered.
2. **Site investigation** of all land within 120 m of the project location to determine if additional water bodies exist and to confirm the presence and location of water bodies identified in records review. Site investigation may include an additional investigated area if a lake trout lake at or above development capacity is identified within 300 m of the project location. In this case land between the project location and the lake trout lake must also be investigated for the purpose of confirming the boundary of the lake trout lake and its distance to the project location.

Facility Type	Facility Class(es) Requiring a Water Assessment	Description
Wind Facility	Class 3 and Class 4	Name plate capacity of 50 kW or greater
Solar Facility	Class 3	Name plate capacity greater than 10 kW
Bio-energy Facility	All classes	Includes anaerobic digestion, biogas, biofuel and thermal treatment facilities

Alternative Site Investigation – Water Bodies

Note that while a physical site investigation is generally required, subsection 31 (3) of O. Reg. 359/09 allows for an alternative site investigation where physical investigation is not reasonable. Applicants should contact the Environmental Approvals Access and Service Integration Branch in the Environmental Approvals Branch at MOE to discuss alternative site investigation if they believe physical investigation is not reasonable.

The prohibition/setback requirements stipulate restrictions on engaging in a project through either:

1. Strict prohibitions (i.e. those without exception) on engaging in a renewable energy project.

- For example, section 39 strictly prohibits the construction, installation or expansion of a class 3 or 4 wind facility within 30 m of the average annual high water mark of a lake, or stream, or 30 m of a seepage area.

2. Prohibitions for which an exception exists (i.e. only permitting development if a supplementary report documenting any additional mitigation measures is prepared).

- For example, a renewable energy generation facility is prohibited from being engaged in within a setback distance of 120 m of the average annual high water mark of a permanent or intermittent stream (section 40 of O. Reg. 359/09) unless a supplementary report documenting any additional mitigation measures is prepared.

A supplementary report documenting any additional mitigation measures is required to evaluate the impact of developing a renewable energy generation facility within specified setback distances to water bodies. The key components of this report are:

1. Identification and assessment of negative environmental effects that will or are likely to occur on the water body and on the land within 30 m of the water body nearest to the project location (to capture any impacts on the riparian zone).
2. Identification of measures to mitigate negative environmental effects that will or are likely to occur.
3. Description of how negative environmental effects that will or are likely to occur will be addressed in the EEMP.
4. Describe how negative environmental effects that will or are likely to occur will be mitigated during construction.

As noted above, further detail on the water assessment and the supplementary report documenting any additional mitigation measures, can be found in Chapter 8 of this guide.

6.4. Additional Requirements for Land Use Planning Areas

Projects located on land protected by key provincial plans (Greenbelt, Lake Simcoe Watershed, Niagara Escarpment, Oak Ridges Moraine) may have additional approval, setback and reporting requirements under O. Reg. 359/09. Following are examples of these requirements:

Greenbelt Plan

If the proposed renewable energy generation facility is located in the Protected Countryside (other than a settlement area) as described in the Greenbelt Plan, the NHA will also assess additional natural features such as sand barrens, savannahs, tallgrass prairies, non-provincially significant wetlands, life science Areas of Natural and Scientific Interest (ANSIs) and alvars. Natural Heritage setback distances and Environmental Impact Study requirements will apply to these features.

See section 41 of O.Reg. 359/09 for more information on requirements under the REA.

The Ministry of Municipal Affairs and Housing has information on its website related to the Greenbelt plan, including maps, at http://www.mah.gov.on.ca/Page187.aspx.

Lake Simcoe Watershed

If any part of the project location is within the Lake Simcoe Protection Plan Area applicants are required to include additional information in the Design and Operations Report. Specifically they must describe project impacts on the shore of Lake Simcoe as well as a description of how the project will be engaged in to maintain the natural contour of the shoreline and maintain vegetative riparian areas.

See Table 1 of O. Reg. 359/09, Item 4: Design and Operations Report, Column 2, paragraph 6 for more information on requirements under the REA.

The Ministry of the Environment has information on its website related to the Lake Simcoe Protection Plan, including maps, at http://www.ene.gov.on.ca/en/water/lakesimcoe/index.php.

Niagara Escarpment Plan

If the proposed renewable energy generation facility will be located in the area of the Niagara Escarpment Plan (NEP) area, applicants may require development permits from the Niagara Escarpment Commission (NEC). If a development permit is required, applicants will be required to submit a copy of the permit obtained from the NEC as part of their complete REA application.

It is recommended that applicants contact the NEC as early as possible for a complete list of information that will be required in order to obtain a development permit. Applicants are also encouraged to set-up a joint meeting with the MOE and NEC, early in the process, to discuss all the requirements for projects proposed within the NEP area including how to optimize the timing of permit issuance.

In addition to obtaining any required development permits, applicants proposing facilities in the NEP area must provide draft project documents to the NEC 90 days in advance of the final public meeting, or 30 days in advance when there is no public meeting, as per section 32 of O. Reg. 359/09. These drafts are:

- **Project Description Report**
- **Design and Operations Report**
- **Construction Plan Report**
- **Decommissioning Plan Report**

The Niagara Escarpment Commission has information on its website related to the Niagara Escarpment Plan, including maps, at http://www.escarpment.org/landplanning.

Oak Ridges Moraine Conservation Plan

If any part of the project location is within the area designated as Oak Ridges Moraine, the NHA will also assess additional natural features such as sand barrens, savannahs, non-provincially significant wetlands, life science ANSIs and tallgrass prairies. Natural Heritage setback distances and Environmental Impact Study requirements will apply to these features.

Consult sections 42 - 46 of O. Reg. 359/09 for more information on requirements under the REA.

The Ministry of Municipal Affairs and Housing has information related to the Oak Ridges Moraine Conservation Plan, including maps, at http://www.mah.gov.on.ca/Page1707.aspx.

These requirements must be taken into account in the NHA, water assessment, and the additional REA reports that must be prepared as part of an application for an REA.

In addition to the specific requirements related to provincial plans in O. Reg. 359/09, applicants are encouraged to broadly consider the policy intent of the relevant plan when designing their project in a protected area.

7. Completing REA Reports

To submit a complete application for a REA, many reports are required. Several sources of information exist for identifying the reports that are required for each renewable energy technology type and class of facility. Table 1 of O. Reg. 359/09 describes the required content of all the principal REA reports that must be submitted as part of a complete application. Applicants should note that some sections of the regulation outside of Table 1 require additional reports and are advised to become familiar with the regulation as a whole. To assist with determining what reporting requirements may apply, applicants can also refer to Appendix 1 which includes a matrix of REA requirements by technology type and class. Finally, Chapters 2 – 8 of this guide cover the content of the principal REA reports while Chapter 9 describes other reports that may be required depending on the specific details of the project.

7.1. Report Content

The purpose of REA reports is to provide a detailed account of the project proposal, describing negative environmental effects that will or are likely to occur and demonstrating how facility design measures have been included to mitigate these effects. Reports also provide details on the studies and investigations conducted to evaluate negative environmental effects that will or are likely to occur, as well as discuss plans for ongoing monitoring activities and plans for decommissioning the facility at the end of the project life. One key report, the Consultation Report, provides information on all of the consultation activities undertaken in advance of submitting an application, including comments received from various stakeholders and how the project plans were modified to address comments. The following chapters further describe the content that should be included in the principal REA reports. These are:

- Chapter 2, Part II: The Consultation Report
- Chapter 4: The Project Description Report (PDR)
- Chapter 5: The Construction Plan Report
- Chapter 6: The Design and Operations Report
- Chapter 7: The Decommissioning Plan Report (DPR)
- Chapter 8: The Water Assessment Report and the supplementary report documenting any additional mitigation measures.

Chapter 9 provides an overview of content (and links to additional guidance) for all additional reports that may be required under the REA.

7.2. Report Timing

The timing of the generation of reports spans the pre-application phase of the REA process. For instance, a draft PDR may be completed at a very early stage in project planning so that Aboriginal consultation can commence. On the other hand, the Consultation Report can only be finalized following the final public meeting, near the end of the pre-application phase. It is the applicant's responsibility to determine the optimal timing for completion of reports for their project. However, O. Reg. 359/09 does have some requirements for making such reports available to the public, Aboriginal communities, and municipalities for the purposes of consultations. Applicants are required to meet these timing requirements in order to be able to submit a complete application. These timelines are outlined in the following sections, 7.2.1 and 7.2.2.

7.2.1. The Project Description Report

The table below shows all regulated timing constraints for sharing the PDR. This table applies for all REA applications, except those in respect of the following facility types, which do not require public meetings:

- Class 2 wind facilities
- Class 1 or 2 anaerobic digestion facilities
- Class 1 thermal treatment facilities, if the generating unit of the facility is located at a farm operation
- Class 2 thermal treatment facilities

Regulated Action for the Project Description Report (not for Class 2 wind, Class 1 or 2 anaerobic digestion, Class 1 thermal treatment, if on a farm, and Class 2 thermal treatment)	**Timing Constraints**
Submitted to MOE (Director) so the ministry can generate an Aboriginal Consultation List	Prior to all other consultation activities
Made publicly available for consultation in advance of the first public meeting	At least 30 days in advance of the first public meeting
Sent to all municipalities in which the project is located (upper and lower tier) for municipal consultation as well as to all local roads boards and service boards	At least 30 days in advance of the first public meeting
A later draft PDR sent to all municipalities* (in conjunction with other draft REA reports) for municipal consultation as well as all local roads and service boards	At least 90 days in advance of the final public meeting
Circulated to all Aboriginal communities on the Aboriginal Consultation List	Prior to making all draft reports available to the public as below
Made publicly available (along with remainder of required reports) for consultation in advance of the final public meeting	At least 60 days in advance of the final public meeting
A final version submitted as part of a complete application for an REA	At the time of submitting a complete application
A final version published on the applicant's website (if one exists) following the submission of a complete application. See Chapter 2 for more information on this requirement	Within 10 days of the notice of proposal being posted on the Environmental Registry by the MOE

* A draft PDR must also be sent to the Niagara Escarpment Commission if the project is located within the Niagara Escarpment Plan area.

For Class 1 or 2 anaerobic digestion facilities, Class 1 thermal treatment facilities (if the generating unit of the facility is located at a farm operation) and Class 2 thermal treatment facilities, public meetings are not required, however municipal and Aboriginal consultation requirements must still be met. For this reason, a revised schedule of requirements for providing the PDR for these types of facilities is as follows:

Regulated Action for the Project Description Report (for Class 1 or 2 anaerobic digestion, Class 1 thermal treatment, if on a farm, and Class 2 thermal treatment only)	**Timing Constraints**
Submitted to the MOE (Director) so the ministry can generate an Aboriginal Consultation List	Prior to all other consultation activities
Circulated to all Aboriginal communities on the Aboriginal Consultation List	At least 30 days in advance of submitting a complete application
Sent to all municipalities in which the project is located (upper and lower tier) for municipal consultation as well as to all local roads and service boards	At least 30 days in advance of submitting a complete application
A final version submitted as part of a complete application for an REA	At the time of submitting a complete application
A final version published on the applicant's website (if one exists) following the submission of a complete application. See Chapter 2 for more information on this requirement.	Within 10 days of the notice of proposal being posted on the Environmental Registry by the MOE

For Class 2 wind projects, a draft PDR must be sent to all municipalities in which the project is located as well as any local roads boards and local service boards at least 30 days prior to submitting an application for a renewable energy approval.

7.2.2. All Other REA Documentation

Drafts of all required reports must be made available to the public, Aboriginal communities and municipalities according to the timelines in the table below:

Regulated Action for Other Required Reports (not for Class 1 or 2 anaerobic digestion, Class 1 thermal treatment, if on a farm, and Class 2 thermal treatment)	**Timing Constraints**
Drafts sent to all municipalities* for municipal consultation as well as all local roads and service boards.	At least 90 days in advance of the final public meeting
Drafts made publicly available for public consultation in advance of the final public meeting*	At least 60 days in advance of the final public meeting
Drafts sent and made available to Aboriginal communities for consultation in advance of the final public meeting*	At least 60 days in advance of the final public meeting
A final version submitted as part of a complete application for an REA	At the time of submitting a complete application
A final version published on the applicant's website (if one exists) following the submission of a complete application. See Chapter 2 for more information on this requirement.	Within 10 days of the notice of proposal being posted on the Environmental Registry by the MOE

* Drafts sent to municipalities and made publicly available in advance of the final public meeting do not need to be inclusive of the confirmation and comment letters from the MNR or the MTCS in respect of natural heritage or cultural heritage assessments.

As indicated in the table, the table does not apply to:

- Class 1 or 2 anaerobic digestion facilities
- Class 1 thermal treatment facilities, if the generating unit of the facility is located at a farm operation
- Class 2 thermal treatment facilities

For these types of facilities final reports must be submitted to MOE as part of a complete application. When an application is deemed complete and accepted for review, the final reports must then also be published on the applicant's website (if one exists). Chapter 2 contains further information on this requirement.

Note that in addition to making draft REA reports available to all Aboriginal communities on the Aboriginal Consultation List, summaries of these reports and additional information on Aboriginal rights or interests that may be impacted by the project must also be provided in advance to each Aboriginal community. More information on this requirement (including minimum timelines) is given in Chapter 2, section 2 which describes Aboriginal consultation.

8. Consultation

Consultation is a critical component of the REA process. The REA regulation contains numerous regulated minimum consultation requirements to ensure that the public, municipalities, Aboriginal communities and other stakeholders are notified about projects and provided an opportunity to provide feedback and information to the applicant.

To emphasize the importance of consultation and to group information in an easily accessible manner, consultation requirements and guidance for preparing the Consultation Report are addressed in a separate chapter of this guide. Chapter 2 provides detailed information about the consultation process and all applicants should make themselves familiar with this chapter in conjunction with reading the regulation itself.

Applicants should also refer to Chapter 11 which provides tips for applicants on how to be a good neighbour in the local community by going beyond the minimum regulatory requirements.

While Chapter 2 is the location for the comprehensive discussion of consultation requirements, to assist with the overview of the REA process, the section that follows provides a brief overview of these requirements.

8.1. Consultation Overview

Chapter 2, Figure 6 depicts the key steps in the REA consultation process including the minimum timelines related to particular requirements. This diagram only applies to projects that require public meetings. Class 2 wind facilities, Class 1 or 2 anaerobic digestion facilities, Class 1 thermal treatment facilities (if the generating unit of the facility is located at a farm operation) and Class 2 thermal treatment facilities do not have mandatory public meeting requirements. However, there are additional notification, document dissemination and other consultation requirements for these projects and Chapter 2 provides more information. Chapter 2 also conveys requirements related to how notices must be published and provided, how the municipal consultation form must be provided, and requirements related to where meetings must be held, among others. Chapter 2, Figure 6 does not capture all the requirements that must be met and should be considered as an overview only.

O. Reg. 359/09 sets out specific requirements for each type of renewable energy project that must be met prior to submitting an REA application. Where applicants have not adequately described negative environmental effects or consultation was not satisfactory, the Director has the discretion to require additional notifications, consultations or studies.

Applicants must meet or exceed the minimum regulated consultation requirements, in order for an application to be deemed complete. Providing a detailed account and including evidence of how consultation was undertaken in the Consultation Report is critical for the MOE to determine that the requirements were met.

9. Operational Flexibility

Operational flexibility allows applicants to make some modification to their facility's operations or works without having to seek an amendment to their REA. Operational flexibility refers to changes that may be pre-approved as part of an applicant's renewable energy project when the REA was first issued. These pre-approved changes are intended to apply to routine maintenance adjustments and other environmentally insignificant operational changes.

Many types of minor changes to renewable energy projects for which an REA has been issued can avoid triggering the need for amendments, and the consequent fees, by ensuring that a sufficient degree of operational flexibility is described and assessed in the original application. Proponents are therefore encouraged to carefully consider and plan in advance the degree of operational flexibility they will require, before submitting an application to the MOE.

Examples of operational changes that may be permitted as part of an REA include:

- Routine modifications to the facility with predictable effects that are environmentally insignificant and do not extend the project location, such as replacing a fence or resurfacing an existing parking lot;
- Seasonal changes to facility hours of operation;
- Decrease in the project location size;
- Decrease in the number of project components or infrastructure, including:
    - Transformer substation(s)
    - Wind turbines
    - Solar inverter/transformer cluster(s)
    - Generating unit(s)
- Decrease in the amount of waste to be processed daily and/or annually.

By contrast, examples of changes that would not be allowed within the terms and conditions of an REA are:

- Changing facility classification (e.g. from a Class 2 to a Class 3 Anaerobic Digestion facility or replacing a Class 2 wind facility with a Class 3 wind facility);
- Proposing the movement of a project to a completely new location.

The approval of operational flexibility is assessed on a project specific basis by the Director as part of the initial REA application review for the project. Proponents must describe any desired operational flexibility parameters for their project in their REA application for consideration.

10. Application Submission and Review

When all consultation and report requirements have been completed and the applicant has determined that the project will meet all the setback and prohibition requirements of O. Reg. 359/09, the applicant may submit an application to MOE for an REA. To submit an application, applicants must download and complete an application form. This form is entitled "*Application for Approval of a Renewable Energy Project*" and it is available from the renewable energy section of the MOE's website as a print only document (Publication #7216e01) and an electronic smart form (Publication #7216e). The application form should be accompanied by copies of all project documentation required for a complete submission. This submission should be made by sending three paper copies of the application package as follows:

- Two (2) to the Director, Environmental Approvals Access and Service Integration Branch
- One (1) to the nearest MOE Regional or District Office.

The ministry also requests that applicants submit a digital copy of all application documents to the MOE's Environmental Approvals Access and Service Integration Branch. If applicants have questions about the logistics of submitting applications they should contact the Environmental Approvals Access and Service Integration Branch.

10.1. Application Fees

As with other environmental approvals, an application for an REA requires the submission of an application fee to cover costs associated with the review of the application. More information on application fees for REAs can be found in the following MOE publications:

"Renewable Energy Approval (REA) Fees & Refunds," 2011 Publication #8139e

"FAQs on REA Fees and Refunds," 2011 Publication #8141e

These publications can be obtained from the renewable energy section of the MOE's website.

10.2. Completeness Check

Upon receiving a submitted application, the ministry will determine if the application can be accepted for review through a completeness check. The completeness check simply reviews the submitted reports to determine if all the required content (for instance in Table 1 of O. Reg. 359/09) has been included. The completeness check will also examine the Consultation Report in detail to ensure that all the consultation requirements and timelines were adhered to during the pre-application phase. To make this completeness check more transparent to applicants and to assist them in preparing complete applications, the ministry has published the "*Checklist for Requirements under O. Reg. 359/09*" that itemizes all required content. The checklist will be used by ministry staff to confirm completeness and is available in Appendix 5 and under the renewable energy section of the ministry's website as Publication #7746e.

If an application is determined to be complete the applicant will be notified and the review phase will commence. If the application is determined to be incomplete, the applicant will be notified and the deficiencies that led to the not-complete determination will be identified to the applicant. If an application is not accepted, the applicant must address all deficiencies identified prior to resubmitting a complete application.

10.3. Application Review

The acceptance of a complete application for review starts the clock on the ministry's six month service standard for reaching a decision on the application. The start of

the review phase also places some additional regulated requirements related to consultation.

10.3.1. Environmental Registry Posting and Public Notification

Consultation is a critical component of the REA process, and the review phase includes a final mechanism for public consultation. In most cases, REA applications are subject to a minimum 30 day public comment period on the Environmental Registry. This online registry, found at www.ebr.gov.on.ca will present proposal notices for all accepted REA applications that are undergoing a decision. When an application has been accepted, the ministry will prepare a proposal notice based on information in the REA application. This notice will then be posted with an active comment period for a minimum of 30 days. In some cases, the comment period may be extended beyond the 30 day minimum. During this time, the public can review the proposal notice and provide comments directly to the MOE about the application. All comments submitted during the comment period must be considered by the MOE when evaluating an REA application.

It should be noted that there are limited exceptions where section 22 of the Environmental Bill of Rights, 1993 (EBR) does not apply to a project and a minimum 30 day comment period is not required for the proposal. However, in these cases the MOE's policy will be to post an information notice of the proposal to the Environmental Registry.

To maximize the potential of this final opportunity for consultation, subsections 15 (1) and 15 (2) of O. Reg. 359/09 require applicants to notify the public that the application is under review and to post all final submitted documents to their website (if one exists) within 10 days of the proposal being posted to the Environmental Registry.

For notification, applicants are required to publish a notice in similar locations to those required for other project notices:

- If the project location is situated in a local municipality, the notice must be published in a newspaper with general circulation in the local municipality.
    - If the project is located in more than one local municipality the notice should be posted in a newspaper or newspapers with circulation in each local municipality.
- If the project location is in unorganized territory, the notice must be published in a newspaper with general circulation within 25 kilometres (km) of the project location.
    - If no newspaper exists, the notice must be posted in at least six conspicuous locations within 25 km of the project location.

Notice content is defined in subsection 15 (2) of O. Reg. 359/09 to include the following:

1. The name of the person proposing to engage in the renewable energy project.
2. A brief description of the renewable energy project.
3. A map identifying the project location.
4. If the person has posted documents on their website, the address of their website.
5. A statement that a proposal for an REA in respect of the renewable energy project has been posted on the environmental registry and that comments in respect of the proposal may be submitted to the Director.

By requiring these actions, the regulation ensures that the public and all stakeholders are aware that the application is under review, that they have an additional opportunity to comment, and that they can review the final project documents. One key document that can be reviewed at this stage is the Consultation Report. In this report, described further in Chapter 2 – Part 2, the applicant will detail how consultation was conducted, what comments were received, and how the project was modified to address comments, if applicable. By making this report publicly available at the start of the Environmental Registry comment period, interested people and organizations can evaluate for themselves whether concerns raised at earlier stages of project planning were adequately considered. Should an interested person or organization, upon reading the final documents, wish to comment directly to the ministry about the project, there is still an opportunity to do so.

10.3.2. Director May Request More Information

By specifying upfront requirements for such items as setback distances, cultural and NHA, content of reports, and consultation activities, the REA has been designed to allow for a streamlined review of a complete application. While the intent of O. Reg. 359/09 is to provide clear expectations, circumstances may arise that cause the Director to put the review on hold and request that an applicant provide more information related to the project.

Under subsection 47.4 (2) of the EPA, the Director has the power to require an applicant:

> *"to submit any plans, specifications, engineers' reports or other information and to carry out and report on any tests or experiments relating to the renewable energy project."*

The MOE expects that such requests will be made rarely, but some circumstances that could lead to a request for more information include:

- Where the Director believes that further information is needed to understand the potential for combined environmental effects from other projects to change the applicant's assessment of negative environmental effects that will or are likely to occur.
- Where a significant negative environmental effect that will or is likely to occur is identified during the review phase (e.g. during the Environmental Registry posting) that requires a technical investigation to resolve.

If such a circumstance arises, the REA review time may be extended by the time it takes for the requested information to be submitted.

10.4. Director Issues a Decision

When the ministry completes the review of the REA application and all comments received during the EBR posting have been considered, the Director will issue a decision on the application. This decision will be to approve the project, likely subject to terms and conditions, or to refuse to approve the project. At the same time that an applicant is notified of the decision, a decision notice will be posted on the Environmental Registry to notify the public about the decision.

For applications that receive an REA, the Director may attach conditions to the approval. Conditions can include timelines for starting construction, revising decommissioning plans, implementing procedures for recording complaints about adverse effects from the facility, and/or building the facility according to plans in the application documents, among others. Conditions of approval are legally binding and can be enforced through the ministry's compliance policies.

11. Hearing by the Environmental Review Tribunal

The REA process features a unique third-party hearing provision. When a decision is made to approve an REA, any Ontario resident may require a hearing in respect of the Director's decision to the Environmental Review Tribunal (ERT). In order to initiate the hearing process, the notice must be served on the ERT within 15 days of the decision to grant the REA being posted on the Environmental Registry. As per subsection 142 .1 (3) of the EPA, the person requiring the hearing has the onus of establishing that the decision to issue an REA for the project will cause:

- Serious harm to human health; or
- Serious and irreversible harm to plant life, animal life or the natural environment.

Subject to some qualifications, the ERT has six months from the date an appeal is filed to issue a decision.

The ERT publication "*A Guide to Appeals regarding Renewable Energy Approvals under section 142.1 of the Environmental Protection Act*" available at the ERT's website (http://www.ert.gov.on.ca/english/guides/index.htm) provides additional information on the appeals process.

Chapter 2

Consultation Requirements and guidance
for preparing the Consultation Report

PART 1: Consultation Requirements

1. Goals of Consultation under the REA

Consultation is a critical component of the Renewable Energy Approval (REA) process allowing for a two-way exchange of information between the REA applicant and interested or potentially affected local groups, Aboriginal communities, members of the public as well as municipalities and local boards. Consultation should educate and inform local communities about the project, including the location and negative environmental effects that will or are likely to occur, to help ensure that concerns are identified early and addressed where possible, in a transparent manner. Consultation also enables applicants to obtain and use local knowledge in their project designs and in the assessment of negative environmental effects that will or are likely to occur.

The main goals of consultation in the REA process are:

- To ensure that relevant information about the renewable energy project proposed to be developed is provided to the relevant Aboriginal communities, members of the public, municipalities and local boards;
- To obtain/identify relevant information/local knowledge from the local community, municipalities and Aboriginal communities;
- To identify concerns that may arise from the proposed renewable energy project; and
- To address concerns by way of providing additional information, explanation, changing project design or making commitments in response to local input.

To help achieve these goals, O. Reg. 359/09 provides clear and transparent minimum requirements for consultation with Aboriginal communities, municipalities and the public. These minimum requirements involve rules for notification and consultation with Aboriginal communities, public notification, holding public meetings, making reports available, and engaging municipalities. The following sections outline these requirements to assist applicants with conducting meaningful consultation.

It is important to emphasize that O. Reg. 359/09 stipulates the absolute minimum requirements that must be met in order to submit a complete REA application. Applicants are recommended to consider ways in which consultation can be enhanced beyond the minimum standards to fully engage the local community and stakeholders. Detailed and fulsome discussion of the project will improve REA applications by ensuring all concerns are heard, evaluated and addressed, if appropriate.

Consultation is one important aspect of being a good neighbour. All applicants for an REA should read Chapter 11 of this guide which provides tips for being a good neighbour by going beyond the minimum regulatory requirements.

1.1. Consultation Requirements Overview

Figure 6 below depicts the key steps in the REA consultation process including the minimum timelines related to particular requirements.

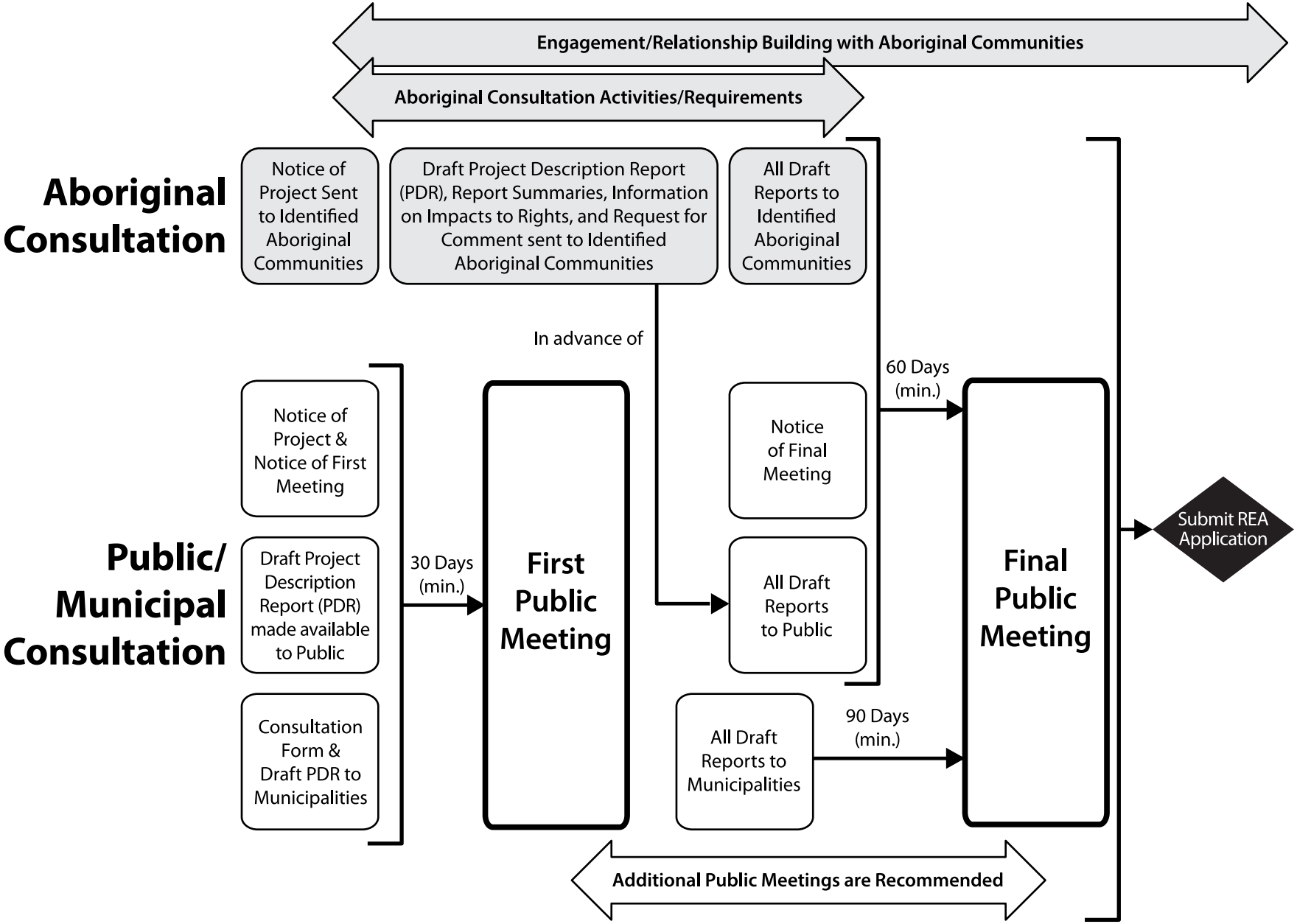

Figure 7. Overview of consultation requirements in the REA application

This diagram only applies to projects that require public meetings. Class 2 wind facilities, Class 1 or 2 anaerobic digestion facilities, Class 1 thermal treatment facilities (if the generating unit of the facility is located at a farm operation) and Class 2 thermal treatment facilities do not have mandatory public meeting requirements.

However, there are additional notification, document dissemination and other consultation requirements for these projects and the sections below provide more information on timing. For the purposes of this section, these types of projects will be referred to as "projects that don't require public meetings".

2. Aboriginal Consultation

Consultation with Aboriginal communities is required for all renewable energy projects that require an REA. With the exception of Class 2 wind facilities, all REA applicants must meet specified Aboriginal consultation requirements under sections 14 - 17 of O. Reg. 359/09.

2.1. Ministry Guidance on Aboriginal Consultation

The Ministry of the Environment (MOE) has developed guidance on Aboriginal consultation for the purpose of obtaining an REA. In light of this further guidance, this chapter will simply provide an overview of the minimum consultation requirements under O. Reg. 359/09. The *Aboriginal Consultation Guide for preparing a Renewable Energy Approval (REA) Application* should be read by all applicants who need to conduct Aboriginal consultation as part of their REA application. The Aboriginal Consultation Guide can be found on the Ministry's website.

2.2. Brief Overview of Regulatory Requirements for Aboriginal Consultation

Applicants in respect of all renewable energy projects, except for Class 2, wind facilities must conduct consultation with Aboriginal communities. The first step in this consultation process is for the applicant to obtain a list of communities that must be consulted (the "Aboriginal Consultation List") from the MOE.

Obtaining an Aboriginal Consultation List

To obtain an Aboriginal Consultation List, the applicant must provide the Director with a draft of the Project Description Report (PDR). Further guidance on preparing this report is provided in Chapter 4 of this guide, including specific guidance on the content needed in the draft PDR for the purpose of obtaining an Aboriginal Consultation List.

Upon receiving the draft PDR the ministry will coordinate, across the Ontario Government, the generation of a list of Aboriginal communities that may have constitutionally protected Aboriginal or treaty rights that may be adversely affected by the project or those that may have an interest in negative environmental effects of the project that will or are likely to occur. Once the list is generated, it will be provided to the applicant so that the applicant may use the list to notify Aboriginal communities of the project and conduct consultation.

Conducting Consultation Activities

Aboriginal consultation can include a range of activities (i.e. notification, meetings, more in depth discussions, etc.) that can proceed through the pre-application phase and may also include dialogue throughout the project life. The *Aboriginal Consultation Guide for preparing a Renewable Energy Approval (REA) Application* provides more direction on how to scope consultation activities to adequately consult with Aboriginal communities that have been provided to an applicant on the Aboriginal Consultation List.

Disseminating Reports and Report Summaries

One of the minimum requirements for Aboriginal consultation under the REA process is that applicants must provide project notices, draft documents and document summaries to communities on their

Aboriginal Consultation List. These requirements have timing implications for the REA process and they are described here.

All applicants, except those applying in respect of a Class 2 wind facility, must provide the following documents to all identified Aboriginal communities:

1. A draft of the Project Description Report (PDR);
2. Any information the person has regarding any adverse impacts that the project may have on constitutionally protected Aboriginal or treaty rights that the community may have identified as being adversely impacted by the project;
3. A written summary of each report (with the exception of the Consultation Report) that will be submitted as part of the REA application; and
4. A written request to the community to provide any information (in writing) that, in the opinion of the community, should be considered in preparing any of the reports summarized above.

For applications that involve mandatory public meetings this package of documents and request for information must be sent to all identified communities in advance of the applicant making draft reports available to the public (i.e. the 60 day minimum timeline under section 16 of O. Reg. 359/09).

Drafts of all of the documents (other than the Consultation Report and written confirmation and comment letters from the MNR and MTCS) must be sent and made available to the identified Aboriginal communities at least 60 days in advance of the final public meeting. Draft documents may be sent to the identified Aboriginal communities in paper or electronic format as preferred by the Aboriginal community.

For applications in respect of facilities that don't require public meetings, the above documents and request for information should be provided to all identified Aboriginal communities a minimum of 30 days in advance of submitting an application for an REA. In addition, applicants are required to communicate with Aboriginal communities regarding any constitutionally protected Aboriginal or treaty rights that a community identifies as being adversely impacted as well as measures for mitigating any adverse impacts.

3. Notices of the Project and of Public Meetings

A critical element of consulting on a renewable energy project is providing notification to the public and other key stakeholders. The REA regulation has a number of requirements stipulating when and how notification should be made. Generally, applicants are required to provide notification about the project proposal itself, when and where public meetings will take place, as well as notification that an application has been submitted for review by the ministry. The following sections describe these requirements in more detail.

3.1. Notice of Proposal to Engage in a Project

All renewable energy projects that require an REA, regardless of class or energy source, require a Notice of Proposal to Engage in a Project to be issued. The content of this notice includes a brief description of the project proposal including a map of the project location as well as contact information of the applicant.

In preparing a Notice of Proposal to Engage in a Project, applicants must use the content/format of the template entitled "*The Renewable Energy Approval – Notice of a Proposal to Engage in a Renewable Energy Project s. 15 (1)(a) Ontario Regulation 359/09*". This template can be found in Appendix 3 and on the ministry's website in the renewable energy resources section.

With respect to timing constraints, the Notice of Proposal to Engage in a Project is one of the first steps in consultation; a notice must be issued a minimum of 30 days in advance of the first public meeting held for the project. As will be described in the next section, if a Notice of a Public Meeting is also required, both the meeting and project notices can be issued together.

For projects that do not require public meetings, the Notice of Proposal to Engage in a Project must be issued at least 30 days before the application for an REA is submitted to the ministry.

3.2. Notice of Public Meeting(s)

If an applicant is required to hold public meetings, a Notice of a Public Meeting must be issued in advance of the required meetings. The Notice of a Public Meeting includes similar information to the Notice of Proposal to Engage in a Project, with additional information about where and when one or more meetings will take place and where the public can go to view project documents in advance of the meeting.

The Notice of a Public Meeting must be in the form of the template entitled "*The Renewable Energy Approval – Notice of Meetings 15 (1) (b) Ontario Regulation 359/09*." This template can be found in Appendix 3 and on the ministry's website in the renewable energy resources section. Where an applicant wishes to do so, the Notice of Proposal to Engage in a Project and the Notice of a Public Meeting, may be distributed together.

The Notice of Public Meeting must be distributed at least 30 days before the first public meeting. A separate Notice of Public Meeting must be issued at least 60 days in advance of the final public meeting if the date and location of the second public meeting was not disclosed as part of the first notice.

3.3. Distribution of Notices

As per section 15 of O. Reg. 359/09, applicants are required to publish notices in a number of locations and provide them to a number of organizations/people. These are:

Publication

- If the project location is situated in a local municipality, the notice must be published on at least two separate days in a newspaper with general circulation in the local municipality.
    - If the project is located in more than one local municipality the notice should be posted in a newspaper or newspapers with circulation in each local municipality.
- If the project location is in unorganized territory, the notice must be published on at least two separate days in a newspaper with general circulation within 25 km of the project location.
    - If no newspaper exists, the notice must be posted in at least six conspicuous locations within 25 km of the project location. If the project location is not close to a developed settlement, applicants may consider posting the Notice(s) at the nearest road intersection within 25 km of the project location as well as on the project location. The size of such notice may be adjusted to increase its visibility.
- If it is reasonable to do so, the notice must be published in a newspaper printed by each Aboriginal community on the Aboriginal Consultation List.
    - The publication in a newspaper in an Aboriginal community requires the publisher of the newspaper to agree to the notice's publication.
- If the applicant has a website, the notice must be posted on the applicant's website.
- While it is not a legal requirement, buildings frequented by the local community members such as libraries, community centres, municipal office buildings, local grocery stores, First Nations band offices and post offices should be considered for posting project notice(s), where it is permitted to do so.

Notice Provided To

Copy of the notices must also be provided to:

- Every assessed owner of land within 120 m of the project location, if the project involves a facility other than a Class 3, 4, and 5 wind facility (see inset for notice rules for these projects);

Notification of Landowners (Class 3, 4 and 5 Wind)

For larger wind facilities (Class 3, 4 and 5), notice must be provided to every assessed landowner within 550 m of the project location. This rule ensures all potentially affected landowners are specifically notified.

- Every assessed owner of land abutting a parcel of land on which the project is located;
- Every Aboriginal community on the applicant's Aboriginal Consultation List;
- The clerk of every local and upper-tier municipality in which the project is located;

- The secretary-treasurer of each local roads board of a local roads area in which the project location is situated;
- The secretary of each Local Services Board of a board area in which the project location is situated;
- The secretary-treasurer of a planning board that has jurisdiction in an area in which the project location is situated;
- The chair of the Niagara Escarpment Commission, if the project location is in the area of the Niagara Escarpment Plan;
- The Director at MOE as well as the ministry's district manager in each district in which the project location is situated;
- The secretary of every company operating an oil or natural gas pipeline if the pipeline right of way is within 200 metres of the project location;
- The land use office of NAV Canada (class 3, 4 and 5 wind facilities only); and
- Transport Canada's Regional Office for Ontario (class 3, 4 and 5 wind facilities only).

Local municipalities may be able to provide assistance to applicants with identifying organizations/people to which notification is required (i.e. companies operating an oil or natural gas pipeline). In the cases where the applicant is unable to ascertain the name of the party to be notified, as outlined in O. Reg. 359/09 (e.g. the secretary of every company operating an oil and natural gas pipeline if the pipeline right of way is within 200 metre of the project location), the applicant may send the notice to the corporate address of the company, addressing it to the required title/position (i.e. to the attention of the "secretary").

The above list is a minimum requirement but not exhaustive. Applicants are encouraged to also provide notice to other potentially interested persons that the applicant is aware of (such as landowners in the vicinity of the project location, local interest groups, businesses, and members of the public that may be affected by some aspect of the project). For small-scale projects with minimal negative environmental effects and low public concern, providing notices to the above list will likely be adequate. However, for larger projects with more significant negative environmental effects that will or are likely to occur and high levels of public interest, providing Notices beyond the above list could enhance consultation. Applicants may also wish to distribute copies of notices to other relevant agencies (such as the Ministry of Natural Resources (MNR), local conservation authorities, federal government agencies, etc.). In particular, proponents of Class 3, 4 and 5 wind facilities are encouraged to contact the following federal departments regarding their proposed facility (contact information is provided in Appendix 2):

- Canadian Broadcasting Corporation (CBC): Requires applicants to comply with Radio Advisory Board of Canada (RABC) and Canadian Wind Energy Association (CanWEA) guidelines and to notify CBC of any proposed wind facilities;
- Royal Canadian Mounted Police (RCMP): Requires all applicants with potential wind facilities to contact the RCMP Mobile Communications Services;
- Environment Canada: Applicants with wind facility proposals must contact Environment Canada (EC) if the proposed facility has the potential to impact migratory birds in any way. Applicants with proposed wind facilities must contact EC, to access potential interference with weather radar signals and their ability to detect severe weather conditions. In addition, EC holds information that may be of use to the province and applicants in assessing the existing environment and/or its effects on the facility, including climatological records, weather forecasts, ice cover and water level and flow data. Contact EC, Environmental Assessment Section.

Applicants of proposed wind facilities must contact EC, to assess potential interference with weather radar signals and their ability to detect severe weather conditions. Contact EC, National Inquiry Response Team.

In addition, EC holds information that may be of use to the province and applicants in assessing the existing environment and/or its effects on the facility, including climatological records, weather forecasts, ice cover and water level and flow data.

Notices are critical to ensure meaningful participation of interested and/or potentially affected parties. In addition to giving notice, applicants may use different means such as flyers, posters, internet, email and radio or TV announcements to communicate information about and solicit feedback on the project.

It may be possible to coordinate public notice requirements under the REA regulation with the notice requirements under other legislation. If applicants wish to provide coordinated notices for their renewable energy projects, applicants should consult the MOE before they post coordinated notices.

4. Public Meetings

Public meetings are a critical component of consultation because they provide a forum for an applicant to discuss the project directly with the community and hear about any concerns first hand. Given that renewable energy projects will become part of a community for 20 years or longer, fostering good relations with the community early in the process will promote long-term success. Community consultation and effective relationship building can help to make projects beneficial and acceptable to all involved.

At a minimum, for most facility types O. Reg. 359/09 (subsection 16 (1)) requires that applicants hold two public meetings at the following locations:

- In each local municipality in which the project location is situated; or
- If the project location is in unorganized territory:
    - Within 25 kms of the project location; or
    - If there is no appropriate place to hold a public meeting within 25 km of the project location, than the local municipality that is closest to the project location.

Public meetings are not required for the following facility types:

- Class 2 wind facilities;
- Class 1 or 2 anaerobic digestion facilities;
- Class 1 thermal treatment facilities, if the generating unit of the facility is located at a farm operation; or
- Class 2 thermal treatment facilities.

Applicants should consider how the logistical aspects of a public meeting can be planned to ensure everyone who wants to attend the meeting will have an opportunity to be presented with project information as well as an opportunity to raise concerns or otherwise comment on the project. This can include presentations, open house, displays, or other means to provide information and solicit feedback. Consideration should be given to making materials available in alternative/accessible formats. The venue selection should also ensure an effective exchange can occur. The venue should be easily accessible and located close to the project location. The timing of the meeting should be planned well in advance to allow members of the community to attend (e.g. in the evening). Where venue logistics may pose challenges for effectively engaging all interested members of the public, multiple meetings could be proposed. Since the applicant must submit a record of comments received at all public meetings in the Consultation Report (see Part 2 of this chapter for further guidance on this report), the applicant should plan meeting logistics to ensure that comments can be recorded.

Applicants should expect the public to have questions about the project and should be prepared to provide answers at all public meetings and in response to questions submitted in writing. Where the information is not readily available, the applicant should commit to provide a response in the future and follow through on that commitment. Being responsive to a community's need for information is a key part of being a good neighbour. More information on tips for being a good neighbour can be found in Chapter 11 of this guide.

4.1. First Public Meeting

The first public meeting is an early opportunity for the applicant to provide information about the project and to receive information from those attending to ensure all local interests and concerns will be considered in planning the project. This meeting should provide an opportunity for the public to ask questions about the project and for the applicant to respond and to listen to the community. At this meeting applicants should convey to the public that project plans will continue to evolve based on comments received.

Applicants should schedule this meeting at a point in the project planning that will maximize its benefit in helping stakeholders understand negative

environmental effects that will or are likely to occur. For instance, the meeting should only be held when the applicant has a clear project concept so that the specifics of the project can be discussed at the meeting. The meeting should also be held at a time that is early enough in project planning so that information gained at the meeting (for instance the identification of a previously unidentified cultural heritage resource or noise receptor in the vicinity of the project location) can be incorporated into project planning. It is likely that information raised at the first public meeting will influence the scope of studies and reports for the application.

While the general timing of the first public meeting should be determined by the applicant, this meeting can only be conducted if notice of the meeting (and of the project itself) has been provided at least 30 days in advance to all of the organizations and people noted above. An additional requirement is that the applicant makes available a draft PDR for review, also at least 30 days in advance of the meeting. In accordance with subsection 16 (2) of O. Reg. 359/09, the draft PDR must be made available in the following ways:

1. By posting the draft report on the applicant's website, if the applicant has a website.
2. Making paper copies of the draft report publicly available (e.g. by placing them at municipal offices or a public library) in each municipality or unorganized territory in which the project is located.
3. Making paper copies available to each Aboriginal community on the Aboriginal Consultation List or any additional communities identified by the applicant (see section 2.2. of this chapter for further explanation).

Providing the draft PDR in advance allows people who wish to attend the meeting to consider the project proposal prior to the meeting.

When conducting the first public meeting, the draft PDR must be made available for review by attendees, as per subsection 16 (4) of O. Reg. 359/09. This draft report, and specifically the description of negative environmental effects of the project that will or are likely to occur, should be the focus of the first meeting. However, applicants should also provide information about their ongoing pre-application activities, such as studies and investigations planned, as well as proposed application timing.

4.2. Additional Public Meetings

Applicants are recommended to hold additional public meetings beyond the minimum two required by O. Reg. 359/09, if such meetings would enhance public consultation. Conducting a comprehensive consultation program will give a greater opportunity for the applicant to learn about local concerns so that they may be addressed by the applicant, if appropriate. This will also allow the applicant more opportunity to accurately communicate the details of proposal to the community, including how the project proposal has evolved in response to information brought forward by the community at earlier meetings, if applicable.

Depending on the local interest in the project, applicants can also consider going beyond the minimum consultation requirements by establishing a representative group or "Public Liaison Committee" for the project. Having a group that represents local residents, the local municipality and other interested groups early demonstrates a commitment to long-term positive relations and encourages local participation in the development process. This and other ideas for going beyond the minimum requirements to be a good neighbour are discussed further in Chapter 11 of this guide.

4.3. Final Public Meeting

The final public meeting should take place when the applicant has completed all the necessary studies and drafted all reports needed to submit a complete REA application. This final meeting is an opportunity for the public to review the detailed project proposal and provide comment on all the studies and investigations that have been conducted in respect of the project.

To enable this final review, subsection 16 (5) of O. Reg. 359/09 requires applicants to make available drafts of all the reports and technical studies that will be submitted as part of their REA application (other than the consultation report and written confirmation and comments from the Ministry of Tourism, Culture and Sport (MTCS) and MNR, obtained in respect of cultural and natural heritage assessments) a minimum of 60 days in advance of the final public meeting. The locations where the draft documents must be made available are the same as the locations for the draft PDR in advance of the first public meeting:

1. By posting the draft report on the applicant's website, if the applicant has a website.

2. Making paper copies of the draft report publicly available (e.g. by placing them at municipal offices or a public library) in each municipality or unorganized territory in which the project is located.
3. Making paper copies available to each Aboriginal community on the Aboriginal Consultation List or any additional communities identified by the applicant (see section 2.2 above for further explanation).

Guidance related to venue logistics provided in section 4.1 above should be considered for the final public meeting. Given the volume of project information to be discussed at the final public meeting, applicants should consider how the meeting can be planned to facilitate a thorough discussion. For example, to the extent possible, applicants should plan to have appropriate personnel present at the meeting to be able to answer questions about all project documents.

5. Consultation with Municipalities and other Local Authorities

Consultation with municipalities and other local authorities is a critical element of the REA application process. Most renewable energy projects will require municipal services/infrastructure for certain project activities and many could result in negative environmental effects that could adversely affect municipal infrastructure or otherwise be of interest to the municipality (e.g. impacts on traffic flow during construction). Municipalities, including their elected council, are also an important window into the local community with significant experience in working with the local public.

Given the importance of municipal consultation, there are specific requirements for municipal consultation for renewable energy projects in O. Reg. 359/09. With the exception of Class 2 wind facilities, all REA applicants must meet consultation requirements that include notification of the project, the provision of draft project documents and the provision of a municipal consultation form, all in accordance with minimum regulated timelines. The specifics of these requirements are described in the sections that follow.

It should be noted that, as with public and Aboriginal consultation, applicants should consider how municipal consultation can be enhanced by going beyond the minimum requirements under O. Reg. 359/09. While the REA regulation has provided for a formal exchange of municipal comments through the municipal consultation form, applicants are recommended to meet with all municipalities (including both municipal staff and council members) as well as other local authorities (e.g. local roads board) to discuss the project. Meetings should happen at an early stage in project planning to foster a constructive working relationship. Since municipal permits, such as building permits, are often required outside of the REA process, a meeting can also be an opportunity to discuss additional requirements and the optimization of permit timelines.

5.1. Provision of draft Documents

As per section 18 of O. Reg. 359/09, REA applicants must provide draft documents to the clerk of all local and upper tier municipalities as well as to the secretary-treasurer of all local roads boards and the secretary of all local service boards where the project is located according to regulated timelines. For facilities that require public meetings, these timelines are:

At Least 30 Days in Advance of the First Public Meeting

- A draft of the PDR must be provided; and
- A municipal consultation form must be provided.

At Least 90 Days in Advance of the Final Public Meeting

- Drafts of all REA documents required as part of a complete application must be provided except:
    - The Consultation Report; and
    - Written confirmation and comments from MTCS and MNR in respect of cultural and natural heritage assessment requirements.

For facilities that require municipal consultation but do not require public meetings (Class 1 and Class 2 anaerobic digestion facilities, Class 1 thermal treatment facilities if located on a farm, Class 2 thermal treatment facilities), the municipal consultation form and all draft project documents must be provided to each municipality, local roads board and local service board at least 30 days in advance of submitting an REA application.

5.2. Municipal Consultation Form

To provide municipalities and local authorities with an opportunity to provide written comments that can be reviewed by the applicant and the MOE (upon submission of a complete REA application), O. Reg. 359/09 specifies that a municipal consultation form must be provided to all local municipalities and road/service boards by the applicant. The structured municipal consultation form is a two-part form. Part A is completed by the applicant to highlight elements of the project that have implications for municipal infrastructure and servicing. Part B includes fields for the municipality or local authority to comment on how the project may impact specific municipal services and infrastructure. The final completed form is then sent to the applicant so that the concerns raised can be reviewed and addressed as appropriate. This form should be submitted as part of an REA application.

The municipal consultation form is contained in Appendix 4 of this guide, but it is also available on the MOE website as Publication # 7450e. The specific information related to servicing and infrastructure that the form explores includes:

- Proposed road access during construction and after commissioning;
- Location and types of municipal service connections that may be required;
- Traffic management plans during construction and, if necessary, operation;
- Plans for the rehabilitation of areas disturbed and/or municipal infrastructure damaged during construction;
- Emergency management procedures/safety protocols;
- Proposed site landscaping, if applicable;
- Easements or restrictive covenants on the property;
- Location of fire hydrants and connections to drainage, water works and sanitary sewers and water mains;
- Location of buried kiosks and above-grade utility vaults;
- Location of existing and proposed gas and electricity lines and connections;
- Building Code permits and licences;
- Identification of any significant natural features and water bodies;
- Identification of any protected properties, archaeological or heritage resources; and
- Identification of any municipal aerodromes/airports.

Applicants are also expected to use the Part A of the form to direct municipalities to the draft document(s) and page number(s) where relevant information regarding each of the items above can be found.

When submitted as part of a complete REA application, the MOE will carefully consider all comments raised by the municipality. Applicants should document in their Consultation Report how the comments were considered and note any project changes arising from municipal comments. When reviewing an application, the Consultation Report will also be reviewed to determine the extent to which the application resolves any issues raised on the municipal consultation form. If an REA is granted for the project, the ministry can attach conditions to the approval that require the applicant to carry out activities to further address a municipal issue, if needed. It is in the applicant's interest to conduct comprehensive consultation, such as through additional meetings, with municipalities and other local authorities to determine how municipal concerns can be addressed through changes to the project proposal.

6. Issuing a Draft Site Plan for Class 3 and 4 Wind Facilities

Applicants proposing a Class 3 and 4 wind facility should note that O. Reg. 359/09 contains provisions for the issuance of Draft Site Plan(s) in advance of submitting an application. By issuing Draft Site Plan(s), the locations of noise receptors can be fixed in order to complete project planning with a defined picture of the siting constraints. More information on the Draft Site Plan and the requirements for issuing notice(s) are given in Chapter 3.

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7. Consultation through the Environmental Registry

Upon receiving a complete application for an REA, the MOE will publish a proposal notice in respect of the application on the Environmental Registry (www.ebr.gov.on.ca). This proposal notice allows the public to submit comments directly to the ministry during a minimum 30 day comment period. In some cases, the comment period may be extended beyond the 30 day minimum. At this time, applicants are also required, under sections 15.1 and 15.2 of O. Reg. 359/09, to publish all REA documentation to their website (if one exists) and post notices in local newspapers to inform the public of the comment period.

It should be noted that there are limited exceptions where section 22 of the *Environmental Bill of Rights, 1993* does not apply to a project and a minimum 30 day comment period is not required for the proposal. However, in these cases the MOE's policy will be to post an information notice of the proposal to the Environmental Registry.

More information on the requirements related to this review-phase consultation is provided in section 10.3.1 of Chapter 1.

PART 2: Guidance for Preparing the Consultation Report

1. Purpose of the Consultation Report

The Consultation Report is required as part of a complete submission for all renewable energy projects that require an REA with the exception of Class 2 wind facilities. The purpose of the Consultation Report is to achieve two key objectives:

1. To document how consultation activities were undertaken to determine if an application is complete with respect to adherence to the regulated minimum consultation requirements of O. Reg. 359/09.
2. To provide a record of the comments and information received by the applicant through consultation and to document how comments were considered. This includes creating a record of whether and how the project was modified as a result of comments received.

To achieve these two objectives, the Consultation Report will include both written summary information and appended documentation such as copies of notices, written comments received and other communications as described in the sections below.

Since consultation may continue right up to a point where the applicant believes they are ready to submit an application, finalizing the Consultation Report will be one of the last steps in the pre-application process. A draft of the Consultation Report is not required to be made available in advance of the public meetings since those meetings will result in modifications to the Consultation Report.

As part of their ongoing engagement with Aboriginal communities, applicants should share a paper copy of the final Consultation Report with the communities on the Aboriginal Consultation List prior to, or at the time of, submitting an REA application to the ministry.

Applicants are advised to keep in mind that consultation conducted to satisfy sections 14 - 18 of the REA regulation will be used by the MNR to inform decisions regarding the disposition of Crown land, and MNR permits or approvals on Crown and private land. To avoid duplication and provide greater clarity to the community, it is recommended that applicants consult on the entire project. By thinking of the project as a whole, it will allow applicants to consult for the purposes of all necessary permits and approvals.

To ensure that consultation is undertaken in a manner which supports MNR decision-making under various statutes (e.g. Public Lands Act), draft reports and information presented at public meetings must provide sufficient detail for interested parties to achieve a full understanding of activities proposed on Crown land, and activities which require provision of information under the MNR's Approval and Permitting Requirements Document (APRD). Applicants should follow the direction outlined in this Guide to determine the level of specificity that should be provided when describing these activities for the purposes of consultation (e.g. activity purpose, proposed location, intensity, duration, etc.).

For further information on the consultation requirements which inform MNR decision-making on renewable energy projects, applicants can consult the APRD (http://www.mnr.gov.on.ca/stdprodconsume/groups/lr/@mnr/@renewable/documents/document/277097.pdf).

Ensuring Transparency: Reporting On How Comments Were Considered

The Consultation Report is a critical element in ensuring transparency and accountability in the REA process. When a complete application is accepted for review by the MOE, the applicant will be required to post a digital copy of the application to its website, if one exists, in accordance with section 15.1 of O. Reg. 359/09. This will allow the public and other stakeholders to review how consultation was documented in the Consultation Report.

With this function in mind, applicants should ensure that the discussion of how the applicant considered public and stakeholder comments is clear, complete, and sufficiently detailed to achieve full transparency. In addition to describing this in the Consultation Report, applicants are also recommended to communicate directly with members of the public who raised concerns to inform them of how their concerns were considered prior to submitting the REA application.

2. Report Contents

As provided in Table 1 of O. Reg. 359/09, the Consultation Report must include the following required content:

- A summary of communication with any members of the public, Aboriginal communities, municipalities, local roads boards and local services boards regarding the project.
- Evidence that the information required to be distributed to Aboriginal communities under the minimum requirements for Aboriginal consultation was distributed.
- Any information provided by an Aboriginal community:
    - That in its view should be considered in preparing the project documentation; and
    - In respect of any Aboriginal or treaty rights that may be adversely impacted by the project, along with any measures for mitigating those impacts.
- Evidence that a municipal consultation form was distributed to all municipalities, local roads boards and local service boards in which the project was located according to the minimum regulated timelines.
- Any municipal consultation form submitted to the applicant if any part of it has been completed by a municipality, local roads board or local services board.

- A description of whether and how:
    - Comments from members of the public, Aboriginal communities, municipalities, local roads boards and local services boards were considered by the person who is engaging in the project;
    - The draft REA documents that were made available prior to the final public meeting were amended after the final public meeting was held; and
    - The project proposal was altered in response to comments received from members of the public, Aboriginal communities, municipalities, local roads boards and local services boards.

The following sections describe how the required content can be presented in the Consultation Report.

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3. Summary of Consultation Activities and Timing

It is recommended that the Consultation Report include a summary list or table of all the consultation activities (e.g. notices issued, meetings held, documents made available) undertaken that indicates the timing of each activity. This summary, supported by the evidence in other sections of the report, will allow the ministry to review how the application meets all regulated timing of consultation activities. Such a summary will also allow the public and other interested stakeholders to quickly review the consultation program undertaken in respect of the project when the Consultation Report is made available at the time of submitting a complete application.

- The section of the Consultation Report that discusses Aboriginal consultation should also contain the following information:
    - The rationale behind any proposed mitigation option(s) to address potential impacts on Aboriginal or treaty rights or potential environmental effects;
    - The rationale behind any proposed mitigation option(s) to address potential environmental effects;
    - The degree to which the Aboriginal communities were involved in developing any mitigation options; and
    - The rationale why any proposal from an Aboriginal community for mitigation was or was not accepted by the applicant.

4. Reporting on Aboriginal Consultation

The Consultation Report must document activities undertaken to meet all requirements for Aboriginal consultation under O. Reg. 359/09. As noted in Part 1, the MOE has developed specific guidance on Aboriginal consultation that will provide further direction on how to report on consultation activities. Applicants are advised to familiarize themselves with the guidance contained in the *Aboriginal Consultation Guide for preparing a Renewable Energy Approval (REA) Application* regarding their consultation reports on Aboriginal consultation. This document can be found on the MOE website.

As a brief overview of the minimum requirements for reporting on Aboriginal consultation, applicants should include the following in their consultation report:

- Evidence of all correspondence sent to Aboriginal communities to notify them of the project, to provide the PDR and summaries of other key reports, and to request information about how the project may impact an Aboriginal or treaty right.
    - Evidence should include copies of the correspondence itself.
    - Evidence should indicate the date that the correspondence was sent so that the Ministry can ensure regulated minimum timelines were met.
- A summary of comments received by the applicant as a result of the correspondence with each community.
    - This could include appending to the report meeting notes from meetings held with communities, copies of notices, written comments received or any other communications or correspondence.
- A summary of discussions of the aspects of the project proposal that were changed in response to comments received from Aboriginal communities, if any.
    - This discussion should also reference any changes to draft project documents that were made as a result of a change to the project proposal.
- The section of the Consultation Report that discusses Aboriginal consultation should also contain the following information:
    - The rationale behind any proposed mitigation option(s) to address potential impacts on Aboriginal or treaty rights or potential environmental effects;

- The rationale behind any proposed mitigation option(s) to address potential environmental effects;
- The degree to which the Aboriginal communities were involved in developing any mitigation options; and
- The rationale why any proposal from an Aboriginal community for mitigation was or was not accepted by the applicant.

5. Reporting on Public Consultation

The Consultation Report must document activities undertaken to meet all requirements for public consultation under O. Reg. 359/09. Requirements for public consultation are described in Part 1 of this chapter. When reporting on public consultation in the Consultation Report, key information that should be provided includes the following:

Evidence of Public Notice and Public Meetings

- Evidence that all public notices were published, posted or given to persons in the manner required by subsection 15 (6) of O. Reg. 359/09, including a description of where, when, how and, if appropriate, to who those notices were published, posted or given.
  - Evidence should include copies of the notices themselves.
- A description of all public meetings held in respect of the project including the date they were held, the location and timing of the meeting.
  - A description of the meeting format (e.g. what and how information about the project was presented, how comments were solicited and questions answered) as well as the number of people who attended should also be included in the Consultation Report.
  - Applicants should consider including any materials presented at public meetings, such as presentations, if appropriate.

Evidence of Documents Made Available to the Public

- To demonstrate that project documents were made available to the public in accordance with the requirements of O. Reg. 359/09, evidence of document dissemination must be included in the Consultation Report.
  - In most cases, this can be achieved by including a copy of the notice of public meetings issued. These notices should indicate the locations that documents were made available.

Summary of All Comments Received

- All comments received by the applicant at the public meetings (verbally and in writing) should be summarized.
  - The summary should capture all issues raised.
  - Written submissions from the public should be included as an appendix.
- All other comments received outside of consultation meetings should also be included or summarized. This could include written comments sent to the applicant by members of the public or through other interactions outside of the formal public meetings.

Protecting Privacy and Personal Information

Applicants should consider their obligations under the federal Personal Information Protection and Electronic Documents Act (PIPEDA) to protect personal information that may be obtained through consultation activities. For instance, an applicant may choose to modify the Consultation Report so that it does not include personal information (e.g. names, addresses or contact details on comments received) to allow for publication of digital reports to the applicant's website in accordance with section 15.1 of O. Reg. 359/09. Applicants should review the requirements of PIPEDA and seek legal advice, if required.

- **For more information about PIPEDA, visit the Office of the Privacy Commissioner website at http://www.priv.gc.ca/index_e.cfm.**

Applicants should also note that copies of a complete REA application and any correspondence submitted to the MOE form part of a file that will be maintained by the ministry. This file is subject to the Freedom of Information and Protection of Privacy Act (FIPPA) and information about an application may be accessible to the public in accordance with FIPPA.

- **For more information about FIPPA, visit the Access and Privacy Office website at www.accessandprivacy.gov.on.ca.**

Description of How Comments were Considered

- After summarizing all comments, the applicant must describe how all comments (or principal issues covered by multiple comments) were considered.
- If a comment or issue was not addressed through a change to the project proposal (including facility construction, operation, monitoring, or decommissioning activities), rationale should be provided as to why a change was not warranted.
- If a comment or issue was addressed through a change to the project proposal (including facility construction, operation, monitoring, or decommissioning activities), the change must be noted.
    - Where report documents were modified as a result of changes to the project proposal, the changes should be noted and referenced in the Consultation Report.
    - Rationale should also be included to describe how the change to the project proposal will address the issue raised by in the comment(s) received.

5.1 Reporting on Consultation with Other Stakeholders

The Consultation Report should also provide a record of comments and correspondence received in relation to consultation with other stakeholder organizations such as:

- Other ministries of the provincial government (MNR, MTCS, MTO, OMAFRA, others as applicable)
- Other provincial agencies such as the Niagara Escarpment Commission and local conservation authorities
- The Federal government and/or its agencies (Environment Canada, others as applicable)
- Other agencies, boards or organizations with a permitting or certification role at the provincial or national level, as applicable (for instance, those with contact information listed in Appendix 2)
- Other organizations interested in the project such as advocacy or community groups

In addition to the record of comments, applicants are strongly recommended to include a copy of any letters/correspondence received from the stakeholders mentioned above. These stakeholders may provide information that may impact conditions on a project. As a best practice, incorporating the feedback received early in the project planning may mitigate the need for changes later on.

By documenting consultation with other stakeholders, the applicant can refer to such consultation in respect of how negative environmental effects that will or are likely to occur described in the PDR were evaluated. For instance, the applicant may identify that there are negative environmental effects that will or are likely to occur related to the proximity of the project to lands adjacent to a river which are affected by flooding hazards (e.g. for an anaerobic digestion facility, potential for biomass storage areas to contaminate floodwaters in an emergency event). In this case, the

applicant should engage in consultation with the local conservation authority or MNR early in the process to determine if project siting is appropriate to minimize risks related to flooding. A record of this consultation, for instance including correspondence from MNR or the conservation authority describing the risks associated with the project location, could be referred to when the applicant makes conclusions regarding the significance of these potential effects.

6. Reporting on Municipal Consultation

The Consultation Report must document activities undertaken to meet all requirements for municipal consultation under O. Reg. 359/09. Requirements for municipal consultation, including the use of the municipal consultation form are described in section 5 in part 1 of this chapter. When reporting on municipal consultation in the Consultation Report, key information that should be provided includes the following:

Municipal Consultation Forms

A municipal consultation form must be provided to each municipality, local service board and local roads board in which the project is located according to the regulated timelines in O. Reg. 359/09 (i.e. at least 30 days in advance of either the first public meeting or, if public meetings are not required, at least 30 days in advance of an application being made to the Director). The regulated timelines allow municipalities to have time to complete their part of the municipal consultation form to bring forward issues related to municipal servicing and infrastructure that the applicant must consider.

To demonstrate to the MOE that the municipal consultation form was distributed to municipalities and local authorities in accordance with O. Reg. 359/09, the applicant should include evidence of form distribution, including the date of distribution. This can be achieved by including copies of correspondence sent to/received from the municipality in respect of the form.

Applicants who receive a municipal consultation form back from a municipality or local authority must include the form, as received, in the Consultation Report. This includes any correspondence or other reports attached to the form to elaborate on information provided in the form.

Other Municipal Consultation Activities

While the municipal consultation form is the principal formal request for comments from municipalities and local authorities, applicants may conduct additional municipal consultation activities. More detailed discussion of the resolution of municipal issues may occur in correspondence outside of the municipal consultation form or through meetings with municipal staff or members of municipal council. If the inclusion or description of additional correspondence or meetings may assist the ministry in understanding how municipal concerns were addressed during project planning, these should be included in the Consultation Report.

Description of How Comments were Considered

The applicant must describe how all comments received through the municipal consultation form or through additional municipal consultation activities were considered.

- If a comment or issue was not addressed through a change to the project proposal (including facility construction, operation, monitoring, or decommissioning activities), rationale should be provided as to why a change was not warranted.
    - Rationale can include correspondence or records of discussions with a municipality or local authority that support the applicant's decision to not change the proposal.

- If a comment or issue was addressed through a change to the project proposal (including facility construction, operation, monitoring, or decommissioning activities), the change must be noted.
    - Where report documents were modified as a result of changes to the project proposal, the changes should be noted and referenced in the Consultation Report.
    - Rationale should also be included to describe how the change to the project proposal will address the issue raised by in the comment(s) received.
    - Rationale can include correspondence of records of discussions with a municipality or local authority that supports the applicant's chosen approach to address the issue.

Chapter 3

Required setbacks for wind turbines

1. Purpose

The purpose of this chapter is to clarify the setback prohibitions under the Renewable Energy Approval (REA) Regulation (O. Reg. 359/09) as they apply to locating wind turbines near noise receptors, property lines, and road or railway right of ways. Setbacks are specified minimum horizontal separation distances between the centre of the base of a turbine and a noise receptor, property line, or road or railway right of way of interest. O. Reg. 359/09 specifies additional setback requirements for renewable energy projects related to natural features and water bodies and these are discussed in Chapter 1.

While O. Reg. 359/09 provides the specific requirements with regard to setback prohibitions, such as their applicability and minimum distances, there are situations where the application of one setback (for example, the property line setback) could have the effect of increasing a different setback (for example, the road or railway right of ways setback), resulting in a turbine having to be situated at a greater distance.

1.1. Measuring Setback Distances

All setback distances refer to a length between two defined points, for instance the centre of a building (for a noise receptor) and the centre of the base of a turbine. In some circumstances the two defined points may not be at the same level with respect to elevation from the ground. An example would be a turbine on a hill where the noise receptor is at a lower elevation. For the purpose of complying with the setback requirements of O. Reg. 359/09, in all cases setback distances should be measured as horizontal distances at ground level. The use of Universal Transverse Mercator (UTM) coordinates for demonstrating the locations of noise receptors and turbines when preparing REA reports is recommended to assist evaluation of the horizontal distance.

2. Noise-Based Setbacks

Setbacks for noise have been established in regulation for all land-based wind facilities generating ≥50kW and using one or more turbines with a sound power level ≥102 dBA (subsection 54 (1) of O. Reg. 359/09). Facilities that have a lower name plate capacity or use turbines with lower sound power levels are not subject to minimum noise setbacks, though they may still require an REA and may be subject to the property line and road or railway setbacks. Greater detail on the information required for describing negative environmental effects that will or are likely to occur from noise for small wind projects (Class 2 and 3) is given in section 5.5 of Chapter 4 which provides guidance on preparing the Project Description Report (PDR).

2.1. Minimum Setbacks

All wind turbines that meet the criteria of subsection 54 (1) of O. Reg. 359/09 as described above, must be located at least 550 meters (m) from the nearest noise receptor. The only exception to this is if a turbine is located near a noise receptor where the ambient noise from road traffic is consistently greater than 40 dBA. This exception is discussed in section 2.4 of this guide.

The minimum setback of 550 m was developed by modeling propagation of turbine noise towards a receptor. Wind conditions, and other factors affecting sound propagation were selected to represent a worst-case scenario to give a conservative estimate of setbacks. Further detail on the rationale and modeling methodology used to arrive at noise setbacks is provided in the 2009 Ministry of Environment (MOE) publication "*Development of Noise Setbacks for Wind Farms*" (Publication #7263e).

2.2. Definition of Noise Receptors

Noise receptors are defined in O. Reg. 359/09 as "the centre of a building or structure that contains one or more dwellings" or "buildings used for an institutional purpose including an educational facility, day nursery, health care facility, community centre or place of worship". A dwelling is further defined in O. Reg. 359/09 to mean "one or more habitable rooms used or capable of being used as a permanent or seasonal residence by one or more persons and usually containing cooking, eating, living, sleeping and sanitary facilities". Examples of buildings that the MOE would consider dwellings include residences, hotels/motels, and nursing/retirement homes. Public or privately owned campsites or campgrounds that provide overnight accommodation are also included in the definition of noise receptors.

In addition to existing buildings, those that are planned for construction and have been issued a building permit under the Building Code Act, 1992 or received site plan approval under the Planning Act, are also considered to be noise receptors. Section 2.5 below provides details around the timing considerations for including noise receptors, including noise receptors resulting from the issuance of building permits.

Since there are a range of uses of buildings that may or may not be interpreted to fit the definition of a dwelling, further guidance on this interpretation is provided in the following paragraphs.

The goal of the 550 m minimum setback between turbines and noise receptors is to limit noise at buildings where permanent or seasonal residency is possible and likely to occur. Rudimentary buildings or structures built to allow temporary or intermittent uses such as short term use for hunting are not considered dwellings. The criteria that assist in making this determination include:

- Presence of equipment for supplying potable water through connection to a drinking water supply system (i.e. municipal supply) or the establishment of a functioning well or surface water intake/treatment for human consumption;
- Presence of equipment used to manage sanitary sewage such as a connection to municipal sewer or septic system;
- Connection to the electrical grid or the presence of equipment for lighting and heating capable of providing for long term overnight accommodation; and
- Pattern of use (frequency and duration of habitation).

It is important to note that the criteria above does not automatically rule out the consideration of rural dwellings or cottages that are not serviced by municipal infrastructure such as water and sewage or even those not connected to the electricity grid as noise receptors.

All noise receptors should be identified by the proponent through reasonable inquiry prior to conducting a wind turbine noise assessment, preparing a site plan as part of a Design and Operations Report or providing notice of the issuance of a Draft Site Plan (note: more detail on Draft Site Plans and timing implications for wind projects is provided in section 2.5). If there is doubt that a particular building is a noise receptor, the applicant should make reasonable inquiry into the nature of the building and its use. Information about the criteria described above should be included as part of the Design and Operations Report and Noise Assessment. This information should justify any determination that the building is not a noise receptor.

For calculation of setback distances, the centre of the building is used to locate the position of the noise receptor.

2.2.1. Participating vs. Non-Participating Noise Receptors

Setback distances do not apply to noise receptors (so-called "participating" noise receptors) on a parcel of land where any part of a renewable energy generation facility will be located once the facility is installed, constructed or expanded in accordance with the REA.

It must be emphasized that for setback distances not to apply, all or part of the renewable energy generation facility (e.g. turbine, transmission line) must be constructed on the parcel of land. Thus, this does not apply to lease options that do not result in the construction of facility components or other agreements to waive the 550 m setback distance in

consideration of financial compensation or other arrangements. Further, it should be noted that a temporary structure is not considered a participating noise receptor.

Further to this, while noise receptors on such land do not trigger the minimum setback distances in O. Reg. 359/09, both land owners and wind energy developers should consider potential noise impacts when entering into agreements to site turbines. The MOE has based the regulatory approach to noise on a 40 dBA outdoor night time noise limit. This limit should be considered when discussing turbine placement on land where participating noise receptors exist.

Land owners and developers are responsible for negotiating the terms of agreements, which can include specified setback distances from residences or property lines, and all parties should do their own due diligence regarding the content of such agreements.

Figure 7 is a conceptual diagram demonstrating the applicability of noise setbacks, as well as setbacks relating to property lines and roadways as discussed in subsequent chapters.

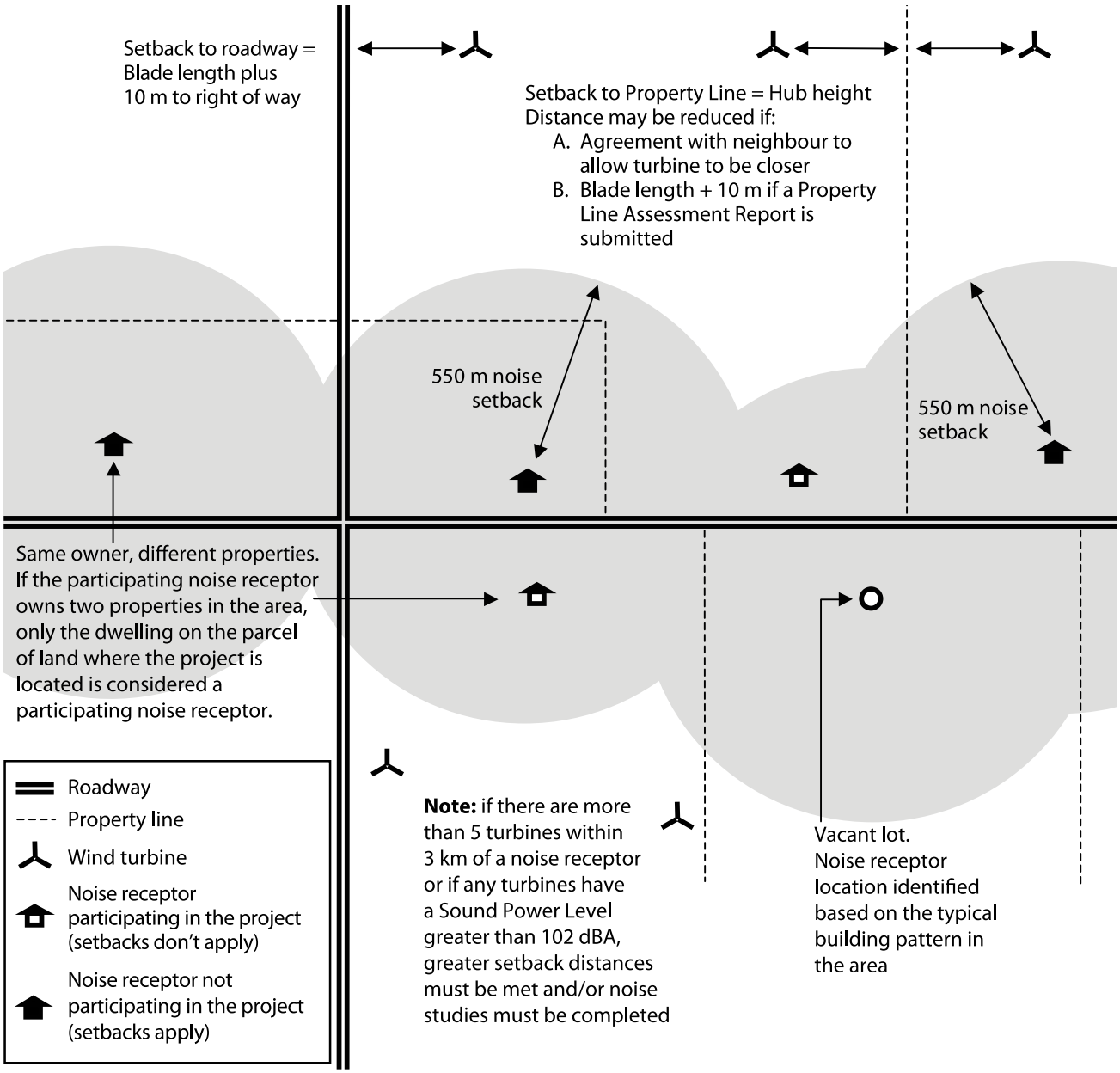

Figure 8. Diagram of various setback requirements for wind turbines in Class 4 facilities

2.2.2. Vacant Lots

REA setbacks also protect future use of vacant land where that land is zoned to allow construction of potential noise receptors (e.g. a future residence). For the purposes of defining the location of a noise receptor on vacant land the applicant must specify the position on the lot where a building would reasonably be expected to be located, having regard to the existing zoning by-laws and the typical building pattern of lots in the area. This approach is generally consistent with the MOE's "*Noise Guidelines for Wind Farms*" (October 2008, Publication #4709e).

Where a future noise receptor is expected to be institutional in nature (e.g. a hospital or a school), the presumed locations of vacant lot noise receptors should be discussed with the MOE's Environmental Approvals Access and Service Integration Branch at an early stage of project planning.

The determination of the location of the noise receptor on the vacant lot for the purposes of O. Reg. 359/09 should be disclosed to the public as part of the draft Design and Operations Report that is made available to the public at least 60 days prior to the final public meeting.

In keeping with the intent to protect future use of land for the construction of a noise receptor, some parcels of vacant land may be located such that they are inaccessible and thus not likely to permit a noise receptor to be located there. Applicants do not need to define a noise receptor location on land that is inaccessible.

Under O. Reg. 359/09, an inaccessible vacant lot is defined as a vacant lot on private land that cannot be accessed by the owner now or in the future through the use of a road by a motor vehicle (as that is defined in the Highway Traffic Act) or that cannot be accessed by a watercraft.

Criteria that indicate inaccessibility of land include:

- No roads, suitable for the passage of a motor vehicle, are adjacent to any property line of the lot;
- The lot does not border or contain access to a navigable waterway; and/or
- The land owner does not hold any legal rights (through an easement for example) to access the lot through a road suitable for the passage of a motor vehicle.

2.2.3. Noise Receptors on Crown Land

In general, noise receptors shall be considered similarly whether they occur as permitted uses on Crown land or are located on privately owned land.

2.3 Multiple/Louder Turbines

Depending on the project specifics, a noise receptor may face combined impacts from the siting of multiple specified turbines (those specified according to the criteria of subsection 54 (1) of O. Reg. 359/09). Increased setback distances have been calculated to reflect this combined impact based on the number of turbines within a 3 km radius of a noise receptor. Greater numbers of turbines within the 3 km radius result in greater required setback distances from the nearest turbine.

For the purpose of calculating the number of turbines within the 3 km radius, applicants must consider existing and proposed turbines with a sound power level greater than or equal to 102 dBA. This includes:

- Turbines proposed by the applicant as part of the wind facility.
- Existing turbines from other wind facilities that fall within 3 km of the noise receptor.
- Turbines proposed to be constructed in other wind facilities which have either been approved with an REA, Certificate of Approval, or Environmental Compliance Approval (ECA) issued by the MOE.
- Turbines that are being planned to be constructed that meet the following conditions:
    - Turbines in other wind facilities where a notice of proposal for an REA has been posted to the Environmental Registry (www.ebr.gov.on.ca);
    - Turbines that are described in an Environmental Screening Report or an Environmental Review Report made available under the Environmental Screening Process pursuant to O. Reg. 116/01 under the Environmental Assessment Act;
    - Turbines that are described in a Draft Site Plan issued in accordance with section 54.1 of O. Reg. 359/09. (See section 2.5 for more detail on the issuance of a Draft Site Plan); and/or
    - Turbines that were identified before January 1, 2011 in information made available to the public by publishing the locations of the wind turbines in a newspaper or on a person's website, if the person has a website, or by disclosing the

locations at a public meeting required to be held under section 16 of O. Reg. 359/09.

If other projects are being proposed in proximity to an applicant's proposed project location, consultation with all neighbouring developers is strongly recommended. Working together to manage potential turbine layout changes may be advantageous for all parties in meeting the setback requirements at the time of application.

Setbacks have also been adjusted to account for differences in the sound power level emitted from various turbine models available on the market. Sound power level is a specification of turbine design determined by the manufacturer through calculation in accordance with standard CAN/CSA-C61400-11-07, "*Wind Turbine Generator Systems – Part 11: Acoustic Noise Measurement Technique*". Specifications for sound power level used for determining setbacks correspond to the sound emitted while operating at 95% of the name plate capacity rounded to the nearest whole number. If different turbine types are used in a wind energy facility the sound power level of the loudest turbine is used for determining noise setback distances applied to the project as a whole.

The range of setbacks for wind facilities with one or more specified turbines is given in section 55 of O. Reg. 359/09 and summarized in Table 1:

Sound power level	Number of turbines within 3km			
	1 to 5	6 to 10	11-25	26+
102 dBA	550 m	650 m	750 m	Noise study required
103-104 dBA	600 m	700 m	850 m	
105 dBA	850 m	1000 m	1250 m	
106-107 dBA	950 m	1200 m	1500 m	
>107 dBA	Noise study required			

Table 1: Setback distances for multiple turbines and various turbine sound power levels

Table 1 illustrates the closest distance the centre of the base of any turbine can be to a noise receptor. While the minimum setback of 550 m must be met in all cases, proponents are given the option of conducting a noise study to prove that siting turbines closer than the setbacks in Table 1 will not cause adverse effects. Such a study must be prepared in accordance with the MOE's 2008 "*Noise Guidelines for Wind Farms*". A Noise Assessment Report demonstrating that reduced setbacks comply with these guidelines must be submitted as part of the REA application.

As indicated in subsection 54 (4) of O. Reg. 359/09, Noise Assessment Reports prepared in accordance with the ministry's *"Noise Guidelines for Wind Farms"* are also required under any of the following circumstances:

- If a wind energy facility is comprised of 26 or more specified turbines (unless all turbines have a sound power level < 102 dBA);
- If the project would result in 26 or more specified turbines located within a 3 km radius of a noise receptor; or
- If any of the turbines in a wind energy facility have a sound power level greater than 107 dBA.

2.4. Exception when Ambient Noise is >40 dBA due to Road Traffic

Road traffic can cause ambient sound levels at noise receptors to be greater than the minimum levels used as a basis for the noise setbacks. If traffic noise causes the lowest hourly ambient sound level at a receptor to exceed 40 dBA, a reduced setback may be used.

As per subsection 54 (2) of O. Reg. 359/09, to rely on this exception in respect of a particular noise receptor, applicants must measure or calculate hourly ambient sound levels at the receptor when wind speeds are less than 4 m/s. This analysis must be performed in accordance with the MOE's publication "*Sound Levels due to Road Traffic*" CNPC-206 (1995, Publication #3407e).

If the measurements or calculations of the analysis establish that the ambient noise from road traffic is greater than 40 dBA, this hourly ambient sound level produced by road traffic becomes the new limiting value. Consequently, the applicant may determine an appropriate reduced setback distance. This is done by conducting a noise study and submitting a report in accordance with the MOE's 2008 publication *"Noise Guidelines for Wind Farms"*. The report must demonstrate that the wind turbine location will not result in noise greater than the lowest hourly ambient sound level at the receptor.

Both the analysis of ambient noise from road traffic and the noise study report in accordance with the 2008 *"Noise Guidelines for Wind Farms"* must be submitted as part of an application for an REA.

2.5. Issuance of a Draft Site Plan and Draft Noise Assessment to Clarify Noise Receptor and Turbine Locations

In order for an applicant to propose a turbine layout that demonstrates compliance with the setback requirements of sections 35, 54 and 55 of O. Reg. 359/09, the locations of noise receptors and existing or proposed turbines from other wind projects must be known. However, the presence and location of both noise receptors and other proposed turbines can change over time. For instance, a landowner may obtain a building permit to construct a residence on a previously vacant lot. Similarly, a neighbouring wind facility proposal may be announced with turbines sufficiently close to influence the combined analysis of noise on a particular receptor. In light of this potential for change, both the public and REA applicants need clarity about the time in which the noise landscape will be fixed so that an application can be reviewed appropriately. This timing must balance the need for applicants to have certainty for finalizing REA documents with the need for the application to reflect the normal changes to the landscape that evolve over time through development.

Note for projects commenced under O. Reg. 116.01

If the project planning was commenced as part of the Electricity Screening Process under O. Reg. 116/01 under the Environmental Assessment Act, only the noise receptors that existed at the time the applicant issued a Notice of Completion must be considered under O. Reg. 359/09.

To provide this clarity, O. Reg. 359/09 specifies that applicants proposing wind projects may issue Draft Site Plan(s) in advance of submitting a complete REA application. Applicants are also required to make available a draft of their Noise Assessment Report along with the Draft Site Plan. Applicants are permitted to issue multiple Draft Site Plans in response to issues that are raised during consultation or additional studies. Applicants are required to provide a Draft Noise Assessment each time they issue a Draft Site Plan, unless they have chosen to use the setback matrix provided in section 55 of O. Reg. 359/09. The issuance of a Draft Site Plan and Draft Noise Assessment Report is governed by a number of requirements pertaining to the content and method of notification/provision to the public, as defined in the sections that follow. However, if all the requirements are met and a public notice is made regarding the issuance of a Draft Site Plan, the noise receptor landscape will be considered fixed on the day prior to publishing or posting the notice.

As described in section 2.3 above, the issuance of a Draft Site Plan will also indicate the locations of turbines which must be considered in the analysis of combined noise (e.g. through the setback matrix in section 55 of O. Reg. 359/09 or noise study) from multiple turbines in other nearby projects. If an applicant chooses to reissue a Draft Site Plan to change the location of turbines, they are responsible for assessing the combined noise effects of making this change with regard to nearby projects.

If no Draft Site Plan is issued for an application subject to an REA, noise receptors will be considered fixed as of the time of submitting an application.

2.5.1. Rights to Private Land Must be Secured

In order to publish a notice of a Draft Site Plan, the applicant must hold sufficient property rights/access in respect of the privately owned land to permit the construction of the proposed turbines. This can include land ownership, leases, or other legal agreements that provide the applicant rights to construct or install the proposed turbines identified on the site plans.

2.5.2. Draft Site Plan Content

As described in section 54.1 of O. Reg. 359/09, general Draft Site Plan description must be supported with clear maps of the site and surrounding area, complete with scale, northing, and legend information. A suitable minimum drawing scale for the overall plan of the project is 1 cm: 500 m. The following details must be included:

- Wind turbines and transformer substations required in respect of the renewable energy project,
- Any noise receptors that may be negatively affected by the use or operation of the renewable energy project, and
- Existing roads within 300 m of the renewable energy project.

In addition to the maps or diagrams, a description of each item above identified in the diagram is required to be given.

To clearly convey all of the required content and to ensure other nearby projects are aware of the position of the proposed turbines when assessing combined noise, the following is recommended:

- Locations of all turbines should be mapped and provided in a table that indicates the UTM coordinates of turbines.
- Turbines from existing or proposed facilities should also be included.
- Noise receptors within an appropriate distance (the ministry recommends plotting all within 2 km of the project location) should be mapped and provided in a table that indicates the UTM coordinates of the noise receptors.

2.5.3. Content and Dissemination Requirements for the Public Notice of a Draft Site Plan

To issue a Draft Site Plan, an applicant must publish a public notice to inform the local public, Aboriginal communities and interested stakeholders. A Notice of Draft Site Plan template can be found in Appendix 3. The notice must contain the following required content:

- The name of the person proposing to engage in the renewable energy project;
- A brief description of the renewable energy project;
- A map identifying the project location;
- If the project location is situated in a local municipality, the date the notice of the Draft Site Plan was first published (for instance, date first published in a newspaper);
- The locations in each local municipality and/or in each unorganized territory where members of the public can inspect paper copies of the Draft Site Plan; and
- A description of the legal effect of the publishing of the Draft Site Plan. This should include the legal effect with respect to the consideration of noise receptors and turbines proposed in other projects.

If proponents wish to publish a separate larger map detailing all the noise receptors and wind turbines, they may do so provided that a small map of the project location is embedded in the notice itself. Both the notice with the embedded project location map and the separate larger map must be published together in the newspaper and made available online.

The notice of the issuance of a Draft Site Plan must be published in a number of locations and provided to a number of organizations/people as described below:

Publication

- If the project location is situated in a local municipality, the notice must be published in a newspaper with general circulation in the local municipality.
    - If the project is located in more than one local municipality the notice should be posted in a newspaper or newspapers with circulation in each local municipality.
- If the project location is in unorganized territory, the notice must be published in a newspaper with general circulation within 25 kilometres (km) of the project location.
    - If no newspaper exists, the notice must be posted in at least six conspicuous locations within 25 km of the project location.
- If it is reasonable to do so, the notice must be published in a newspaper printed by each Aboriginal community on the Aboriginal Consultation List or if the list has not been received, each Aboriginal community with reserve land within or abutting the project location.
    - The publication in a newspaper in an Aboriginal community requires the publisher of the newspaper to agree to the notice's publication.
- If the applicant has a website, the notice must be posted on the applicant's website.

Notice Provided To

- Notices must also be provided to:
    - Every assessed owner of land within 550 m of the project location;
    - Every assessed owner of land abutting land on which the project is located (if not already caught by the 550 m requirement above);

- Every Aboriginal community on the applicant's Aboriginal Consultation List or if the List has not been received, each Aboriginal community with reserve land within or abutting the project location;
- The clerk of every local and upper-tier municipality in which the project is located;
- The secretary-treasurer of each local roads board of a local roads area in which the project location is situated;
- The secretary of each local services board of a board area in which the project location is situated;
- The secretary-treasurer of a planning board that has jurisdiction in an area in which the project location is situated;
- The chair of the Niagara Escarpment Commission, if the project location is in the area of the Niagara Escarpment Plan;
- The MOE's Director as well as the ministry's district manager in each district in which the project location is situated;
- The secretary of every company operating an oil or natural gas pipeline if the pipeline right of way is within 200 metres of the project location;
- The land use office of NAV Canada; and
- Transport Canada's Regional Office for Ontario.

2.5.4. Dissemination of the Draft Site Plan and Draft Noise Assessment Report

The Draft Site Plan and Draft Noise Assessment Report must be made available within 5 days of publishing or posting the notice described above. The locations where the Draft Site Plan and Draft Noise Assessment Report must be made available are:

- On the applicant's website, if one exists.
- In paper copy at a public location within each local municipality or part of unorganized territory, as applicable.
- In each Aboriginal community on the applicant's Aboriginal Consultation List or if the list has not been received, each Aboriginal community with reserve land within or abutting the project location.
  - The Aboriginal community must agree to the applicant making this available in the community.
- To the MOE's Director.

2.5.5. Limitations on the use of Draft Site Plans

Applicants are required to submit their application for an REA within 18 months of publishing or posting their first Draft Site Plan. Applicants are permitted to issue multiple Draft Site Plans within the 18 month period in response to issues that are raised during consultation or additional studies (i.e. cultural or natural heritage assessment or public concerns raised). Once an applicant submits an REA application to MOE, no additional Draft Site Plans can be issued.

Applicants do not have to consider new noise receptors for the purposes of the setback prohibitions after the initial notice of the Draft Site Plan was published if the application is made within the 18 month period. However, the MOE has based the regulatory approach to noise on a 40 dBA outdoor night time noise limit. This limit should be considered when determining turbine placement with respect to new noise receptors which have moved or did not exist at the time of publication of the first Draft Site Plan.

If applicants do not submit their REA application within an 18 month period, new noise receptor locations established or moved during the time between the first Draft Site Plan and final submission must be accounted for in the REA application.

3. Setbacks from Property Lines

To ensure safety on neighbouring properties all wind energy facilities with a name plate capacity of 50 kW or greater (Classes 3, 4, and 5 in O. Reg. 359/09) must be located a minimum setback distance from neighbouring property boundaries. This distance is equivalent to the height of the turbine which is considered as the distance from the ground to the top of the turbine hub without including the blades. As with noise setbacks, the distance is calculated from the centre of the base of the turbine to the nearest property boundary.

The property boundary setback does not apply to a boundary where the abutting property is owned by:

- The proponent of the wind energy facility; or
- A person who has entered into an agreement with the proponent that permits the location of a wind turbine closer than the turbine height. It is recommended that any agreements with landowners provide sufficient detail to meet this requirement.

In the absence of an agreement with a neighbouring land owner specifically permitting a closer setback, the proponent must include, as part of the REA application, a Property Line Setback Assessment Report in order to reduce the property line setback. This report must be developed to demonstrate that siting the turbine in such a location will not result in any adverse impacts on neighbouring businesses, infrastructure, or land use activities. Specifically, this assessment should evaluate the land use in the vicinity of the turbine. This should confirm the presence of structures (i.e. barns, storage buildings, stables) and if there will be any expected adverse impacts associated with the turbine being located closer than the turbine hub height setback. If there are potential adverse impacts, a description of preventative measures to address the potential adverse impacts must be included. Such an assessment must be performed separately for each turbine that is sited within the specified property line setback.

4. Setbacks from Roads and Railways

Safety setbacks from public roads and railways are also required for wind facilities 50 kW and greater (classes 3, 4, and 5 in O. Reg. 359/09). Turbines must be located a minimum distance of the blade length plus 10 m from the boundary of the right-of-way for any public road or railway. This is a requirement for which there is no exception.

5. Setbacks for Associated Transformer Substations

As described in section 35.1 of O. Reg. 359/09, transformer substations that are part of a wind facility and are capable of operating at a nominal voltage of 50 kV or more require siting considerations to avoid impacts from transformer noise. To mitigate noise impacts transformers can be set back 1000 metres from the nearest noise receptor. An alternative setback of 500 metres is permitted if the transformer is surrounded by an acoustic barrier with a density of 20kg/m2. The acoustic barrier must break the line of sight from top and sides of the transformer (including cooling radiators) to the nearest noise receptor.

As a further alternative, the proponent of a wind facility may opt to submit a noise study in accordance with the MOE's 2008 "*Noise Guidelines for Wind Farms*" that covers the noise from the transformer.

For the purpose of identifying noise receptors at Class 4 wind facilities that may be impacted by noise from transformer substations, these are subject to the same noise receptor rules discussed in section 2.5 in respect of wind turbines.

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6. Guidance for Demonstrating Adherence to Setbacks

To enable the MOE to evaluate how a proposed wind energy project meets the setback requirements described in O. Reg. 359/09, information on the project location must be included in the REA application. A Design and Operations Report is required for all wind facilities with name plate capacity 50 kW and greater. This report must include information that clearly demonstrates compliance with setbacks. To do this, the following information must be provided in a description, map or diagram of the distance between the centre of the base of any wind turbine and:

- Any public road rights of way or railway rights of way that are within a distance equivalent to the length of any blades of the wind turbine, plus 10 metres;
- All boundaries of the parcel of land on which the wind turbine is constructed, installed or expanded within a distance equivalent to the height of the wind turbine, excluding the length of any blades; and
- The nearest noise receptor.

On the Site Plan

- The location of all turbines (including turbine identification number/code);
- The location of all transformers;
- The location of all "non-participating" noise receptors (including noise receptor identification number/code);
- All property lines, public roads and rail right of ways;
- The location of all other project components that comprise the wind energy facility and the project location boundary;
- The outer boundaries and classification of all natural features and water bodies; and
- Linear representation of setback distances.

The site plan must clearly show that turbines are located outside of the noise, property line, and road/railway setbacks. Setbacks from the boundary of the project location to natural features and water bodies should also be demonstrated. Where setbacks are not met through preparation of a noise assessment, property line setback assessment, environmental impact study, water body assessment or through an agreement with a neighbouring landowner in respect of property line setbacks, this should be referenced and the studies and/or evidence of agreements provided as part of the complete application.

In a Table or Tables

- A list of all turbines with identification numbers/ codes;
- The location of turbines in UTM coordinates;
- The make and model of all turbines;
- The identification number/code of the nearest noise receptor and the distance to the turbine; and
- Distances from the centre of the base of the turbine to the closest noise receptor, all property lines (regardless of agreements), and road and railway right of ways for each turbine.

If adhering to the noise setback matrix for greater numbers of turbines a separate table should be included with:

- All noise receptors with identification numbers/codes;
- The number of turbines within a 3 km radius of each noise receptor;
- The identification number/code of the closest turbine to the noise receptor; and
- The distance to the nearest noise receptor.

Chapter 4

Guidance for preparing the Project Description Report

1. Purpose of the Project Description Report (PDR)

The Project Description Report (PDR) is the central summary document for an application for a Renewable Energy Approval (REA). It is required for all proposed renewable energy projects if they require an REA under O. Reg. 359/09. The PDR is a critical document for the purpose of reviewing an application since it will include a brief description of a renewable energy project and all negative environmental effects that may result from the project. It is also a critical document for the purpose of consultation since the PDR will be a window into the content of the additional project reports, summarizing the proposed activities and potential effects that will be of interest to stakeholders and the public. The PDR will also be used by the ministry to post a proposal notice on the Environmental Registry when a complete application is submitted. The sections that follow in this chapter will outline how the PDR content will be used to play this important role.

It should also be noted that as the central summary document for the project, the PDR may also be reviewed in relation to other authorizations from other provincial ministries or approval agencies, if such additional permits are required. Local conservation authorities may also issue permits related to certain project activities and the PDR could be used as a tool for related applications. It is recommended that in the PDR applicants consider including additional information required for other approvals, where appropriate.

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2. Overview of PDR Content

The PDR provides information about the proposed renewable energy project by setting out a description of the following required information (as per Table 1 of O. Reg. 359/09):

1. Any energy sources to be used to generate electricity at the renewable energygeneration facility;
2. The facilities, equipment or technology that will be used to convert the renewable energy source or any other energy source to electricity;
3. If applicable, the class of the renewable energy generation facility;

4. The activities that will be engaged in as part of the renewable energy project
5. The name plate capacity of the renewable energy generation facility;
6. The ownership of the land on which the project location is to be situated;
7. If the person proposing to engage in the project does not own the land on which the project location is to be situated, a description of the permissions that are required to access the land and whether they have been obtained;
8. Negative environmental effects that may result from engaging in the project;
9. If the project is in respect of a Class 2 wind facility and it is determined that the project location is not on a property described in Column 1 of the Table to section 19 of O. Reg. 359/09, a summary of the matters addressed in making the determination;
10. If the project is in respect of a Class 2 wind facility in respect of which section 20 applies and it is determined that the project location does not meet one of the descriptions set out in subsection 20 (2) or that the project location is not in an area described in subsection 20 (3), a summary of the matters addressed in making the determination; and
11. An unbound, well marked, legible and reproducible map that is an appropriate size to fit on a 215 millimetre by 280 millimetre page, showing theproject location and the land within 300 metres of the project location.

When an application is submitted, the Ministry of the Environment (MOE) will conduct a completeness review to ensure information has been provided on each of these topics. Section 3 of this chapter provides greater detail on the information expected to be provided under each of the requirements above in a PDR submitted as part of a complete application for an REA.

2.1 Use of the PDF as a Draft Document

The PDR is a key document for consultation throughout the development of the project. For most classes of facilities draft versions of the PDR must be published or submitted for the following purposes:

Purpose[1]	Timing Constraints (if any)
For submission to the MOE (Director) so the ministry can identify the Aboriginal communities that must be consulted about the project	Prior to all other consultation activities
For circulation to all Aboriginal communities identified by the ministry	Prior to issuing any public notices about the project
For public and municipal consultation in advance of the first public meeting	Made available at least 30 days prior to the first public meeting
Drafts may be made available during additional consultation meetings	N/A
For municipal consultation	At least 90 days in advance of the final public meeting
For public consultation in advance of the final public meeting	At least 60 days in advance of the final public meeting
A final version submitted as part of a complete application for an REA	At the time of submitting a complete application

[1] These requirements for publication and submission do not apply to certain facility classes such as Class 2 wind and certain bio-energy facilities. Please refer to Section 7.2.1 of Chapter 1 for complete details on requirements for publishing and submitting the PDR.

Note that the draft PDR may also be useful in providing information to other regulatory agencies for the purposes of obtaining additional permits or approvals as required. For instance, if the project is proposed to be located on Crown land, the applicant is encouraged to provide a copy of the draft PDR to those with Crown interests (i.e. mine claim holders, licensed bait fish operators, licensed trappers, etc.) to facilitate discussion.

2.1.1. Draft Content

The content of the drafts may continuously evolve from the first version that is submitted to the MOE to obtain an Aboriginal Consultation List towards the point of finalizing the PDR when submitting a complete application. For instance, as the project moves forward the description of the project and its negative environmental effects that will or are likely to occur will be refined by considering the conclusions of required technical investigations and the comments received during consultation. While draft PDRs will provide a detailed description of all anticipated negative environmental effects, the final submitted PDR will reflect the final project description and final conclusions about the likelihood and magnitude of these effects.

As the PDR is finalized and additional project reports are drafted, the PDR becomes an executive summary of the project. As a summary report, the PDR will be a useful tool for later stage public consultation such as for the final public meeting and for consultation during the application review phase through the Environmental Registry proposal notice posting. For this reason it is important that the final PDR contains a comprehensive summary of the project including repetition of the key information from other reports such as the Design and Operations Report.

At all stages (drafts and final) the PDR should include sections or chapters covering all the required PDR contents specified in Table 1 of O. Reg. 359/09. In reading the subsequent sections of this chapter which further clarify the information needed in the PDR, applicants should be aware that the level of detail indicated reflects that which would be required for the final submitted PDR. As discussed above, earlier draft versions of the PDR may contain a level of detail consistent with the applicant's progress to complete studies and investigations required for the REA.

In considering this evolution of the PDR, applicants should also be aware that some project changes may have a significant impact on the regulatory requirements that must be met. For example, if refined information about a wind turbine sound power level or name plate capacity causes the project to be reclassified according to the REA classes, this could add significant new requirements for the project. Applicants should exercise caution when proposing projects that have technical specifications near to the triggers for REA classes. If such a proposal is being made, it would be prudent for the applicant to confirm the Class of project prior to proceeding too far along the REA application process. In fact, this recommendation applies broadly to the proposal of renewable energy projects: applicants should not start the approval process until they have a solidified project concept to avoid triggering new requirements part way through the project if the proposal changes significantly.

2.1.2. Specific Guidance for the Preparation of a Draft PDR to Obtain a List of Communities for Aboriginal Consultation

The purpose of this section is to provide specific direction on the information needed in a draft PDR for the purpose of obtaining a list of Aboriginal communities for consultation.

The Crown has a duty to consult all Aboriginal communities that have existing or asserted Aboriginal or treaty rights that may be adversely affected by a Crown decision. The Crown has delegated procedural aspects of this duty to the applicant through various provisions of O. Reg. 359/09. With the exception of Class 2 wind projects, all REA applicants are required to obtain a list of Aboriginal communities to consult from the Director. To determine the communities on the list, the Director will rely on information provided in the draft PDR submitted for this purpose. Therefore, the draft PDR must include enough detail about the project to determine if there is a potential impact on an existing or asserted Aboriginal or treaty right or if an Aboriginal community is otherwise interested in negative environmental effects of the project that will or are likely to occur.

As with all draft PDRs, the draft submitted for an Aboriginal Consultation List should include sections or chapters covering all of the required PDR contents specified in Table 1 of O. Reg. 359/09. However, two components of the report will be of greatest use for determining potential impacts on Aboriginal rights or interests and require emphasis. These are:

- The description of negative environmental effects that will or are likely to occur; and
- The project location and the land use in the vicinity of the project location.

While the applicant's assessment of the likelihood or magnitude of negative environmental effects that will or are likely to occur could change as the project moves towards a complete submission, it is important for the draft PDR to include all negative effects that could potentially occur. The draft PDR should go further than simply listing effects; a description should indicate as much information as possible about the cause of the effect, as well as how and where the effect will manifest in the environment. It is also important that all categories of negative environmental effects that will or are likely to occur discussed in section 5 of this chapter are considered. If the applicant believes that a negative environmental effect has no potential to occur, the draft PDR should include an explanation of how this determination was made.

The level of detail required for describing project equipment and activities in the draft PDR should reflect needs for identifying and describing negative environmental effects that will or are likely to occur. If the project has not been defined in adequate detail all negative environmental effects that will or are likely to occur, the draft PDR may be returned for further clarification prior to the ministry providing the list of Aboriginal communities to consult. This is illustrated in the following examples:

Example 1

The applicant is proposing a large solar farm and it is uncertain if a water taking may be needed during construction of the project. The applicant is therefore not able to describe negative environmental effects that will or are likely to occur related to water taking.

Recommended Approach

In this case the applicant should advance the design of the project to the point where the water taking can be confirmed or excluded. This will allow the applicant to consider and describe negative environmental effects that will or are likely to occur in the draft PDR to an extent that would be sufficient for MOE to provide an Aboriginal Consultation List.

Example 2

The applicant is proposing a wind energy facility with six 1.5 MW turbines but has not confirmed the exact turbine model that will be procured for the project. The applicant can confirm that all models under consideration have a similar design and noise output.

Recommended Approach

In this case the applicant can define negative environmental effects that will or are likely to occur (e.g. noise, potential impacts on birds and bats, others as determined by the applicant) based on the range of equipment under consideration. The uncertainty about turbine model should not prevent submitting the draft PDR for the purpose of obtaining an Aboriginal consultation list.

The key difference between Example 1 and Example 2 is that in 2 negative environment effects that will or are likely occur can still be described with the level of detail provided. In Example 1, an important project activity is not confirmed and thus negative environmental effects that will or are likely to occur can not be described. Applicants should bring their project planning far enough along to be able to describe all negative environmental effects that will or are likely to occur prior to completing a draft PDR.

As noted above, the project location and the land use in the vicinity of the project are also important in determining if negative environmental effects of the project that will or are likely to occur may impact the exercise of an existing or asserted Aboriginal or treaty right. Thus, a good quality map depicting the project and land within 300 m of the project is required in the draft PDR submitted for an Aboriginal Consultation List.

2.2. PDR Structure

The PDR is a key document for the purposes of consultation. The PDR should be structured clearly to help stakeholders interested in the project find information related to their interest or concern. It should also be structured in a manner that aids the MOE in determining its completeness with respect to the regulated requirements in Table 1 of O. Reg. 359/09. To assist applicants in structuring the report to achieve these goals, the following draft outline is recommended:

- General Information (see section 3)
  - Name of the project and applicant
  - The project location
  - Description of the energy source, name plate capacity, and the class of facility
  - Contact information
  - Other approvals required
  - Federal involvement

- Project Information (see section 4)
  - Facility components
  - Project activities
  - Map of project location
  - Land ownership

- Negative environmental effects that will or are likely to occur (see section 5)
  - Heritage and Archaeological Resources
  - Natural Heritage
  - Water Bodies
  - Air, Odour, Dust
  - Noise
  - Land Use and Resources
  - Provincial and Local Infrastructure
  - Public Health and Safety
  - Areas Protected under Provincial Plans and Policies

The remainder of this chapter provides details on the information needed for the PDR, organized under the above headings.

3. General Information

The section on general information should provide a project overview that states the key facts of the project. This section must include the information required in Table 1 of O. Reg. 359/09 related to:

- Any energy sources to be used to generate electricity at the renewable energy generation facility;
- The name plate capacity of the renewable energy generation facility; and
- If applicable, the class of the renewable energy generation facility.

The section will also provide additional information about the project name, the project location, contact information, and other approvals required for the project including federal involvement, if applicable.

The ministry will draw upon the General Information section to create an Environmental Registry proposal notice for public consultation during the ministry review phase of the REA process. For this reason, applicants are recommended to include all of the information noted in the sections below.

3.1. Name of the Project and Applicant

This section should indicate the name of the applicant as well as the names of any previous proponent of the project, if the project had been publicly discussed by a different entity at an earlier stage.

The name of the project should be given, as well as any previous name used to describe the project, if the project had been publicly discussed using a different name at an earlier stage. If more than one project was merged to create the current project, this should also be indicated.

3.2 The Project Location

A description of the geographic location of the project should be given. This should include a summary map and written information such as the municipal address, legal description of the lot or lots, and the municipality in which the project will be located. The description should be selected to reflect the appropriate geographic scale of the project. For instance, a small scale project located on one property may best be described by the legal description of the property or the municipal address. Alternatively, a large project covering multiple lots may be best described by providing the municipalities in which it is located as well as the lots or other boundaries of the project such as roadways.

To complement the description of the geographic location, the total area of land covered by the project location (i.e. area of all project equipment and activities, see the definition of project location under O. Reg. 359/09 which is discussed in more detail in Chapter 1) should also be provided. For reference, the total area of the property or properties on which the project is proposed to be located should also be provided to indicate the lot coverage.

Note that there is a specific requirement for the PDR to include a more detailed map, see section 4.3. The description of the project location in the General Information section will not replace the need for this map; however reference to the map may be made in this section.

3.3. Description of the Energy Source, Name Plate Capacity, and Class of Facility

Applicants must describe any sources of energy that are proposed to be used to generate electricity, including all non-renewable supplementary fuel sources that may be used to generate electricity.

The name plate capacity and Class of facility should also be provided if applicable. Technology-specific guidance is provided below:

Wind

- The total name plate capacity of the turbines at the facility including the total number of turbines and their individual name plate capacities
- The sound power level in dBA of the proposed turbines
- The Class of wind facility
- A reference to technical information related to the model of turbine can also be made to direct the reader to information substantiating the name plate capacity and sound power level

Solar

- Total name plate capacity of the facility (see section 4.1 of Chapter 1 for more detail on how this should be reported)
- The Class of solar facility, if applicable
- A reference to technical information related to the model of solar photovoltaic (PV) module can also be made to direct the reader to information substantiating the name plate capacity

Bio-energy

- Information about the energy source must indicate if anaerobic digestion, thermal treatment, biogas, or another method of generating electricity is proposed
- If the project relates to an anaerobic digestion facility or a thermal treatment facility, the applicant should indicate if the facility will be located at a farm operation
- Name plate capacity and Class of facility (if applicable)
- The daily and annual average quantities of any biomass, source separated organics, or farm materials proposed to be processed as part of the project
- The amount of electricity generated from non-renewable resources (such as natural gas) as a percentage of the total amount of electricity generated. Applicants are advised to consult paragraph 9 (1) 7 which specifies that for facilities with name plate capacity under 500 kW, 90% of the electricity must be from renewable sources. For facilities with name plate capacity over 500kW, 95% of the electricity must be from renewable sources. This measure includes electricity generated during start up and shut down periods. Providing the percentage of non-renewable electricity generation will demonstrate how the project meets the requirements for being a renewable energy generation facility for the purpose of O. Reg. 359/09.

3.4. Contact Information

The contact information that the applicant should provide in the PDR includes:

- The name of the applicant and any co-applicant(s)
- The name of any project consultant(s) representing the applicant, if applicable

Contact information should include the address, telephone, fax, and e-mail that the applicant and consultant (if applicable) can be reached at. While a corporation name can be provided, an individual's name should be identified as the contact person for the project for both the applicant(s) and consultant(s). If the applicant has a website, the address of the website should also be provided.

3.5. Other Approvals Required

To ensure that project approvals are evaluated in a timely and coordinated manner, it is recommended that applicants provide information relating to all required or applicable permits, licences and authorizations, other than the REA approval, that applicants believe must be obtained for the project to proceed. For example, this may include permits from the Ministry of Natural Resources (MNR), the Ministry of Transportation (MTO), municipal building permits and conservation authority approvals, etc.

3.6. Federal Involvement

It is recommended that applicants provide information on any federal environmental assessment required under the Canadian Environmental Assessment Act to which the project has been or could be subjected to, as well as information on the status of the federal EA process, federal authorities involved, and contact persons. Additional federal approvals may apply to the project including those under the Fisheries Act and Species at Risk Act, among others. Applicants that are required to obtain other federal permits and approvals should provide information related to the status of those permits and approvals.

4. Project Information

The project information section of the PDR provides an overview of all the project components and project activities proposed. This section will include the information required for the following content outlined in Table 1 of O. Reg. 359/09:

- The facilities, equipment or technology that will be used to convert the renewable energy source or any other energy source to electricity;
- The activities that will be engaged in as part of the renewable energy project;
- The ownership of the land on which the project location is to be situated;
- If the person proposing to engage in the project does not own the land on which the project location is to be situated, a description of the permissions that are required to access the land and whether they have been obtained; and
- An unbound, well marked, legible and reproducible map showing the project location and the land within 300 metres of the project location.

4.1. Facility Components

Applicants must further describe the facilities, equipment or technology used to generate electricity and all associated and ancillary equipment needed to engage in the project.

Examples of the generation equipment and ancillary components to be considered are described in the table below:

	Electricity Generation Equipment	**Ancillary Components**
Wind	Wind turbine information should include the make, model, name plate capacity, tower height, hub height above grade, blade length, blade sweep area, rotational speeds and acoustic emissions data, including the sound power level and frequency spectrum, in terms of octave-band sound power levels. Key specifications should be reported in the PDR, with reference to the Wind Turbine Specification Report for greater detail (if applicable).	• Roads • Transmission/distribution lines, poles, or support structures if applicable • Transformers • Other electrical conversion, metering, and protection/control equipment as applicable • Lay down areas • Storage infrastructure • Buildings (temporary and permanent, required for the project) • Water crossings (e.g. bridges) These may be proposed for all types of renewable energy generation facilities.
Bio-energy	Generation equipment related to anaerobic digestion, biogas, thermal treatment, biofuel or biodiesel or other energy generation equipment including the generator and any air pollution control equipment. Feed and waste handling equipment and storage facilities.	
Solar	Solar photovoltaic (PV) module information, including make, model, name plate capacity, size, dimensions, number of modules etc., Solar thermal, generators, pressure vessels and solar photovoltaic cells.	

4.2. Project Activities

In this part of the PDR, applicants must provide an overview of all activities engaged in as part of project throughout all project phases. At the time of submission, more detail on these activities will be included in the Design and Operations Report and sections of this report can be referenced if relevant. However it is important that the applicant still provide an overview of all activities in the PDR so that it can be a useful document for the purpose of consultation.

The following should be described:

- All activities involved in the construction, installation, use, operation, changing and retiring of the facility
- The facility phases and the timing and scheduling of each phase for a new facility or for the expansion of or modification to an existing facility (e.g. time of year, frequency and duration)
- Any solid or liquid wastes proposed to be generated while engaging in the project and any plans to manage these wastes
- Air and noise emissions that are likely to be generated while engaging in the project
- Disposal plans for any toxic or hazardous materials to be used or any by-products to be generated while engaging in the project
- Any plans for managing sewage and storm water
- Any water-taking from ground water or surface water

4.3. Project Location Map

Applicants must submit an unbound, well marked, legible and reproducible map showing the project location and the land within 300 metres of the project location. The map is also required to be drawn to scale and include both a scale bar and north arrow.

The map should also:

- Identify the boundaries of the project location;
- Identify and briefly describe on-site land uses on the project location;
- Identify and describe the off-site land uses within minimum 300 metres of the project location;
- For a project proposed to be built on Crown land, illustrate Crown land users (i.e. Land Use permits, claims, cabins, camps, trap lines); and
- To the extent that is feasible in depicting information clearly on the map show:
    - Any cultural heritage resources (note that the precise locations of archaeological sites are sensitive and should not be included in the map), natural features, and water bodies identified through the records review.

4.4. Land Ownership

Applicants must clearly identify if the land is privately owned or owned by the Crown. A legal description of the parcels of the land that will be used for the proposed renewable energy generation facility must be provided for private land and Crown land, where available, at the time of application.

If the applicant does not own the land over which the project is proposed, the PDR must describe through what legal means (easements, leases, etc.) it will be entitled to access and carry out all phases of the project on the land.

One example of how land ownership or rights can be described is where an applicant includes in the PDR a generic copy of the lease or other legal instrument used along with a statement that notes all the lots have been granted access through the lease.

5. Description of Environmental Effects

In this section of the PDR, negative environmental effects that will or are likely to occur from engaging in a renewable energy project must be described. Applicants may also describe any positive environmental effects that may result from engaging in a renewable energy project.

The description of negative environmental effects that will or are likely to occur is a critical element of the REA application. This description will form the basis and framework for describing all mitigation strategies and design features contained in the other REA reports. For instance, this list should be used to generate the Environmental Effects Monitoring Plan (EEMP) in the Design and Operations Report, where each potential effect is connected to related mitigation strategies, performance objectives for mitigation, monitoring, and contingency plans, as appropriate. The description of negative environmental effects that will or are likely to occur should also reflect all phases of the project, including construction, installation, operation, use, and decommissioning of a renewable energy generation facility.

From a project management perspective, it is recommended that applicants complete a preliminary records review and a preliminary site visit prior to preparing a draft PDR. While sections 24 – 26 and 29 – 31 of O. Reg. 359/09 has requirements for formal records review at and within 120 meters (with the exception of ANSI (earth sciences) at and within 50 meters) and site investigation at and within 50 to 120 meters of the project location related to natural features and 120 meters for water bodies, applicants are encouraged to conduct a preliminary search to help identify features of potential interest and describe negative environmental effects that will or are likely to occur at an early stage.

The following Table helps clarify the formal site investigation requirements of section 26 of O. Reg. 359/09 in regards to natural features.

Renewable Energy Type	**Project Location Component**	**Site Investigation Area** (includes air, land and water)
Solar Projects	Construction, installation or expansion of a solar facility (all project components)	At and within 50 m of the project location
For Wind & Bio-energy Projects	Construction, installation or expansion of a transmission or distribution line	At and within 50 m of project location component*
	Expansion of an existing transformer station or distribution station	
	Expansion of an existing transportation system	
	General development (i.e. all other types of construction, installation, or expansion)	At and within 120 m of project location components*

* Since a project might contain components from both categories, applicants may choose to conduct a site investigation at and within 120 meters of the project location components to assist with overall site planning. Setbacks for additional natural features in specified provincial plan areas may differ from those listed in the table above.

The preliminary site visit may simply be a non-technical walkabout survey. It is further recommended that this visit cover a broad area out to at least 300 metres of the project location, to the extent possible. In so doing, applicants will be able to consider negative environmental effects that will or are likely to occur, even if they are likely to manifest beyond the setback distances for most natural features and water bodies. A survey of the broader vicinity of the project location will also aid applicants in confirming the contents of the required Project Location Map (see section 4.3 Project Location Map).

As discussed in section 2.1, draft versions of the PDR are used at various points during the REA consultation process and the description of negative environmental effects that will or are likely to occur will become more refined as project planning moves forward. Applicants are encouraged to revise the description of negative environmental effects that will or are likely to occur in PDR drafts as new information is obtained through consultation with relevant federal and provincial agencies and municipal authorities, potentially affected and interested individuals, Aboriginal communities and the public.

When submitted as part of an application for an REA, the description of negative environmental effects that will or are likely to occur contained in the PDR should stand as a final comprehensive assessment. At that time, the PDR should also state conclusions about the likelihood and magnitude of the environmental effects that will or are likely to occur. These conclusions will be supported by other technical reports that accompany the PDR and sections of these reports (such as the Design and Operations Report) can be referenced to assist the reader in locating relevant project details.

The reports required by Table 1 of O. Reg. 359/09 and in other sections of the regulation itself (such as for the Design and Operations Report, Surface Water Assessment Report, etc.) contain content sections that should allow for a fulsome discussion related to negative environmental effects that will or are likely to occur by engaging in the renewable energy project.

For instance, negative environmental effects that will or are likely to occur from odour at a bio-energy facility can be discussed in relation to facility design measures in the Design and Operations Report and through the evaluation of odour in an odour study report (if required). However, applicants may identify additional negative environmental effects that will or are likely to occur that are not easily discussed in the standard reports required by the regulation.

Two examples of additional reports that may be required to address negative environmental effects that will or are likely to occur are: Storm Water Management Plans and Traffic Management Plans. For instance, a solar project proposal could include landscaping changes that alter the quantity or quality of storm water flows generated on the site. An applicant may determine that to adequately describe this negative environmental effect that will or is likely to occur, a Storm Water Management Plan should be prepared even though such a report is not explicitly listed in Table 1 of O. Reg. 359/09. Similarly, a number of renewable energy projects can have negative environmental effects as a result of truck traffic related to construction and/or operation of the facility. If traffic issues are identified as a negative environmental effect that will or is likely to occur, an applicant should prepare a Traffic Management Plan to evaluate this impact and propose mitigation measures. Further clarity on the content of Storm Water Management Plans and Traffic Management Plans, as well as circumstances where the ministry would expect such plans to be prepared, is given in sections 5.3 and 5.6, respectively.

The following sections provide more detail on ministry expectations about the description of negative environmental effects that will or are likely to occur. These sections represent the principal categories of negative environmental effects that should be considered in preparing the PDR. If an applicant determines that a negative environmental effect may occur that is not captured by one of these categories, they must still include it in their description.

Description of Environmental Effects from On-Farm Bio-Energy Facilities

For on-farm bio-energy facilities (anaerobic digestion Class 1 and 2, thermal treatment, Class 1 if on farm and Class 2) the farm operation on which the facility is located might already be subject to O. Reg. 267/03 under the Nutrient Management Act, 2002. Applicants should consider, in their description of negative environmental effects that will or are likely to occur, how these effects may be mitigated by following requirements of O. Reg. 267/03, such as through the adherence to a nutrient management strategy at the farm operation.

In addition, if O. Reg. 267/03 under the Nutrient Management Act, 2002 does not apply to the on-farm bio-energy facility, this regulation may still provide useful guidance for mitigating negative environmental effects that will or are likely to occur. For example, applicants should consider adherence requirements related to land application for digestate, setback distances from wells and water features, in addition to construction standards, as appropriate, for their facility. Such mitigation measures should be detailed where applicable in the Construction Plan Report and the Design and Operations Reports to substantiate the description of negative environmental effects in the PDR.

5.1. Cultural Heritage (Protected Properties, Archaeological and Heritage Resources)

As outlined in section 6.1 of Chapter 1, applicants must meet the cultural heritage requirements of sections 19 - 23 of O. Reg. 359/09. This involves determining whether there are any protected properties described in Column 1 of the Table in section 19, on or abutting the parcel of land on which the project is situated. Applicants are also required to identify what archaeological and heritage resources are present at the project location through the archaeological and heritage assessment processes. Once resources are identified and evaluated, the assessment reports will evaluate negative environmental effects that will or are likely to occur and make recommendations for the avoidance or mitigation of those effects.

With the exception of projects prescribed under section 20, all applicants must undertake archaeological and heritage assessments, unless they determine that there is low potential for archaeological and heritage resources at the project location and that there are no abutting protected properties, by using the checklists issued by the Ministry of Tourism, Culture and Sport (MTCS):

- REA Checklist: Consideration of Potential for Archaeological Resources; and
- REA Checklist: Consideration of Potential for Heritage Resources.

Depending on the outcome of the checklists, heritage or archaeological assessments may still be necessary. Applicants looking to minimize risk and to achieve a higher level of certainty may choose to undertake heritage and archaeological assessments without filling out the checklists.

In the case of those projects that are prescribed under section 20, a heritage assessment is not required. An archaeological assessment is only required if one of the following conditions is met:

- the project location is within 250 m of an archaeological resource known to MTCS;
- the facility is located on a property designated as an archaeological site under Reg. 875 made under the Ontario Heritage Act; and/or
- the project location is in an area of archaeological potential that has been identified on a municipal archaeological management plan.

In this section of the PDR, applicants should provide a summary of negative environmental effects that will or are likely to occur on the following cultural heritage resources: any protected properties on and/or abutting the parcel of land the project is situated on, archaeological resources and/or heritage resources. This description will be largely based on conclusions drawn from the heritage and archaeological assessment reports.

In the case of Class 2 wind projects, if an applicant determines that there are no protected properties at the project location, and / or that the project location does not meet any of the conditions listed in section 20, a written summary supporting these conclusions must be included in this section of the PDR.

Applicants should consult the MTCS's guide *"Cultural Heritage Resources: An Information Bulletin for Projects Subject to Ontario Regulation 359/09 Renewable Energy Approvals"* for more information on how to fulfil REA requirements outlined in sections 19 - 23 of O. Reg. 359/09.

5.2. Natural Heritage

As outlined in section 6.2 of Chapter 1, applicants should consider whether the proposed renewable energy project may have an impact on natural heritage features including but not limited to Areas of Natural and Scientific Interest (ANSI), wetlands, woodlands, wildlife habitat, provincial parks, and conservation areas. This description will be largely based on conclusions drawn from reports related to the Natural Heritage Assessment (NHA) prepared to fulfil REA requirements provided in sections 23.1 – 28 of O. Reg. 359/09. Applicants should consult the MNR guide *"Natural Heritage Assessment Guide for Renewable Energy Projects"* for more information on this assessment.

For applicants proposing a Class 3, 4, or 5 wind facility, an Environmental Effects Mointoring Plan (EEMP) is required in respect of impacts to birds and bats. The description of negative environmental effects that will or are likely to occur for these facilities in the PDR should include potential impacts to birds and bats as an effect and provide a summary/reference to the monitoring plans. More information on preparing these plans can be found in the following guidance documents published by the MNR:

For Bird Habitat:

> *"Birds and Bird Habitats: Guidelines for Wind Power Projects" dated December 2011 as amended from time to time.*

For Bat Habitat:

> *"Bats and Bat Habitats: Guidelines for Wind Power Projects" dated July 2011 as amended from time to time.*

Negative environmental effects related to natural heritage resources that will or are likely to occur may include effects that are not covered within the NHA or Bird and Bat Monitoring Plans.

Other approvals, such as those under the Endangered Species Act, 2007 or approvals under the Fisheries Act administered by Fisheries and Oceans Canada, may address additional potential effects. Applicants should describe all negative environmental effects related to natural heritage resources that will or are likely to occur and indicate where additional approvals (either granted or required in the future) will address specific effects.

When preparing a draft PDR for the purpose of early-stage consultation activities, the NHA is not likely to be completed. In this case it is recommended that applicants provide information relating to all natural heritage requirements that applicants believe must be completed in order for the application to be submitted. A summary of any preliminary records or site visit conducted should also be included. Prior to completing a draft PDR, the applicant should have enough information about the project location to be able to anticipate and generally describe all negative environmental effects that will or are likely to occur.

Applicants are encouraged to consult with conservation authorities regarding potential natural heritage features in the proposed development areas. As watershed managers, conservation authorities play an important role in the collection of natural heritage information.

At the time of submitting an REA application, the PDR should include a summary of conclusions about the significance of negative environmental effects on natural heritage that will or are likely to occur drawn from the reports identified above and any other work to obtain additional permits.

5.3. Impacts on Surface Water and Ground Water

Applicants are expected to consider whether the proposed renewable energy project may have an impact on both surface water (e.g. lake, a permanent stream, an intermittent stream and a seepage area) and ground water. The description of negative environmental effects that will or are likely to occur in the PDR should be connected to the applicant's water assessment and any supplementary report prepared to describe impacts resulting from locating the facility within the required setbacks to water bodies (as described in subsections 39 (2) and 40 (2) of O. Reg. 359/09). Similarly, if additional reports related to water, such as the Hydrogeological Assessment Report, Surface Water Assessment Report and Effluent Management Plan Report, are required as part of an REA application, the conclusions from these additional reports should be summarized.

Potential impacts on water bodies may also be subject to additional permits required by a local conservation authority, MNR and/or Fisheries and Oceans Canada.

Conclusions drawn from work undertaken or proposed in relation to these permits can also be used to describe negative environmental effects of the project that will or are likely to occur.

In considering negative environmental effects on water bodies and ground water that will or are likely to occur, the applicant should evaluate the following activities/ mechanisms:

Water Takings

If a water taking activity is proposed in any of the project phases (including construction) applicants must describe all negative environmental effects that will or are likely to occur with regard to water quality, quantity and impacts on existing uses of the surface or ground water resource. Important environmental effects to consider include, but are not limited to:

- The potential to interfere with existing uses of the water resource (especially with domestic drinking water or household supplies);
- The prospect for ground water pumping to cause migration of contamination that can impair existing use of aquifers;
- The potential to stop or reduce surface water flow to a rate or level that interferes with natural functions of water bodies;
- The potential to cause flooding, erosion or contamination of water bodies to which return flow of taken water is directed; and
- The potential for ground water taking to result in land subsisdence and related property damage.

The description should be included in the PDR for all water takings, including those less than 50,000 litres per day. Conclusions about the magnitude and likelihood of potential effects should be based on a summary of information contained in other reports, such as the Design and Operations Report where the nature of the water taking will be detailed.

Applicants are advised to discuss potential water takings with the MOE, Environmental Approvals Access and Service Integration Branch at an early stage of project planning. In this way, the risk of negative environmental effects that will or are likely to occur can be addressed commensurate with the water taking activity (short term, long term, occasional). It will also outline the appropriate and relevant water conservation and use efficiency measures according to the life cycle stage of the renewable energy generation facility.

Discharge into a Water Body

If a discharge of sewage including storm water to a water body such as a lake or stream is proposed, applicants must describe negative environmental effects that will or are likely to arise from the discharge. In most cases, applications proposing effluent discharges will also require an Effluent Management Plan Report and a Surface Water Assessment Report as part of a complete application. Since equipment such as piping conveying the effluent to the water body is considered part of the "project location", discharges to surface water will likely also require the applicant to submit a supplementary report documenting any additional mitigation measures as a result of not adhering to setback requirements under sections 39, 40, 44, and 45 of O. Reg. 359/09. The conclusions of these reports should be summarized to indicate the significance of negative environmental effects that will or are likely to occur.

Discharges of sewage to the surface of the land or underground (for instance to a septic tank) may also be proposed. Negative environmental effects that will or are likely to occur from such discharges must also be described if they are proposed as part of a renewable energy project.

Spills

Applicants should identify if there are any activities proposed in any of the project phases that could result in accidental spills of contaminants. The significance of this negative environmental effect should be described in the context of information provided in the facility design, operations plan and emergency response plan in the Design and Operations Report where mitigation measures may reduce the risk of spills.

Surface Water Runoff

Applicants should determine if changes to the site during any phases of the project may affect the quality and quantity of surface water runoff. If changes to the quality or quantity of runoff could result in negative environmental effects, these effects should be described. Furthermore, if a water body exists within the setback distances prescribed under sections 39, 40, 44, and 45 of O. Reg. 359/09, any specific impacts on the water body and the land within 30 metres of the water body as a result of surface water runoff should also be described.

As mentioned at the beginning of section 5, an applicant may determine that a Storm Water Management Plan is the best way to describe negative environmental effects that will or are likely to occur

due to surface water runoff. Such a conclusion could be drawn if landscape changes (such as an increase in impervious surface) were likely to result in a significant change to surface water flow or quality. Since the content of a Storm Water Management Plan is not prescribed by Table 1 of O. Reg. 359/09, the applicant should determine the appropriate content of such a report in order to best support conclusions about negative environmental effects that will or are likely to occur. This can be done by consulting with the MOE Regional or District Office that has jurisdiction over the proposed project location. The MOE publication *"Stormwater Management Planning and Design Manual"* (2003, Publication #4329e) can also be used to assist applicants in determining appropriate storm water management practices. A local conservation authority, if one exists, can also be an important source of information for preparing a Storm Water Management Plan. For instance such an authority may have previously generated a watershed or sub-watershed plan that may provide relevant information.

If a Storm Water Management Plan is prepared, conclusions drawn from this plan should be summarized to describe the significance of negative environmental effects that will or are likely to occur in the PDR.

Solar Facilities and Ground Water Monitoring

Depending on site location and characteristics, solar photovoltaic project proponents may be required to implement pre- and post-construction ground water monitoring to ensure that any potential impacts on ground water are known and addressed prior to construction, particularly where drinking water sources stand potentially to be affected. In order to assess potential ground water issues and whether or not ground water monitoring may be required, applicants should contact the local MOE Regional or District Office early in the planning process to discuss any potential need for assessment and monitoring. The ministry's technical staff in the Regional or District Offices can provide guidance on what information may be required in order to properly assess the geological and hydrogeological conditions at the project site. If anything of environmental concern or significance is found during the ground water monitoring, the ministry will work with the applicants to ensure they take appropriate steps to address and mitigate any potential impacts. Contact information for Regional Or District Offices can be found in Appendix 2.

5.4. Emissions to Air including Odour and Dust

Applicants are expected to describe negative environmental effects that will or are likely to result from engaging in a project on air quality due to emissions of contaminants, including but not limited to, nitrogen dioxide, sulphur dioxide, suspended particulates; and negative effects from the emission of dust or odour. This description should consider activities in all project phases including construction.

5.5. Noise

Applicants are expected to describe negative environmental effects that will or are likely to occur from the emission of noise on noise receptors in the vicinity of the project. All project phases should be considered, including construction.

Specific Guidance for Class 2 Wind Projects

Small wind projects that fall under the definition of Class 2 (greater than 3 kW but less than 50 kW name plate capacity) do not have noise-based setback requirements under O. Reg. 359/09. These projects also have streamlined reporting requirements where the application requires only the PDR and a Specifications Report (Class 2 Wind Facility). While the application requirements have been scaled to reflect the more limited potential impact of Class 2 wind facilities, it is still important that the applicant discuss negative environmental effects that will or are likely to occur due to noise in the submitted PDR. To do so, it is recommended that the applicant include the following information:

- A summary the noise emissions of the proposed turbines with reference to the Class 2 Wind Facility Specifications Report;
- A description of the location of the wind turbine (or turbines) in relation to the location of noise receptors in the vicinity of the project; and
- Conclusions about the likelihood and magnitude of negative environmental effects that will or are likely to occur from noise as a result of the project and how these are addressed/mitigated.

This information does not need to include a noise study unless the applicant determines that the scale or uncertainty of negative environmental effects that will or are likely to occur from noise is sufficient to warrant such a study.

Specific Guidance for Class 3 Wind Projects

Class 3 wind projects are those with name plate capacity greater than or equal to 50 kW but with turbines that all have a Sound Power Level less than 102 dBA as determined through standard CAN/CSA-C61400-11-07. Such turbines are quieter than normal industrial scale turbines and as such are not required to meet the noise setback requirements in O. Reg. 359/09. However, even though these turbines may have less impact than those with a Sound Power Level greater than or equal to 102 dBA, Class 3 facilities cover a range of project scales that can include large projects with multiple turbines. For this reason applicants are strongly recommended to prepare a noise study in accordance with the MOE Publication *"Noise Guidelines for Wind Farms"* (October 2008, Publication #4709e) as a way to evaluate noise effects for Class 3 facilities and determine appropriate setback distances from noise receptors.

While other means for describing noise impacts could be considered by an applicant, if the information provided does not allow for the rigorous review of turbine noise, the Director can request a noise study be submitted during the review phase under authority of subsection 47.4 (2) of the Environmental Protection Act. Since a request during the application phase has the potential to delay application review timelines, applicants proposing to not submit a noise study are advised to discuss their approach with the Environmental Approvals Access and Service Integration Branch at the MOE at an early stage of project planning.

5.6. Local Interests, Land Use and Infrastructure

In this section of the PDR, applicants are expected to describe negative environmental effects on local interests and infrastructure that will or are likely to occur. Some examples of local interests and infrastructure that may be potentially affected include:

- Road capacity and local traffic;
- Road infrastructure itself (i.e. damage to roads during construction);
- Water and sewage infrastructure (note that impacts on surface and ground water are covered in section 5.3);
- Electrical, telecommunications, and/or natural gas infrastructure, if applicable;
- Local airports or aerodromes;
- Recreation areas; and/or
- Hiking or other recreational trails.

Proponents are advised to consult early in the REA process with municipalities, local service boards and other federal/provincial government agencies, as applicable, to identify local interests in the vicinity of the project and to determine negative environmental effects that will or are likely to occur from the project. This discussion will also outline the need for any additional permits (such as building permits, road use agreements, and others). Specifically with respect to provincial highways and roads it is recommended that applicants contact MTO early in the process to determine any additional permit requirements.

Municipal consultation on these interests is further facilitated by the Municipal Consultation Form which must be provided 30 days in advance of the first public meeting to each municipality (both upper and lower tiers where tiered jurisdictions exist) in which the project is located. Sections on the Municipal Consultation Form will allow the municipality to comment on the potential impacts on local interests. This feedback should assist the applicant in assessing the magnitude and likelihood of negative environmental effects that will or are likely to occur related to local interests and infrastructure.

The description of effects related to local interests will also benefit from meaningful consultation with the public and Aboriginal communities, which may identify additional interests not known to the applicant or provide suggestions for mitigation that can be used to minimize impact.

At the time of submitting the PDR as part of a REA application, the description of negative effects on local interests and infrastructure should reflect any changes that result from comments received from all avenues of consultation.

Airports/Aerodromes

Proponents are encouraged to consult early in the REA process with municipalities and owners/operators of local airports and/or aerodromes to determine if there are any concerns with respect to the impact the project may have on the airport/aerodrome's operations. Proponents should make every effort to mitigate any concerns raised by the public, owner/operator of the airport/aerodrome, and the local municipality. Proponents should also contact the MOE, Environmental Approvals Access and Service Integration Branch to discuss the issues raised and the potential mitigation. Additionally, proponents may be subject to marking and lighting requirements on structures located near airports/aerodromes as determined by Transport Canada. Nav Canada may also notify proponents of any potential of disturbances to the air navigation and/or radar systems and, in some cases, may request the movement of turbines and/or require the airport to alter instrument approaches if there is the potential to affect these systems.

Traffic Management Plans

As discussed at the beginning of section 5, applicants may determine that negative environmental effects that will or are likely to occur from project construction and/or operation related to road capacity and local traffic warrant the preparation of a Traffic Management Plan. Such plans are not a strict requirement for REA applications but may be the only way to adequately describe the effects on local traffic, how the effects will be mitigated and justify conclusions about the significance of negative environmental effects that will or are likely to occur. A Traffic Management Plan will also assist with consultation with the municipality, which may have valuable suggestions regarding the management of traffic based on municipal expertise and knowledge of local traffic issues. It should be noted that the Director has the authority to request that an applicant submit a Traffic Management Plan if one is not provided and the Director is of the opinion that such a plan is needed in order to make a decision with respect to granting a REA. Applicants are encouraged to discuss traffic management with the MOE's Environmental Approvals Access and Service Integration Branch at an early stage in project planning.

Since the content of a Traffic Management Plan is not prescribed by Table 1 of O. Reg. 359/09, the applicant should determine the appropriate content of such a report in order to best support conclusions about negative environmental effects that will or are likely to occur and mitigating measures. An example of the content that could be included is:

- The current traffic flow in the vicinity of the project location;
- The truck or other vehicular traffic proposed during various phases of the project including the number of trucks, timing of use and routing/path of site access;
- A description of how truck timing, routing, or other mitigation measures will be used to minimize impacts to traffic flow and the safety of road users; and
- An evaluation of the net effects on traffic and road safety in light of the mitigation commitments proposed.

Applicants that will be transporting oversize components by road will need to contact the Ontario Provincial Police (OPP) to arrange for a police escort. The contact information for the OPP can be found in Appendix 2.

Stray Voltage Impacts on Livestock from Associated Electrical Distribution Lines

Stray voltage from distribution lines on livestock farms has been found in some circumstances to result in negative effects on the health of livestock as described in the Ontario Energy Board (OEB) discussion paper *"Farm Stray Voltage: Issues and Regulatory Options"* (May 2008, Publication #EB-2007-0709) available at:

http://www.ontarioenergyboard.ca/OEB/_Documents/EB-2007-0709/staff_discussion_paper_20080530.pdf.

While stray voltage can come from a variety of on and off farm sources, under certain circumstances the installation of electrical distribution lines and other electrical equipment as part of a renewable energy project could have the potential to increase stray voltage on a livestock farm.

If an applicant for an REA determines that the proposed project has the potential to contribute to stray voltage on a livestock farm in proximity to the electrical project components, this negative environmental effect should be described in the PDR. The description, if provided, should discuss the likelihood and magnitude of the potential effect in light of the electrical design of the project. For instance, applicants should note in their application all electrical equipment that must be certified by the Electrical Safety Authority to meet the Ontario Electrical Safety Code.

Currently, suspected farm stray voltage issues are investigated by the local distribution company servicing the livestock farm in question since the electrical servicing of the impacted farm is often the most likely outside source of stray voltage. Such investigations are governed by section 4.7 of the OEB Distribution System Code, available at

http://www.ontarioenergyboard.ca/OEB/_Documents/Regulatory/Distribution_System_Code.pdf

If an applicant determines that electrical equipment associated with the project has the potential to cause a stray voltage impact, the EEMP in the Design and Operations Report should describe how the applicant will work with the local distribution company to investigate and remedy any realized impacts.

A good reference for further information on stray voltage can be found on the website of the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) at:

http://www.omafra.gov.on.ca/english/livestock/dairy/facts/strayvol.htm.

5.7. Other Resources

Negative environmental effects that will or are likely to occur related to other resources should also be described in the PDR. These effects should take into consideration the land use depicted on the Project Location Map and any land use changes resulting from the project. Additional examples of resources that may be impacted by a project include, but are not limited to:

- Aggregate resources
- Landfill sites
- Forest resources

If negative environmental effects that will or are likely to occur on the use of other resources are identified, they should be discussed in the PDR.

5.8. Public Health and Safety

Applicants are expected to describe negative environmental effects on public health and safety that will or are likely to occur. In order to make conclusions about the magnitude and likelihood of health and safety effects, key sections of other documents, such as the demonstrated adherence to setback distances for wind facilities and the emergency response and communications plan in the Design and Operations Report, should be referenced.

In light of the ministry's transparent setback standards for turbine siting, REA applicants for Class 3, and 4 wind facilities should indicate how the project will comply with the setback requirements when describing negative environmental effects on public health and safety that will or are likely to occur related to turbines

5.9. Areas Protected under Provincial Plans and Policies

Applicants are also expected to determine if any part of the project location is proposed on land in key provincial land use plans. These plans include the Greenbelt Plan, Oak Ridges Moraine Conservation Plan, Niagara Escarpment Plan, and the Lake Simcoe Protection Plan.

Projects located on land protected by key provincial plans may have additional approval, setback and reporting requirements under O. Reg. 359/09. Examples of these requirements are described on the following page.

Greenbelt Plan

If the proposed renewable energy generation facility is located in the Protected Countryside (other than one entirely on a settlement area) as described in the Greenbelt Plan, the NHA will also assess additional natural features such as sand barrens, savannahs, tallgrass prairies, non-provincially significant wetlands, life science ANSIs and alvars. Natural Heritage setback distances and Environmental Impact Study requirements will apply to these features.

See section 41 of O. Reg. 359/09 for more information on requirements under the REA.

The Ministry of Municipal Affairs and Housing has information on its website related to the Greenbelt plan, including maps, at http://www.mah.gov.on.ca/Page187.aspx.

Lake Simcoe Watershed

If any part of the project location is within the Lake Simcoe Watershed applicants are required to include additional information in the Design and Operations Report. Specifically they must describe project impacts on the shore of Lake Simcoe as well as a description of how the project will be engaged in to maintain the natural contour of the shoreline and use vegetative riparian areas.

See Table 1 of O. Reg. 359/09, Item 4: Design and Operations Report, Column 2, Paragraph 6 for more information on requirements under the REA.

The MOE has information on its website related to the Lake Simcoe Protection Plan, including maps, at http://www.ene.gov.on.ca/en/water/lakesimcoe/index.php.

Niagara Escarpment Plan

If the proposed renewable energy generation facility will be located in the area of the Niagara Escarpment Plan (NEP), applicants must describe the following:

- **The land use designations for the area on which the renewable energy generation facility is proposed to be built**
- **The need to obtain a development permit and an overview of the requirements of such a permit**

If a development permit is required under the NEP, applicants will be required to submit a copy of the permit obtained from the Niagara Escarpment Commission (NEC) as part of their complete REA application.

Applicants should note that in order to make a decision on a development permit application, the NEC may require information other than the information required for the PDR. It is recommended that applicants contact the NEC as early as possible for a complete list of information that will be required. Applicants are also encouraged to set-up a joint meeting with the MOE and NEC, early in the process, to discuss all the requirements for the projects that will be proposed within the NEP area.

Consult section 32 of O. Reg. 359/09 for more information on requirements under the REA.

The NEC has information on its website related to the NEP, including maps, at http://www.escarpment.org/landplanning.

Oak Ridges Moraine Conservation Plan

If any part of the project location is within the area designated as Oak Ridges Moraine Conservation Plan Area, the NHA will also assess additional natural features such as sand barrens, savannahs, non-provincially significant wetlands, life science ANSIs and tallgrass prairies. Natural Heritage setback distances and Environmental Impact Study requirements will apply to these features.

Consult sections 42, 43, 44, 45, and 46 of O. Reg. 359/09 for more information on requirements under the REA.

The Ministry of Municipal Affairs and Housing has information related to the Oak Ridges Moraine Conservation Plan, including maps, at http://www.mah.gov.on.ca/Page1707.aspx.

In addition to the specific requirements related to provincial plans in O. Reg.359/09, applicants should broadly consider the policy intent of the relevant plan when designing their project in a protected area.

Chapter 5

Guidance for preparing the Construction Plan Report

1. Purpose of the Construction Plan Report

The Construction Plan Report is a component of an application for a Renewable Energy Approval (REA) under O. Reg. 359/09. This report is required as part of an application for all renewable energy projects that require an REA with the exception of Class 2 wind facilities (those with name plate capacity greater than 3 kW but less than 50 kW). Due to the relative simplicity of Class 2 wind projects, they only require description in the Project Description Report (PDR).

The purpose of the Construction Plan Report is to describe in sufficient detail the project activities undertaken during the construction phase so that all negative environmental effects that will or are likely to occur may be identified. The report must also describe mitigation measures in respect of negative environmental effects that will or are likely to occur from construction or installation activities.

The Construction Plan Report should contribute to and be consistent with information presented in other reports submitted as part of an REA application. For instance the report is expected to describe the installation of all project components detailed in the Design and Operations Report. As well, the Construction Plan Report should provide details on how construction activities will be planned to mitigate negative environmental effects that will or are likely to occur, which should support conclusions around the significance of negative environmental effects presented in the PDR.

An additional function of the Construction Plan Report is to act as a communication tool for consultation with municipalities, the public, Aboriginal communities, and other interested stakeholders. A draft report must be made available to all municipalities (upper and lower tier) in which the project is located at least 90 days prior to the final public meeting, in accordance with section 18 of O. Reg. 359/09. The public must also be provided with a draft report at least 60 days prior to the final public meeting for the renewable energy project, in accordance with section 16 of O. Reg. 359/09. It should be noted that the following facility classes do not require applicants to hold public meetings:

- Class 2 wind facility;
- Class 1 or 2 anaerobic digestion facility;
- Class 1 thermal treatment facility, if the generating unit of the facility is located at a farm operation; and
- Class 2 thermal treatment facility.

In these cases (except Class 2 wind, which doesn't require a Construction Plan Report), the draft report must be provided to all municipalities (upper and lower tier) at least 30 days prior to submitting an application for an REA.

Applicants should note that construction plans may be of particular interest to municipalities, since these plans could have the potential to impact municipal infrastructure and services. Construction plans should be summarized in the applicant's municipal consultation form either through description on the form or through specific references to the Construction Plan Report.

2. Overview of Construction Plan Report Content

The principal content of the Construction Plan Report is defined in Table 1 of O. Reg. 359/09 and provides a description of the planned construction phase activities, including temporary activities/structures at project locations proposed within setback areas outlined in the REA regulation. This would include a description of:

- Details of any construction or installation activities;
- The location and timing of any construction or installation activities for the duration of the construction or installation;
- Negative environmental effects that will or are likely to occur from construction or installation activities within a 300 metre radius of the activities; and
- Mitigation measures in respect of negative environmental effects that will or are likely to occur.

A Construction Plan Report submitted as part of an application for an REA must contain information on all of the required content.

The structure of the report should be selected by the applicant to provide a clear account of these contents. One approach that could achieve clarity would be to structure the report according to sections that address each of the key required content requirements above. Pertinent sections of other reports, such as the site plan in the Design and Operations Report, can be reprinted or referenced where appropriate.

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3. Description of Construction and Installation Activities

The Construction Plan Report must contain a detailed description of all activities that will occur in order to bring the facility into operation. This should cover the construction and installation of all equipment, roads, transmission/distribution lines, transformers, and other ancillary components proposed to be constructed as part of the project including the construction of associated buildings or structures (a more detailed definition of what is included in a renewable energy project is provided in Chapter 1). The use of maps and figures may assist with providing a clear description of where and how construction and installation activities will be conducted. Activities are project-specific but can include:

- Site preparation;
- Equipment installation and connection; and
- Post-installation activities such as the restoration of vegetation or impacted water bodies.

For each component installed and/or constructed, a number of attributes should be considered in completing the description of activities. These include:

- A description of the materials brought on site (and how they will be transported);
- Equipment used for constructing or installing the project component;
- The timing and operational plan for conducting the construction or installation;
- Whether any land will be affected through a temporary use for the purpose of constructing or installing the component (i.e. construction lay down areas);
- Whether the construction or installation will require a water taking; and
- A description of any materials generated at the site (including waste) during construction and how they will be used/disposed of/transported offsite.

Details on attributes that should be described are provided in the sections that follow.

3.1. Materials Brought on Site

A description of materials needed for constructing or installing the project components should be given. The purpose of providing such a description is to define the scale of the construction and installation activities and to ensure the description of negative environmental effects that will or are likely to occur reflect impacts related to bringing the materials to the site. This could be broken down on a component basis or given as an aggregate description of materials required for the project as a whole. The description should provide, if applicable:

- An estimate of the quantities and types of materials that will be transported onsite for construction;
- The method of transporting the materials, such as by truck, with an estimate of the size and number of trucks;
- The expected overall timeline and operational plan for transporting materials to the site;
- The site locations where materials will be used; and/or
- Any plans to temporarily store materials on-site, including the duration of storage.

3.2. Construction Equipment Used

A description of construction and installation machinery should be provided. This could involve equipment to excavate or grade ground, drill footings, or erect structures such as through the use of cranes. The description should provide:

- The general type of construction equipment expected to be required;
- The approximate size or weight of construction equipment if relevant to describe negative environmental effects that will or are likely to occur;
- The potential for the equipment to emit noise and dust;
- Any chemicals used in the operation of construction equipment including fuel; and
- How the equipment will be brought into and out of the site, if relevant for describing negative environmental effects that will or are likely to occur related to traffic and road infrastructure impacts.

3.3. Timing and Operational Plans

The timing of proposed construction and installation activities must be described. This should indicate:

- The sequence of events of each construction and installation activity including their expected duration;
- The timing with regard to seasons, if such timing may influence negative environmental effects that will or are likely to occur; and
- The time of day that activities will be conducted, if such timing may influence or mitigate the impact of negative environmental effects that will or are likely to occur.

3.4. Temporary Uses of Land

Construction activities may result in temporary changes to land surface or grading as well as the installation of temporary structures such as culverts. This may be due to the construction of temporary access roads or staging areas. Any change to land that occurs during construction and is not reflected in the permanent design of the renewable energy generation facility (i.e. site plan of the Design and Operations Report) should be described. This should include:

- The extent of the affected area;
- A description of the land use prior to construction;
- A description of the temporary land use during construction;
- A description of how the temporary land use is reasonable for the soil conditions of the project location;
- The timing and duration of the temporary change; and
- Activities planned to restore the condition of the land, if any.

Applicants are encouraged to contact the local conservation authority to assess the need for any permissions which may be required as a result of temporary changes to land surfaces, grading or the installation of temporary structures.

The temporary parking area for vehicles owned or used by construction site workers (not including vehicles directly used in the actual construction of the facility, such as a tractor or crane) is not required to be considered as part of the renewable energy generation facility and therefore the project location for the purposes of the REA. Other applicable municipal permits and/or approvals may be required for the temporary parking of construction workers vehicles and each applicant is responsible for obtaining all necessary approvals and making appropriate arrangements.

3.5. Temporary Water Takings

If the proposed construction or installation of a project component includes the taking of water from a ground or surface water source, such as when quantities of ground water are pumped out to facilitate excavation, the water taking should be described. See section 4.3 below for more detail on the information required for water taking and negative environmental effects that will or are likely to occur related to the water taking.

3.6. Materials/Waste Generated at, or Transported from, the Project Location

Some construction activities will result in the generation of materials that have no further use at the project location. This could include aggregates excavated or vegetation removed in respect of installation of a generation facility, among others. Materials may be stored or disposed of on-site or transported offsite. Any materials generated as a result of construction or installation activities should be described, including the following:

- The estimated quantity and type of material generated;
- If stored or disposed of at the project location, an account of how the storage or disposal will be undertaken;
- If transported offsite, the proposed future use or final disposal of the material. If materials excavated are contaminated their disposal may be regulated under Regulation 347 (General – Waste Management), made under the Environmental Protection Act; and
- If transported offsite, the proposed method of transporting the material including an estimate of the type and number of trucks, if relevant.

It should be noted that on-site disposal of waste generated during construction or installation may require an Environmental Compliance Approval (ECA) for waste under Part V of the Environmental Protection Act. If on-site disposal of waste generated during construction or installation of a renewable energy generation facility is proposed, project proponents should contact the Ministry of Environment (MOE) to determine if an ECA is needed for this disposal.

4. Description of Negative Environmental Effects

As required in Table 1 of O. Reg.359/09, the Construction Plan Report must include a description of negative environmental effects that will or are likely to occur as a result of construction or installation of the renewable energy generation facility.

Negative environmental effects that may result from construction will also be included in the description of negative environmental effects for the project in the PDR, as described in section 5 of Chapter 4. Applicants are required to provide this description in both locations to enhance the usability of the REA reports. For instance, the draft PDR generated at earlier stages in the application process will allow for an early discussion of negative environmental effects that will or are likely to occur from construction. This will also ensure that a stakeholder with a specific interest in construction activities, such as a local municipality, will find a complete account of the construction-related impacts in the Construction Plan Report. Cross references to specific information between the PDR and the Construction Plan Report may be used where it would enhance the clarity of the application.

As in the PDR, when describing negative environmental effects in the Construction Plan Report, the likelihood of occurrence and the potential magnitude of the effect should also be given. Conclusions drawn about the significance can be based on proposed mitigation measures the applicant will commit to implementing during construction. If mitigation is proposed, the description of these measures must be included in the Construction Plan Report (see section 5), and reference should be made where appropriate to assist the reader in linking negative environmental effects that will or are likely to occur with related mitigation.

While it is the applicant's responsibility to include all negative environmental effects that will or are likely to occur as they relate to the project, the following sections provide guidance regarding common negative environmental effects during construction.

4.1. Dust and Noise Emissions

Construction activities have the potential to emit contaminants to air. The emission of dust through excavation, drilling or the use of trucks on dirt roads, among others, should be considered for negative environmental effects. Likewise if the operation of heavy machinery could result in noise emissions that may impact neighbouring noise receptors, these emissions should be described. Reference can be made to the Emergency Response and Communications Plan which should provide a description of how the public can report complaints related to noise and dust.

4.2. Destruction of Vegetation

The proposed construction and installation activities may cause the destruction/removal of vegetation. Any destruction or removal of vegetation should be described. This description should depict the areas where vegetation destruction or removal is proposed to occur, as well as describe the nature of the vegetation. While vegetation in significant natural features will be subject to the Natural Heritage Assessment, setback distances and/or the submission of an Environmental Impact Study (as per sections 25 - 27, 38 – 41 and 43 - 45 of O. Reg. 359/09), applicants must still determine appropriate steps to evaluate and mitigate negative environmental effects that will or are likely to occur from destruction of vegetation that is not located in a significant natural feature. Generally, planning construction to minimize destruction and removal of vegetation and to replace impacted vegetation following construction is a recommended approach.

The removal of vegetation may also contribute to other negative environmental effects such as changes to surface water runoff or the production of dust on site. Any removal or destruction of vegetation should also

be reflected in the discussion of these impacts if it may contribute to a negative environmental effect.

If project activities that include the removal of vegetation will occur within the defined setback distances to water bodies (e.g. within 120 m of a lake), the impact of vegetation removal on the water body should be discussed further in the required supplementary report documenting any additional mitigation measures. Applicants should consult Chapter 8 for details on this report.

4.3. Impacts to Water Resources

In the planning of construction activities, applicants should consult the MOE policies for managing the quality and quantity of surface and ground water. These are outlined in the following documents:

> *Water Management Policies Guidelines and Provincial Water Quality Objectives,* 1994 Publication #3303e
>
> *Deriving Receiving Water-based, Point Source Effluent Requirements for Ontario Waters,* 1994 Publication #3302e

Several impacts related to water resources should be considered in the Construction Plan Report, including:

Surface Water Runoff

Construction activities can change land surface properties that may result in a negative environmental effect related to changes in the quantity and quality of surface water runoff. Any activities that alter the surface properties of land or water drainage should be considered as a negative environmental effect that will or is likely to occur. Some examples include:

- Removal of vegetation;
- Impervious surface treatments such as concrete or asphalt;
- Re-grading land; and
- Compacting soils through use of heavy machinery.

If significant negative environmental effects will or are likely to occur from surface water runoff during construction, the applicant may determine that a Storm Water Management Plan is the only way to adequately describe surface water runoff and the efficacy of proposed storm water management facilities used to mitigate impacts. More information on Storm Water Management Plans can be found in section 5.3 of Chapter 4.

Impacts on Water Bodies

Some project components such as roads or transmission/distribution lines may be built in proximity to, or over water bodies. The construction may include temporary culverts, weirs, or diversion of streams, among other things. If such components could negatively affect the water quality and/or quantity, a description of such negative environmental effects is required. For projects where a supplementary report documenting any additional mitigation measures has been prepared, such a report may be referenced to support the description of negative environmental effects that will or are likely to occur as a result of construction and installation activities. Applicants should refer to Chapter 8 of this guide for further information on the supplementary report documenting any additional mitigation measure.

In addition, the construction of project components near water bodies may trigger additional permit requirements from the federal Fisheries and Oceans Canada, as well as the Ministry of Natural Resources (MNR) and/or local conservation authorities. These organizations, where applicable, should be contacted early in project planning to determine the requirements of any additional permits. If such permits will address negative environmental effects described in the Construction Plan Report, they should be referenced.

Impacts related to Water Takings

If a project includes a proposal to take water from a ground or surface water source in order to conduct construction activities, such as when quantities of ground water are pumped from excavated areas, potential impacts on water resources must be described. An important negative environmental effect to consider is the potential for the project to interfere with existing uses of the water resource. If no impacts on water resources are expected as a result of water taking activities, a description of how that conclusion was reached should be provided.

Applicants are recommended to discuss any water takings with the MOE's Environmental Approvals Access

and Service Integration Branch at an early stage in project planning.

To describe water takings under 50,000 L/day, applicants should provide the following information in the Construction Plan Report:

- A description of the water taking (e.g. location, source, quantity etc);
- Any measures proposed to mitigate negative environmental effects that will or are likely to occur; and
- Conclusions about the magnitude and likelihood of negative environmental effects.

It should be noted that while all water takings must be described, for takings that involve small quantities below 50,000 L/day, an applicant may conclude that negative environmental effects that will or are likely to occur are insignificant without preparing technical studies.

For water takings over 50,000 L /day, if the water taking is part of a project subject to the REA, the water taking does not also require a separate Permit to Take Water (PTTW) under the Ontario Water Resources Act. However, the description of water taking in the Construction Plan Report for a REA application should provide the information/assessments that would be normally required in respect of a PTTW application.

When an REA is issued, it is based on the information provided in the REA application submitted by the proponent. Therefore, proponents should carefully consider their water taking needs at the application stage, well in advance of applying for an REA. If a proponent anticipates circumstances where water taking could exceed 50,000 L/day, this should be addressed in their REA application. This will allow the MOE to proactively evaluate water taking needs and to consider what types of conditions to impose in the REA.

If a proponent realizes following the issuance of an REA that more than 50,000 L/day will be needed for the project, it may require an amendment to the REA issued for that facility, which could cause project delays. Please refer to Chapter 10 of this guide for details on the project change process.

If a proponent encounters extraordinary conditions (i.e. an infrequent storm event) following the issuance of the REA that necessitate additional water takings (i.e. construction dewatering) beyond what is permitted under their REA, they are advised to immediately contact the MOE's Environmental Approvals Branch. In this situation, proponents would be expected to provide a description with respect to the additional water taking that specifically describes the proposed measures to prevent impacts to any local water supplies (e.g., by either interfering with existing supplies or inducing mobilization of contaminated groundwater to impact local wells) and how discharge/return flows would be managed to similarly avoid impacts to any water supplies or the natural environment.

Following receipt of this and any other additional information requested by the ministry, the MOE will provide the proponent with direction on how to address the situation, through its existing suite of compliance tools, to allow the project to proceed in a timely manner while maintaining environmental protection.

Applicants should use the following table as a starting point to determine the type of information that will be needed to describe the water taking. This table reflects the categories that apply to PTTW applications according to the MOE publication *"Permit to Take Water (PTTW) Manual"* (2005, Publication #4932e). Applicants proposing water takings should consult this manual for further direction on what type of studies and/or information must be submitted to the ministry in respect of water takings.

<table>
<tr><th>Ground Water – Category 1</th><th>Surface Water – Category 1</th><th>General Requirements</th></tr>
<tr><td>Renewal
(of an existing water taking)</td><td>Renewal
(of an existing water taking)</td><td rowspan="3">Self Assessment</td></tr>
<tr><td>Ponds
(e.g. irrigation and agriculture)</td><td>Ponds less than 1500 cubic meters in volume</td></tr>
<tr><td></td><td>Great Lakes or connecting channel takings less than 1,000,000 L/day</td></tr>
<tr><th>Ground Water – Category 2</th><th>Surface Water – Category 2</th><th>General Requirements</th></tr>
<tr><td>Short-term, non-recurring taking less than 7 days
(e.g. pumping test and hydro-static test).</td><td>Great Lakes or connecting channels takings less than the Great Lakes Charter threshold (19,000,000L/day)</td><td rowspan="6">Engage qualified person to complete screening level evaluation schedules as defined in the PTTW manual</td></tr>
<tr><td rowspan="5">Short-term, non-recurring taking less than 30 consecutive days and less than 400,000 litres/day
(e.g. construction dewatering and dust suppression)</td><td>Takings from sources with previous assessments</td></tr>
<tr><td>River and Streams
(3rd order or higher order)</td></tr>
<tr><td>Transitional Permits</td></tr>
<tr><td>Takings and Returns where water is removed for a short time only</td></tr>
<tr><td>Lakes and Ponds takings less than 1,000,000L/day twice per week</td></tr>
<tr><th>Ground Water – Category 3</th><th>Surface Water – Category 3</th><th>General Requirements</th></tr>
<tr><td>All ground water takings that do not meet Category 1 or Category 2 criteria</td><td>All surface water takings that do not meet Category 1 or Category 2 criteria</td><td>Full Technical Assessment required as defined in the PTTW manual</td></tr>
</table>

** A sensitive feature includes a stream and/or wetland and/or dug well or dugout pond owned by a different person.

4.4. Spills

Fuels and other chemicals (including dry materials) used for construction and installation activities can cause negative environmental effects if they are spilled during fuelling or storage. If the planned construction activities present the potential for fuel spills this should be described. Reference can be made to the Emergency Response and Communications Plans included as a component of the Design and Operations Report.

The Environmental Protection Act places specific duties and obligations on persons with respect to spills. Anyone involved in the construction of a renewable energy project should be familiar with their legal obligations in the event of a spill before beginning construction.

4.5. Impacts on Cultural Heritage (Protected Properties, Archaeological and Heritage Resources)

In preparing a complete REA application, applicants must determine whether there are any protected properties described in Column 1 of the Table in section 19 of O. Reg. 359/09, on the project location. If it is discovered that the project location is on a protected property, applicants must obtain authorizations by the Ministry of Tourism, Culture and Sport (MTCS) related to protected properties prior to beginning construction.

Applicants must also identify what archaeological resources, heritage resources and abutting protected properties are present at the project location through the archaeological and heritage assessment processes. Applicants are encouraged to engage a consultant archaeologist and/or heritage consultant at an early stage in project planning to prepare an archaeological assessment and/or heritage assessment that will consider impacts to cultural heritage resources and provide recommendations for appropriate avoidance or mitigation measures.

Applicants may also choose to self assess for cultural heritage resources by completing MTCS screening checklists:

- *REA Checklist: Consideration of Potential for Archaeological Resources; and*
- *REA Checklist: Consideration of Potential for Heritage Resources*.

Screening should be undertaken early in the application process in order to ensure that archaeological and heritage resources will not be impacted.

If it is discovered that there is potential for heritage and/or archaeological resources through the screening checklists, an archaeological assessment, heritage assessment, or both, must be conducted that recommends appropriate avoidance, mitigation measures, etc., consistent with O. Reg. 359/09 and guidance from the MTCS. Not all renewable energy projects require a heritage assessment. Section 20 of O. Reg. 359/09 outlines the specific conditions that determine if an archaeological assessment is required.

4.6. Impacts on Local Roads and Traffic

The construction phase of a renewable energy project could involve considerable vehicular traffic related to the movement of equipment and materials on and off site. There is potential for negative environmental effects to occur with respect to impacts to the road infrastructure and/or the traffic flow on roads in the vicinity of the project. All negative environmental effects should be described in the Construction Plan Report (and in the PDR, as given in section 5 of Chapter 4).

The applicant may determine that a Traffic Management Plan is the only way to adequately evaluate the impacts on local traffic flow and propose appropriate mitigation measures. A Traffic Management Plan will also assist with consultation with the municipality or municipalities, which may have valuable suggestions regarding the management of traffic based on municipal expertise and knowledge of local traffic issues.

Further guidance on potential content for a Traffic Management Plan is given in section 5.6 of Chapter 4.

5. Mitigation Measures

For each negative environmental effect that will or is likely to result from construction and installation, the applicant is required to describe any mitigation measures proposed. Mitigation measures can include:

- Modifying the types of construction activities engaged in;
- Installation of additional treatment technologies such as those that remediate or contain discharges of contaminates; and/or
- Changing the schedule or operational practices of construction activities.

Any mitigation measures proposed should support conclusions about the magnitude or likelihood of negative environmental effects they are proposed to mitigate. The mitigation measures should be described in sufficient detail so that they can be reviewed by the MOE to determine their adequacy. Where appropriate, applicants are recommended to include details on any risks to the efficacy of a mitigation measure. For instance, a storm event may pose a risk to sediment control measures proposed.

Mitigation measures will also be discussed in consultation with municipalities to determine potential impacts on provision of municipal services. See Chapter 2 for more information on consultation requirements and guidance on preparing the Consultation Report.

The examples below illustrate different approaches to mitigation and the information that could be presented to describe them:

Modification to construction activities

An example of a modification to a construction activity is where horizontal directional drilling is used to install a subsurface transmission/distribution line as opposed to a trench installation. This technique may mitigate impacts on water bodies or natural features under which the line is installed. If such a mitigation measure is proposed, the information required in the Construction Plan Report to describe the measure would include a description of the equipment used for installation and any additional negative environmental effects that will or are likely to occur as a result of the horizontal directional drilling equipment itself.

Treatment technologies

An example of the use of treatment technologies is the use of sediment containment structures such as siltation fencing or storm water management ponds to mitigate negative environmental effects on a water body due to storm water runoff. In this case, the structures/equipment should be defined with respect to their location, technical specifications, and duration of installation. Information on how these structures will be monitored, operated and maintained must also be provided. The report must also describe how any repairs required to address construction-related damage to structures such as storm water management ponds will be made. If the equipment is designed to achieve a performance objective such as a concentration limit, the applicant should describe how the technology will be monitored and maintained to ensure proper function. In some cases, the treatment technologies used for mitigation will be more fully described in a supplementary report documenting any additional

mitigation measures or a Storm Water Management Plan or another report, as applicable. Details of mitigation measures contained in these other reports can be referenced in the Construction Plan Report, where applicable.

Scheduling and operational changes

Examples of how scheduling and operational aspects of construction and installation activities can mitigate impacts include:

- Conducting excavations on days with low wind to prevent dust emissions and using water to control the dust;
- Operating loud machinery during daytime hours only;
- Planning material and equipment deliveries outside of rush hour periods to mitigate traffic flow impacts; and
- Timing construction activities in wildlife habitats to be outside of periods of wildlife use (e.g. breeding period, migratory period).

When describing these measures, the specific criteria for determining the timing of activities should be discussed (e.g. what would constitute a windy day?) and rationale should be given for such determinations.

6. Environmental Monitoring

Environmental monitoring of the identified negative environmental effects that will or are likely to occur from construction should be proposed in addition to the mitigation measures. Where the likelihood of a significant negative environmental effect is low, the applicant may also propose a monitoring approach in lieu of a mitigation measure.

While an Environmental Effects Monitoring Plan (EEMP) is not a specific requirement of the Construction Plan Report, it is a requirement of the Design and Operations Report as described in Table 1 of O. Reg. 359/09. If monitoring related to a negative environmental effect that will or is likely to occur from construction is proposed, the details should be added to the EEMP of the Design and Operations Report. Applicants may consider referencing the Design and Operations Report in the Construction Report Plan where relevant, to describe monitoring.

Any monitoring approach proposed should be described in sufficient detail, including:

- Methodologies to be used;
- Sampling protocols (where and when, quality assurance); and
- Performance objectives used to evaluate effectiveness.

The description should also identify, where applicable, what actions will be taken if monitoring reveals that negative effects are occurring, as well as a contingency plan should mitigation measures fail.

Chapter 6

Guidance for preparing the Design and Operations Report

1. Purpose of the Design and Operations Report

The Design and Operations Report is required as part of a complete submission for all renewable energy projects that require an REA with the exception of Class 2 wind projects (those with name plate capacity greater than 3 kW and less than 50 kW). Due to the relative simplicity of Class 2 wind projects, these only require description in the Project Description Report (PDR).

The Design and Operations Report is the principal document where the details of a renewable energy generation facility are presented. It builds on the PDR by defining:

- The exact site plan;
- The design of the facility and the equipment tobe used;
- How the facility will be operated;
- How environmental effects will be monitored and mitigated; and
- How emergencies and communications will be managed.

The contents of the report should support the description of negative environmental effects that will or are likely to occur presented in the PDR.

It should be noted that when completing the Design and Operations Report it is the applicant's responsibility to demonstrate compliance with the regulation. The manner in which a project meets the specific requirements that pertain to it must be clearly conveyed in the figures, tables, and text of the report. In addition to this, it is the applicant's responsibility to ensure all information provided is accurate. If elements of the report are found to be unclear or inaccurate, this may form the basis of the Ministry of Environment (MOE) determining the application to be incomplete, requesting further reports or not approving the project.

An additional function of the Design and Operations Report is to act as an information tool for municipal, public and Aboriginal consultation. A draft report must be made available to all municipalities (upper and lower tier) in which the project is located at least 90 days prior to the final public meeting in accordance with section 18 of O. Reg. 359/09. The public must also be provided with a draft report at least 60 days prior to the final public consultation meeting for the renewable energy project in accordance with section 16 of O. Reg. 359/09. It should be noted that the following facility classes do not require applicants to hold public meetings:

- Class 2 wind facility;
- Class 1 or 2 anaerobic digestion facility;
- Class 1 thermal treatment facility, if the generating unit of the facility is located at a farm operation; and
- Class 2 thermal treatment facility.

In these cases (except Class 2 wind, which doesn't require a Design and Operations Report), the draft report should be provided to all municipalities (upper and lower tier) at least 30 days prior to submitting an application for an REA.

Upon submitting a complete application, the final copy of the Design and Operations Report must be posted to the applicant's website, if one exists, within 10 days of a proposal notice being posted to the Environmental Registry as required by section 15.1 of O. Reg. 359/09. See section 10.3.1 of Chapter 1 for more information on this requirement.

1.1. Outline of Report Contents

Specific content required for a complete Design and Operations Report is given in Table 1 of O. Reg. 359/09. For reference, the pertinent rows of the table are reprinted in section 10 of this Chapter. While the structure of the Design and Operations Report is at the applicant's discretion, the following key components must be incorporated:

1. Site Plan
2. Facility Design Plan
3. Facility Operational Plan
4. Environmental Effects Monitoring Plan (EEMP)
5. Emergency Response and Communications Plans

Whatever structure is chosen to organize these contents, the report must be clear and contain all required information.

1.2. Chapter Organization

The guidance provided in this Chapter is organized according to the key report components listed above. Sections 2, 3, and 4 describe what should be included in the site plan, facility design plan, and facility operations plan. Section 5 then provides additional detail on project activities that require specific direction, including water takings, sewage/storm water management, discharges to air, and waste and biomass management equipment. Section 6 provides additional information on technology-specific considerations in preparing the site plan, facility design plan, and facility operations plan. Sections 7 and 8 describe the EEMP, and the Emergency Response and Communications Plans, respectively. Section 9 provides additional considerations if the project is located in a specified land use planning area.

1.3. Integration of Additional Reports

Depending on the type of renewable energy project and the details of the proposal, additional reports may be required for a complete REA application. These reports include:

- Archaeological Assessment Report
- Effluent Management Plan Report
- Emission Summary and Dispersion Modelling Report
- Environmental Impact Study Report
- Heritage Assessment Report
- Hydrogeological Assessment Report
- Natural Heritage Assessment Report
- Noise Study Report
- Odour Study Report
- Property Line Setback Assessment Report
- Water Assessment Report
- A supplementary report documenting any additional mitigation measures when encroaching on the setbacks described in subsections 39 (2) and 40 (2)
- Wind Specification Report

The required content of the additional reports is outlined in various sections and Table 1 of O. Reg. 359/09. Guidance on preparing these reports is contained in Chapter 9 of this Guide. Although these reports are not contained within the Design and Operations Report, they will contain details that contribute to its content. For instance, the description of natural features required in the site plan may be contained in a Natural Heritage Assessment (NHA). To create a cohesive application package and to facilitate its timely review and processing, applicants are encouraged to summarize and reference work done in additional reports to fulfil the requirements of the Design and Operations Report where applicable.

2. Site Plan

The Design and Operations Report must contain scaled diagrams of the site with project equipment and other relevant features indicated. Although this chapter refers to site plan in the singular, for many projects it will be necessary to include multiple site plan diagrams to clearly describe the project.

The site plan builds upon the conceptual map contained in the PDR. The conceptual map in the PDR shows where the project is located and lands within 300 m of the project location. The site plan in the Design and Operations Report provides greater detail of the specific location and extent of all components of the renewable energy generation facility. All proposed components of the facility must be clearly shown along with any relevant features adjacent to the project location (such as natural features and water bodies) that are subject to siting requirements in O. Reg. 359/09.

2.1. Site Plan Format

The site plan should be presented so that it is clear to read and evaluate. To do this, the applicant should consider the following:

- All diagrams, plans or maps must be drawn to scale and include a scale bar and a north arrow.
- The diagrams must be dated and include the name of the project.
- The scale should be selected to demonstrate compliance with the requirements of O. Reg. 359/09. This may be achieved by using multiple maps or insets as necessary.
- A colour/demarcation scheme should be selected that allows all plan features to be observed and delineated clearly.
- If aerial photos or satellite imagery are used in a site plan, the date the image was collected and its source should be referenced.
- Electronic versions of site plans should be created using a software format that allows for the plan to be read clearly. If this poses challenges for the applicant, the applicant can submit a hard copy version for ministry evaluation.
- Tables should be appended and referenced in the site plan.

Site plans are important technical documents but are not considered engineering drawings.

For general context, a site plan must include maps or diagrams that provide the topographical land contours and surface water drainage for all land within 120 m of the project location. It is recommended that land uses within 120 m of the project should also be shown in one or more of the maps or diagrams.

Every significant feature that is shown in the site plan, including project components, cultural heritage (note that the location of an archaeological site is sensitive information and therefore only the general location of an archaeological site should be indicated on the site plan), natural features, and water bodies should also be described in other sections of the Design and Operations Report.

There are certain features that must be depicted on the site plan for all renewable energy generation facilities. These include facility components, cultural heritage, natural heritage, water bodies, and noise/odour receptors.

2.2. Facility Components

The components that comprise a renewable energy generation facility under O. Reg. 359/09 are defined in the regulation and key definitions are also presented in Chapter 1. All components of a renewable energy generation facility must be depicted in the site plan, including:

- Any buildings or structures;
- Any transportation systems, such as roads, established solely to provide access for construction or operation of the facility and not open to any other public use;
- Any roads or water crossings on Crown land, established to provide access for construction or operation of the facility (including those which may be open to other public use); and

- Electrical transmission/distribution lines, transformers, and other electrical equipment associated with the facility. This should include any rights of way or easements required for these components as well.

In addition to these general facility components, applicants must specify on the site plan the location of the following:

- Any roads, utility corridors, rights of way, and easements situated within 300 metres of the project location;
- Ground water wells, water bodies, and infrastructure related to water and sewage;
- Any things that discharge contaminants to the air such as flares, vents and stacks;
- Any works that collect, transmit, treat, or dispose of sewage related to the project; and
- Any areas where waste, biomass, source separated organics or farm material are stored, handled, processed or disposed of.

The site plan should be depicted in sufficient detail to show the external boundaries of all components as proposed. For instance, a location where a wind turbine is to be installed should be depicted in sufficient detail so that the outer extent of the turbine staging area and any access roads can be defined.

O. Reg. 359/09 contains a number of provisions that define distances for site investigation and for setbacks from natural features and water bodies that reference distance to the "project location" which is defined as:

> *A part of land and all or part of any building of structure in, on or over which a person is engaging in or proposes to engage in the project and any air space in which a person is engaging in or proposes to engage in the project.*

More information on the interpretation of the "project location" can be found in Chapter 1, including specific examples.

The locations of the facility components in the site plan should be provided in a way that will clearly demonstrate the boundary of the project location so that the application can be evaluated with respect to compliance with setback and other provisions of O. Reg. 359/09.

2.2.1. Associated Transformers

One project component that requires specific consideration in the site plan is associated transformers which operate at a nominal voltage of 50 kV or more. Section 35 of O. Reg. 359/09 requires that all transformers 50 kV or greater be sited to mitigate noise impacts on noise receptors. This can include meeting minimum setback distances from noise receptors (1000 m, or 500 m if shielded with an acoustic barrier with a density of at least 20kg/m2 that breaks the line of sight with any noise receptors, as defined in section 35 of O. Reg. 359/09) or by conducting a noise study to demonstrate that the transformer meets noise guidelines. No matter which option is used to comply with the regulation, the location of all transformers must be shown clearly in the site plan with Universal Transverse Mercator (UTM) coordinates. Setback distances between the transformer and the nearest noise receptor should be noted directly on the site plan and/or through appended tables.

2.3. Cultural Heritage

Prior to drafting the Design and Operations Report, applicants should determine if any of the following cultural heritage resources are present: protected properties, heritage resources, and archaeological resources, as required by sections 19 - 23 of O. Reg. 359/09.

The location of any identified protected properties or heritage resources must be depicted in the site plan. Note that the precise location of archaeological resources is sensitive information and therefore only the general location of an archaeological site should be indicated on the site plan.

All REA applicants must determine if the project is located on a protected property. If an applicant determines that there are no protected properties at the project location, a written summary of the matters considered in making this determination must be included within this section of the Design and Operations Report. For instance, this summary should indicate the agencies contacted and summarize what information was provided. Note: For Class 2 wind projects this written summary must be included in the PDR.

Projects Prescribed Under Section 20 of O. Reg. 359/09

If, after considering the criteria included in section 20 of the regulation, an applicant determines that the project location does not meet any of the criteria, they must prepare and include a written summary stating this conclusion and the rationale used to arrive at it within this section of the Design and Operations Report. Note: For Class 2 wind projects this written summary must be included in the PDR.

All other Projects subject to the REA

If, after considering the criteria in the checklists issued by the Ministry of Tourism, Culture and Sport (MTCS), as applicable, an applicant determines that there is low potential for archaeological resources and/or there is low potential for heritage resources to be present and that there are no abutting protected properties, they must prepare and include a written summary of the matters that were considered in completing the checklist(s) within this section of the Design and Operations Report.

The checklists issued by the MTCS:

- REA Checklist: Consideration of Potential for Archaeological Resources; and
- REA Checklist: Consideration of Potential for Heritage Resource,

are available on the ministry's website: www.mtc.gov.on.ca/en/heritage/renewable_energy.

Applicants are encouraged to refer to the MTCS's *"Cultural Heritage Resources: An Information Bulletin for Projects Subject to Ontario Regulation 359/09 – Renewable Energy Approvals"* for more information on cultural heritage requirements of O. Reg. 359/09.

2.4. Natural Heritage

Where an NHA is required to identify and evaluate natural heritage features in the vicinity of the project location, it should be conducted prior to drafting the site plan in the Design and Operations Report. Guidance for conducting an NHA is presented in the *"Natural Heritage Assessment Guide for Renewable Energy Projects"* from the Ministry of Natural Resources (MNR).

Natural features found through the NHA should be depicted in the site plan. This depiction should show the boundary of the feature that is closest to the project location and note the distance between the project location boundary and the boundary of the natural feature. If practical, the project location and natural feature boundary points used in determining the closest distance should be given as UTM coordinates. This information could also be included in tables, especially where multiple natural features have been identified near the project location. Where an Environmental Impact Study will be submitted to justify locating the project within the setback requirements that relate to natural heritage, applicants are encouraged to note and reference such a study on the site plan and/or appended tables.

While an evaluation of significance conducted as part of the NHA may determine that an identified natural feature is not a significant feature and thus not subject to setback requirements, applicants are strongly encouraged to include all natural features in the site plan. Creating site plans with detailed information about the area in the vicinity of the project location will enhance consultation and the evaluation of negative environmental effects that will or are likely to occur.

2.5. Water Bodies

A water assessment should also be conducted to identify and evaluate water bodies in the vicinity of the project location prior to drafting the site plan in the Design and Operations Report. Guidance for conducting a water assessment is described in Chapter 8 of this guide.

If any water bodies are found in the vicinity of the project location through the water assessment, they must be depicted in the site plan. This depiction should show the boundary of the water body (the high water mark) and note the distance between the project location boundary and the nearest point of the water body. If practical, the project location and water body boundary points used in determining the closest distance should be given as UTM coordinates. This information could also be included in tables, especially where multiple water bodies have been identified near the project location. Where a supplementary report documenting any additional mitigation measures will be submitted to justify locating the project within

the setback requirements that relate to water bodies, applicants are encouraged to note and reference such a study on the site plan and/or appended tables.

2.6. Noise/Odour Receptors

Some renewable energy projects emit noise and/or odour which may impact neighbouring land uses. The site plan must include any noise or odour receptors that may be negatively impacted by the proposed project.

Noise receptors are defined in O. Reg. 359/09 as the centre of buildings used as dwellings or those used as an educational facility, day nursery, or place of worship. Examples of buildings that the MOE would consider dwellings include residences, hospitals, hotels/motels, and nursing/retirement homes. Public or privately owned campsites or campgrounds that provide overnight accommodation are also included in the definition of noise receptors.

Since there is a range of uses of buildings that may or may not be interpreted to fit the definition of a dwelling, further guidance on this interpretation is provided in section 2.2 of Chapter 3. Chapter 3 also provides information on how noise receptors should be identified on vacant lots, as well as on Crown Land. It is recommended that all REA applicants read section 2.2 of Chapter 3 prior to completing a site plan in the Design and Operations Report so that noise receptors are identified and located appropriately.

In addition to the existing buildings described above, those that are planned for construction and have been issued a building permit under the Building Code Act, 1992 or site plan approval under the Planning Act are also considered to be noise receptors. There are timing restrictions that pertain to the consideration of building permits as noise receptors and these are discussed in section 2.5 of Chapter 3.

Noise receptors on land owned by a proponent of a wind energy facility or by someone who has entered into an agreement and all or part of the facility is constructed on a parcel of their land are not considered noise receptors for the purposes of determining noise setbacks. Entering into an agreement with a landowner to lease the land on which a dwelling is located adjacent or nearby the proposed project location does not exempt proponents from considering these noise receptors for the purposes of determining noise setbacks. Further, it should be noted that temporary construction is not considered a noise receptor for these purposes.

Odour receptors include all structures defined as noise receptors and some additional receptors. These are:

- A portion of property that is used for recreational purposes but is not accessory to a building or structure used for overnight accommodation;
- A portion of property used for commercial activity;
- A community centre; and
- A health care facility.

Determining the scope of noise and odour receptors to include in the site plan is guided by technology-specific setbacks described in O. Reg. 359/09. Compliance with all setback requirements must be demonstrated through descriptions, tables, maps or diagrams in the site plan. A recommended approach for wind turbine setbacks to noise receptors is to include tables with UTM coordinates of all turbines and noise receptors. See section 6.2 for more technology-specific guidance for wind projects.

3. Facility Design Plan

The facility design plan is the section of the report that describes the types, sizes, and design of proposed facility components. While the site plan shows the geographical layout of the facility, the design plan provides schematic diagrams and technical descriptions of the facility components. The focus of these conceptual plans and descriptions should be to detail attributes of the project that will or are likely to cause negative environmental effects identified in the PDR. For environmental effects that have been addressed by adhering to setback distances

(for instance, avoiding development of a solar project within 50 m of a significant natural feature), this mitigation approach should be noted. The facility design plan is paired with the operations plan, which details how equipment and processes will be operated during the life of the project and how operation may impact the environment.

The conceptual plans, specifications and descriptions in the facility design plan should indicate:

- Dimensions and design drawings of all electrical generation equipment.
- Proposed generation equipment supplier, make and model numbers, and specifications, as applicable. This may be achieved by including specification reports from equipment suppliers as an appendix; however it is important that this information be presented in a manner that allows the MOE to evaluate negative environmental effects that will or are likely to occur.
- A description of how all functional components are connected/used to generate and transmit electricity to the grid.
- The nature of the structural components that support the equipment such as foundations and footings.
- For electrical transmission/distribution equipment: electrical specifications, type of line (above ground, buried line), and proposed dimensions of all equipment.
- For associated transformers: electrical conversion specifications, dimensions, a diagram of each transformer including any acoustic barriers, and if acoustic barriers are proposed the materials of construction, density, and dimensions of the barriers.
- Where specifications for equipment are given, a description of the potential variability in stated parameters, particularly if changes in such parameters have the potential to affect the evaluation of negative environmental effects.

The facility design plan must also describe equipment related to any water takings, sewage/storm water management, air discharges, and waste and biomass management. Guidance for describing these features is given in section 5 below.

4. Facility Operations Plan

The operational plan for a renewable energy project describes the daily function of the facility in generating electricity and any planned maintenance or ancillary activities that will occur continuously or intermittently over the course of the project life. The plan should emphasize how operations may contribute to or mitigate negative environmental effects that will or are likely to occur. It should also include a discussion of site supervision and staff training.

The content of the operations plan will depend on the renewable energy technology and specific activities such as water takings, sewage treatment, air discharges, or waste handling. While solar and wind projects may have simple operating regimes, some bio-energy projects will have more complex processes to describe.

Section 5 below provides guidance on how to address key process features that may occur during operation of a renewable energy generation facility.

5. Guidance for Key Process Features

5.1. Water Taking

If a project includes a proposal to take water from a ground or surface water source during ongoing operation of the facility, the water taking must be described regardless of the quantity of water that is proposed to be taken. Examples of ongoing water taking that may be proposed include:

- Water takings to supply facilities operations and processes, for example cooling water. This water taking may be relatively continuous and long term.
- Water taking for intermittent and/or periodically scheduled site maintenance, for example: cleaning solar panels, other wash water use, landscape watering/irrigation, and for site dust suppression.

While the PDR will include a description of negative environmental effects that will or are likely to result from water takings, the Design and Operations Report should provide all the details required to substantiate conclusions about the significance of effects. An important environmental effect to consider is the potential for the project to interfere with existing uses of the water resource. If no impacts on water resources are expected as a result of water taking activities, a description of how that conclusion was reached should be provided.

Applicants are recommended to discuss any water takings with the MOE's Environmental Approvals Access and Service Integration Branch at an early stage in project planning.

To describe water takings 50,000 L/day or less, applicants must provide the following information in the Design and Operations Report:

- A description of the water taking (e.g. location, source, quantity etc);
- Any measures proposed to mitigate negative environmental effects that will or are likely to occur; and
- Conclusions about the magnitude and likelihood of negative environmental effects.

It should be noted that while all water takings must be described, for takings that involve small quantities 50,000 L/day or less, an applicant may conclude that negative environmental effects that will or are likely to occur are insignificant without preparing technical studies.

For water takings over 50,000 L/day, if the water taking is part of a project subject to the REA the water taking does not require a separate Permit to Take Water (PTTW) under the Ontario Water Resources Act (OWRA). However, the description of water taking in the Design and Operations Report for a REA application should provide the information/assessments that would be normally required in respect of a PTTW application.

When an REA is issued, it is based on the information provided in the REA application submitted by the proponent. Therefore, proponents should carefully consider their water taking needs at the application stage, well in advance of applying for an REA. If a proponent anticipates circumstances where water taking could exceed 50,000 L/day, this should be addressed in their REA application. This will allow the MOE to proactively evaluate water taking needs and to consider what types of conditions to impose in the REA.

If a proponent realizes following the issuance of an REA that more than 50,000 L/day will be needed for the project, it may require an amendment to the REA issued for that facility, which could cause project delays. Please refer to Chapter 10 of this guide for details on the project change process.

If a proponent encounters extraordinary conditions (i.e. an infrequent storm event) following the issuance of the REA that necessitate additional water takings (i.e. construction dewatering) beyond what is permitted under their REA, they are advised to immediately contact the MOE's Environmental Approvals Branch. In this situation, proponents would be expected to provide a description with respect to the additional water taking that specifically describes the proposed measures to prevent impacts to any local water supplies (e.g., by either interfering with existing supplies or inducing mobilization of contaminated groundwater to impact local wells) and how discharge/return flows would be managed to similarly avoid impacts to any water supplies or the natural environment.

Following receipt of this and any other additional information requested by the ministry, the MOE will provide the proponent with direction on how to address the situation, through its existing suite of compliance tools, to allow the project to proceed in a timely manner while maintaining environmental protection.

Applicants should use the following table as a starting point to determine the type of information that will be needed to describe the water taking. This table

reflects the categories that apply to PTTW applications according to the MOE publication *"Permit to Take Water (PTTW) Manual"* (2005, Publication #4932e). Applicants proposing water takings should consult this manual for further direction on what type of studies and/or information must be submitted to the ministry in respect of water takings.

Ground Water – Category 1	Surface Water – Category 1	General Requirements
Renewal (of an existing water taking)	**Renewal** (of an existing water taking)	**Self Assessment**
Ponds (e.g. irrigation and agriculture)	**Ponds** less than 1500 cubic meters in volume	
	Great Lakes or connecting channel takings less than 1,000,000 L/day	
Ground Water – Category 2	**Surface Water – Category 2**	**General Requirements**
Short-term, non-recurring taking less than 7 days (e.g. pumping test and hydro-static test).	**Great Lakes** or connecting channels takings less than the Great Lakes Charter threshold (19,000,000L/day)	**Engage qualified** person to complete screening level evaluation schedules as defined in the PTTW
Short-term, non-recurring taking less than 30 consecutive days and less than 400,000 litres/day (e.g. construction dewatering and dust suppression).	**Takings from sources with previous assessments**	
	River and Streams (3rd order or higher order)	
	Transitional Permits	
	Takings and Returns where water is removed for a short time only	
	Lakes and Ponds takings less than 1,000,000L/day twice per week	
Ground Water – Category 3	**Surface Water – Category 3**	**General Requirements**
All ground water takings that do not meet Category 1 or Category 2 criteria.	All surface water takings that do not meet Category 1 or Category 2 criteria	**Full Technical Assessment** required as defined in the PTTW manual

Further guidance on how the description of water takings can be incorporated into the key components of the Design and Operations Report is given below.

Site Plan

The locations of all water takings must be noted in the site plan, including those proposed only during construction. The purpose of including water takings during construction is to ensure the site plan can be referenced from other reports and provide a complete picture of project activities.

Facility Design Plan

The design of proposed equipment used to take water should be described. This includes all pumps, piping and other ancillary equipment such as flow monitoring and control devices related to the water taking.

Facility Operations Plan

If engaging in the proposed project will require the taking of water from the ground or surface water, information must be provided to describe the water taking. This includes a complete inventory of the proposed water takings associated with the operation of the facility, specifying:

- Times
- Durations
- Rates
- Quantities

In conjunction with this inventory, an assessment must be undertaken to ensure the quantities proposed will be available to meet expected demand and to assess the potential for the water takings to interfere with existing uses of the water resource.

5.2. Sewage/Storm Water Management

Applicants should always consider how water can be conserved as well as how wastewater and storm water can be reduced at the source through reuse and low impact development practices when designing renewable energy facilities. However, some renewable energy projects will generate sewage or storm water runoff or have the potential for accidental oil spills from electrical substations that must be managed to prevent negative impacts on the environment. For this reason, project proponents may need to include plans to build sewage works to mitigate environmental risks. There is a range of potential treatment systems that may be contemplated, including but not limited to:

- A simple leachate collection scheme from biomass storage areas for direct addition to an on-farm anaerobic digester;
- A series of swales to direct storm water runoff from a solar facility to a municipal drain;
- A complete secondary treatment system to treat effluents generated from a large-scale thermal treatment facility; and
- An oil spill containment area and associated sewage works for transformer substations.

If the collection, transmission, treatment, or disposal of sewage, the management of storm water or the provision of sediment control on an ongoing basis (not simply in the construction phase) is required as part of a renewable energy generation facility, then the Design and Operations Report must describe these activities/works.

For applicants who are planning sewage works or storm water management measures, it is advised that they first determine if the project requires the preparation of the Effluent Management Plan Report, Hydrogeological Assessment Report, and/or the Surface Water Assessment Report as given by the inclusion criteria in column 3 of Table 1 of O. Reg. 359/09. The reports will provide some of the details to describe the needed collection and treatment. The Design and Operations Report should summarize and refer to elements of these reports that contribute to the facility design plans.

Erosion and Sediment Control

Storm water runoff during construction and operation of a renewable energy generation facility contributes to erosion of the soil at the project location and transport of significant sediments to a receiving water or adjacent property. Planning and ensuring erosion and sediment control measures are properly designed, installed, and maintained are an important part of the design, operation, and maintenance of a renewable energy project to prevent impacts on the environment. However, there will be no need to treat any sewage or runoff on the site, if there is:

- no alterations of the existing drainage area;
- no significant modification of runoff coefficient;
- no process water, sanitary services, or large storm water management facilities required for the long-term operation of the facility; and
- the increase in imperviousness of project area due to the installation of the wind turbines, solar panels, inverters, transformers, electrical substations, and access roads, are considered negligible.

The only concern for potential contamination of water resources are during: (a) construction for erosion and sediment control, as well as for slurry management during directional drilling for installation of transmission lines; and (b) long term operation of the facility for spill containment from the electrical transformer substation(s). Directional drilling requires slurry, bentonite and/or polymer to be used. Applicants must ensure that slurry is contained, recycled and/or managed for off-site disposal. For projects that have a transformer electrical substation, applicants must

ensure that they include a spill containment facility in the Design and Operations Report.

Applicants are encouraged to consider the industry's Best Management Practices for the erosion and sediment control plan that is typically required in the Design and Operation Report, including but not limited to the following:

- a light duty sediment fence made of filter fabric (i.e. no plastic-braided fencing) to be placed around the work area. The fencing shall be secured along the base by digging in the filter fabric and backfilling with earth to grade, to prevent sediment runoff from flowing. A double fence with a row of hay bales should be installed on the overland draining area installed in a shallow (approx. 5 cm) trench packed tightly together;
- a light duty sediment fence made of filter fabric along the base of all spoil piles to prevent sediment runoff from entering ditches; and
- rock check dams and/or hay bales should be installed in project-affected drainage ditches to entrap sediments.

Applicants are advised to have a specialized person oversee the erosion and sediment control measures, to ensure they are being implemented effectively and to apply further actions if needed. Clearly, the close supervision of the implementation works provides opportunities for effective erosion and sediment controls. Applicants are encouraged to:

- repair, replace or install additional erosion control measures if sedimentation is observed; and
- have a qualified professional conduct weekly inspection of erosion control devices during the pre and construction phases and at final stabilization and restoration phase.

Although the sewage works or storm water management measures included in a renewable energy generation facility are governed by an REA and exempt from approval under the OWRA, the MOE will assess sewage works or storm water management measures in a manner that is consistent with how these works/ measures would be evaluated as an application for an Environmental Compliance Approval (ECA) under the OWRA. Therefore, the information required in the Design and Operations Report should be guided by ministry publications that address the application for an ECA for sewage works and storm water management. The MOE has published guidance and manuals, as updated from time to time, to describe the information requirements and to suggest recommended design strategies. They are:

"Water Management Policies, Guidelines and Provincial Water Quality Objectives," 1994 Publication #3303e

- Describes the policies and guidelines for managing the quality and quantity of surface and ground water including provincial water quality objectives and provides a starting point for establishing wastewater effluent requirements. Used to assess ambient water quality conditions, infer use impairments and assist in assessing spills.

"B-1-5 Deriving Receiving Water Based, Point Source Effluent Requirements for Ontario Waters," 1994 Publication #3302e

- Describes the methods for deriving receiving water-based requirements for discharge into waters bodies.

"Guide to Applying for an Environmental Compliance Approval," 2012 Publication #8527e

- Describes the approval process and the requirements for obtaining an ECA. This guide may be amended from time to time. Applicants are required to use the most recent Guide.

"Design Guidelines for Sewage Works," 2008 Publication #6879e

- For information on recommended design guidelines for sewage works such as sewers and sewage treatment plants.

"Stormwater Management Planning and Design Manual" 2003 Publication #4329e

- For information on approaches to manage storm water through facility design and installation of storm water management equipment.

These publications do not contemplate applications to the REA and while they provide necessary guidance they should be read in consideration of their intended context.

Electrical Transformer /Substation Oil Spill Containment

For applicants planning sewage works or storm water management measures for wind, solar and biomass facilities not discharging to municipal sewer and storm water systems, it is recommended to address

the potential for oil /lubricant spills and potentially contaminated storm water from transformer substations.

Transformer substations can contain numerous pieces of electrical equipment filled with insulating transformer oil, hydrocarbons, gearbox oil and grease. In accordance with item 4 (vi) of Table 1 in O. Reg. 359/09, where the project includes a transformer substation, a description of spill containment works facilities as well as equipment and measures to prevent spills and mitigate their impacts is required in the Design and Operations Report. This information is not required for small solar inverters or transformers. Electric utilities have specific procedures for spill response. These procedures include notification, spill containment, soil sampling, soil and free liquid removal switch yard vegetation and asphalt/concrete/stone cleaning or removal and spill site restoration requirements. It is usually during maintenance activities when potential spills may occur. These wastes are temporarily stored in spill proof containers with secondary containment until they can be removed from the site. Any waste must be managed in accordance with Ontario Regulation 347 (General – Waste Management) and disposed of at an appropriately certified waste disposal facility.

The MOE has a standard requirement of having sewage works to manage oil/lubricant spill containment facilities. The standard requirement includes having a system capable of meeting the objective of 15 mg/L concentration of oil and grease on any potential effluent. It is also required to provide up to 24 hours response time under adverse weather conditions to get pumping and cleanup equipment to the site without the danger of material loss to the environment. When considering sewage works for oil spill containment and control, the MOE recommends the following standard engineering practices:

- An oil/lubricant spill containment area serving the transformer with a minimum volume equal to the volume of transformer oil and lubricants plus the volume equivalent to providing a minimum 24-hour duration, 50-year return storm capacity for the storm water drainage area around the transformer under normal operating conditions. This containment area shall have:
    - an impervious floor with walls usually of reinforced concrete or impervious plastic liners allowing for a freeboard of 0.25 metres terminating approximately 0.30 metres above grade and crushed stoned filled within and sloped floors leading to an oil control device; or
    - a permeable floor with impervious walls and subsurface drainage for monitoring purposes with the use of a polymer-based oil absorbent material, designed with a perimeter berm of 0.30 metres, as needed, to prevent external storm water runoff from entering the containment area and have a minimum of 300mm layer of crushed stoned within.
- An oil control device, equipped with an oil detection system and appropriate sewage appurtenances as necessary, such as but not limited to: sump, pump out manhole, submersible pumps, level controllers, floating oil sensors, etc., that allows for batch discharges or direct emergency discharges and for proper implementation of a monitoring program. Usually, for isolated wind/solar facilities with small transformers not draining to municipal sewage systems, the use of the oil absorbing filter canister such as an Imbiber Bead Unit, or equivalent, is a preferred option.
- A clean storm water outlet draining from the containment facility.

Site Plan

The locations of all sewage works and storm water management measures must be depicted in the site plan.

Facility Design Plan

The facility design plan must provide a description of any works for the collection, transmission, treatment and disposal of sewage including details of any sediment control features, storm water management facilities and secondary oil containment areas. Sewage works and storm water management measures in the facility design plan should be designed in accordance with the guidance contained in other ministry documents as referenced above.

Facility Operations Plan

The operational plan contributes to the description of facility design by detailing the operational matters including:

- Expected quantities of sewage/storm water collected, treated or discharged;
- The flow rates and times/duration (if intermittent) of sewage collection and treatment;
- Concentrations of key contaminants in sewage or storm water at various points in the collection/ treatment system;

- Oil/lubricant spill containment areas with its contingency plan and emergency protocols;
- Calculations demonstrating the basis for the expected quantity/quality of sewage or storm water. Calculations should also be included to show how the quantity and quality of sewage/storm water supports the design parameters of any treatment equipment;
- The make and design specifications of any commercially available equipment for treating sewage or storm water proposed for use at the facility;
- Procedural aspects of operating or maintaining any of the equipment including details on any measurements taken in respect of process control;
- Any chemical inputs required in respect of a sewage or storm water treatment process. For any chemicals that have the potential to be emitted to the environment, the Material Safety Data Sheets of the chemicals should be included; and
- The derivation of any by-products or residual wastes as a result of a treatment process including how such by-products will be managed.

In addition to this suggested content, applicants should include any operational details that they determine to be relevant for evaluating negative environmental effects that will or are likely to occur as a result of the project.

5.3. Discharge of Contaminants to Air

Renewable energy generation facilities may have equipment that discharges contaminants to the air. Examples of this include, among others:

- Flares at anaerobic digestion facilities;
- Combustion unit stacks at a biomass thermal treatment facility;
- Stacks used to discharge exhaust from large heating units for a maintenance or storage of equipment at a wind farm;
- A biofilter treating odour or other air contaminants from a biomass storage area; and
- A generating unit emitting noise.

All the components of the facility that discharge contaminants to the air must be described in the Design and Operations Report.

For some bio-energy facilities, the project will specifically require the preparation of an Emissions Summary and Dispersion Modelling Report (ESDM Report) as per the requirements listed in Table 1 of O. Reg. 359/09. If a facility requires such a report, the Design and Operations Report can reference sections of the report that describe the relevant equipment. At the minimum, information provided to describe the air discharge must be sufficient to allow for the calculations included in the ESDM Report. An ESDM Report must be prepared in accordance with section 26 of O. Reg. 419/05 (Air Pollution – Local Air Quality) under the Environmental Protection Act. Applicants should refer to the following MOE publications for further guidance on ESDM Reports:

> *"Guideline A-10: Procedure for Preparing an Emission Summary and Dispersion Monitoring (ESDM) Report," 2009 Publication #3614e03*
>
> *"Guideline A-11: Air Dispersion Modelling Guideline for Ontario," 2009 Publication #5165e02*
>
> *"Technical Bulletin: Methodology for Modelling Contaminants with 10-Minute Average Standards and Guidelines under O. Reg. 419/05," 2008 Publication #6700e*

Site Plan

The location of any project components that discharge contaminants to air must be included in the site plan.

Facility Design Plan

The purpose of this description is to determine negative environmental effects of the discharge that will or are likely to occur. While guidance on the preparation of an ESDM Report referenced above should be the principal reference for required information, the following characteristics of the equipment should be included at a minimum:

- The height of the point of discharge;
- The dimensions and configuration of any point source discharge such as a smokestack;
- Any monitoring and control instrumentation related to the emissions with a description of the control and/or monitoring scheme;
- The site elevation profile in the vicinity of the discharge location;
- Any ancillary equipment (such as pollution control equipment) that may influence the concentration or emission rate of the contaminant discharge; and
- For flaring systems, the combustion efficiency of the flare.

Facility Operations Report

The expected concentration of air contaminants discharged from the facility must be described. This should include:

- A list of all contaminants expected to be discharged both at point sources and as fugitive emissions;
- A description of the maximum concentrations of all contaminants expected at locations required through the preparation of an ESDM Report (e.g. at points of impingement);
- A description of the mass transfer/emission rate and times/duration (if intermittent) of the discharge;
- Reference to calculations which show the basis for the concentrations and mass transfer/flow rates expected; and
- Procedural aspects of operating the facility that can influence the mass transfer/emission rate or concentration of contaminants.

5.4. Waste and Biomass Management Equipment

If a renewable energy project includes any systems, facilities, or equipment for handling, storing and processing any waste, biomass, source separated organics, farm material, biogas, and/or waste materials generated by the facility these project components must be described in the Design and Operations Report.

For reference purposes, applicants preparing a facility design plan with biomass, source separated organics, farm material and process waste storage areas can consult Appendix 3 of the MOE publication *"Sample Application Package for a Comprehensive Waste Transfer and Processing Facility Certificate of Approval"* (2009, Publication #6837e). This document provides a hypothetical example of a design and operations report describing a waste transfer facility. The information in this example can serve as a reference for reporting expectations under the REA for facilities with similar components.

Site Plan

The locations of all biomass, source separated organics, farm material and process waste storage and management equipment should be shown in the site plan.

Facility Design Plan

A description of any systems, facilities and equipment for receiving, handling, storing and processing waste, biomass, source separated organics, farm material and biogas is required. Design features relevant for determining negative environmental effects that will or are likely to occur should be given, such as:

- Design, dimensions and capacities of any storage areas;
- Materials used for construction;
- Measures to prevent contaminants from entering surface water or ground water such as a leachate collection system;
- Equipment or systems used to prevent fires, if applicable;
- Equipment or systems used to prevent odours or other air contaminant emissions;
- Equipment or systems used to prevent overflow from tanks; and
- Design features intended for the containment or mitigation of spills.

Facility Operations Plan

Operational matters governing how biomass, source separated organics, farm material and process waste is managed must be provided. A flow chart showing flow of the waste through the process should be included in this description. Operational matters to describe include:

- The types and sources of received materials used at the facility, including a description of how their quality with respect to the concentration of heavy metals and other contaminants will be determined;
- The maximum average daily and annual quantity that will be accepted at the facility as well as a description of the expected frequency for receiving shipments;
- How the materials will be unloaded and handled;
- The estimated average time that the material will remain at the facility prior to being processed;
- The estimated average rate at which the materials will be used;

- The composition, type or classification of any waste generated;
- The amount of waste generated on average on a daily basis or a description of times/amounts if waste is generated intermittently;
- Procedures for collecting and handling wastes;
- The amount, if any, of waste that will be stored at any time on the site;
- Details on the procedure for storing wastes including operational measures to mitigate negative environmental effects that will or are likely to occur (e.g. only unloading waste within an enclosed structure to mitigate dust and odour emissions);
- Information on the process for final disposal of waste including a description of the disposal method, frequency, and procedures for transporting waste from storage and destination of the wastes generated. Waste generated at the facility must be disposed of at an MOE approved facility; and
- Description of sampling and analysis of outgoing biomass/digestate intended for land application including the frequency of sampling.

6. Technology-Specific Guidance

The following sections describe some additional considerations for completing the Design and Operations Report for different renewable energy technologies.

6.1. Solar Projects

Only solar projects with name plate capacity >10 kW and mounted at a location other than on the roof or wall of a building require an REA. These facilities are typically comprised of a number of solar modules mounted with support structures footed in the ground and ancillary electrical equipment to invert, transform and transmit the generated electricity to the grid.

Site Plan

There are no unique site plan requirements for solar projects beyond those for all renewable energy projects.

Facility Design Plan

To describe the design of solar projects, applicants should include the following:

- Make and model of the solar module;
- Diagram of the dimensions of each solar module;
- Diagram and specifications of how the solar modules are mounted;
- Description of the mechanism and range of motion if solar modules track the sun;
- Description of any treatments to land on which the solar modules are proposed, particularly with regard to soil permeability and negative environmental effects that will or are likely to occur related to storm water runoff from the facility; and
- Description of how power is inverted, transformed and transmitted, including specifications of all power conversion equipment.

Facility Operations Plan

Solar energy projects may have unique considerations that should be discussed in the operational plan. Some examples (amongst others determined by the applicant) include:

- How the land upon which the solar modules are mounted will be managed to maintain specified land use conditions. This could include procedures to limit the growth of vegetation. This should be described if such activities will or are likely to cause negative environmental effects.
- How solar modules will be maintained including a description of all maintenance activities, their frequency, and any operational details that contribute to the evaluation of negative environmental effects.

6.2. Wind Projects

Site Plan

Wind energy projects are subject to a number of unique requirements for siting turbines under O. Reg. 359/09. These requirements are discussed in Chapter 3 along with guidance for demonstrating compliance in the site plan.

It is important to note that since wind projects include setback requirements from noise receptors, roads and all property lines, these features must be shown in the site plan for such projects.

Facility Design Plan

All class 2, 3, 4 and 5 wind energy projects require the submission of a Specifications Report as outlined in Table 1 of O. Reg. 359/09. There are two separate table entries to delineate the information required for Class 2 and the higher Classes (3-5). These reports are further described in sections 13 and 14 of Chapter 9.

Specifications provided in a Specifications Report can be summarized and referenced in the Design and Operations Report design plan. A discussion of the potential variance in any of the quoted parameters (i.e. sound power levels) should be included to support conclusions about negative environmental effects that will or are likely to occur.

Turbine tower lighting, for transportation obstruction marking or other purposes, is an additional feature of wind turbines that can be described in the facility design plan.

Facility Operations Plan

The technology-specific considerations for wind energy project operations include:

- How wind turbines will be operated and monitored to ensure proper function. Since damaged turbines can cause increased sound power levels or risk of fire or structural instability, monitoring for damage may mitigate negative effects that will or are likely to occur;
- How meteorological data will be monitored and used to make operational decisions; and
- All maintenance activities, including a description of their frequency and any operational details that could cause or mitigate negative environmental effects.

6.3. Bio-Energy Projects

Bio-energy facilities include those that use anaerobic digestion, thermal treatment, biofuels or biogas to generate electricity. Compared to solar and wind projects, bio-energy projects are more likely to involve multiple discharges of contaminants to air, collection and treatment of sewage/storm water, and the storage or processing of biomass and waste generated at the facility. These facilities may require greater detail in drafting the facility design plan and facility operations plans. It must be noted that the REA may allow the applicants to make changes to the operations of the facility that are consistent with the functions of the approved operation. For example an applicant of a bio-energy facility may propose annual upper limits and maximum storage capacity required for processing of incoming waste biomass at the facility. The REA permits modifications in the amount of waste biomass to be received at the facility as long as the operational methodology, treatment technology, and limits identified in the REA are not modified or exceeded. Applicants are encouraged to discuss possible operational flexibility with the Director at the early stage of the facility planning and prior to submission of an REA application.

Since many of the complexities of these projects relate to proposed water takings, emissions, discharges and/or biomass/waste management as described in section 5 above, this guidance may be applicable but is not repeated in this section.

Site Plan

Specific siting requirements under O. Reg. 359/09 apply to anaerobic digestion and thermal treatment facilities. Siting constraints must be depicted in the site plan as described in sections 6.3.1 and 6.3.2 below. Additional features to indicate on the site plan include (if applicable):

- Receiving, loading and unloading areas for biomass, source separated organics, farm material and process waste including a depiction of the footprint of each area;
- Sorting, screening processing including dewatering and drying areas;
- Digester tank(s) and digested output storage tank, pasteurization equipment;
- Flares and biofilters;

- Buildings where generators, combustion engines, turbines and associated equipment are located;
- Location of any secondary containment measures such as berms, structures and other equipment to control run off or noise from the facility;
- Location of biomass storage areas, including underground/above ground storage tanks, bunkers and pads; and
- Parking lots and storage areas for vehicles.

6.3.1. Anaerobic Digestion Facilities

Anaerobic digestion facilities are subject to requirements to prevent impacts from air emissions including odour and noise on nearby receptors. These requirements can be found in sections 47, 48, and 50 and Table 1 of O. Reg. 359/09. They are also summarized, along with the approval requirements for all renewable energy technologies in Appendix 1 of this document. The requirements govern project components that have the potential to emit odour, including:

- Storage areas/tanks for biomass, farm materials, source separated organics, and digestate material;
- Generating units;
- Flares; and
- Anaerobic digesters.

The regulation defines a range of requirements for mitigating impacts from anaerobic digestion facilities that include applying setback distances, equipping anaerobic digesters with gas storage covers of limited permeability, and/or conducting odour, noise and emissions studies.

Where odour setback distances are used to mitigate potential effects from odour emissions, distances should be calculated from the outer boundary of the area or structure nearest the odour receptor to the odour receptor. This distance must be demonstrated on the site plan directly.

Applicants must include in the site plan all noise and odour receptors that may be adversely impacted by the project. These should also be identified on the plan or in associated tables, with the position of the receptor defined according to the discussion in section 2.6 above.

6.3.2. Thermal Treatment Facilities

Thermal treatment facilities also have technology-specific requirements in O. Reg. 359/09. These requirements address potential noise and odour emissions and are contained in sections 51 and Table 1 of the regulation. Appendix 1 provides a summary of these requirements for reference. Certain thermal treatment projects (Class 2 in O. Reg. 359/09) can adhere to setback distances in lieu of submitting Noise, Odour and ESDM Reports. Applicants must demonstrate compliance to this setback distance by indicating the location of all relevant odour receptors as well as any biomass storage areas and the generating unit. Locations for the purposes of setback distances must be taken from the outer boundary of the area or unit nearest the odour receptor. For Class 3 thermal treatment facilities, environmental effects will be evaluated in a site-specific manner through the preparation of Noise, Odour, and ESDM Reports, among others.

Facility Design Plan

It is important to note that the purpose of the facility design plan is to describe technical elements of the facility so that the environmental impact of the facility can be evaluated. While bio-energy facilities may have relatively more complex electrical generation equipment (compared to solar and wind) the goal of the description of the facility should be to allow for analysis of potential or expected emissions to the environment. For instance, while it may be pertinent to describe the exact height, diameter and design of a stack used for venting exhaust from combustion of biogas, the exact piping specifications for transmitting gas from an anaerobic digester to the generator may not be relevant to evaluating negative environmental effects that will or are likely to occur. Applicants are advised to focus their facility design plan on elements that mitigate negative environmental effects.

Bio-energy projects may include components that take water, store biomass, source separated organics, farm material, generate waste, collect, treat or discharge sewage or storm water, as well as components that discharge contaminants to the air. These unique features can be addressed according to the guidance in section 5 above.

In addition to this, some bio-energy projects are governed by prescribed setback and/or technology requirements to mitigate potential noise and odour emissions (see O. Reg. 359/09 for all requirements, Appendix 1 provides a summary). For instance, some

anaerobic digesters can demonstrate compliance by having a gas storage cover with a design permeability less than 500 cm3/m2/day/bar. The facility design plan must describe how the proposed equipment adheres to all technological requirements if they apply.

Facility Operations Plan

To illustrate the types of considerations to include in the operations plan, the following is an example of content sections that could be used to describe the operation plan for a bio-energy facility:

- Description of on-site operations for electricity generation
- Biomass, source separated organics and farm material screening and processing procedure
- Waste generation, storage and disposal
- Facility equipment maintenance
- Staff training
- Spill prevention and response
- Site inspections and nuisance conditions
    - Dust control
    - Litter prevention and control
    - Pest control
    - Complaint response procedure
    - Record keeping
    - Operational practice in the event of a disruption of shipment

Bio-energy projects may also have unique operational procedures during start-up, shutdown and maintenance periods. These procedures should also be included in the description of facility operation, particularly if these operational procedures may influence the environmental effects caused by the facility or any mitigation measures.

Bio-energy facilities may require the combustion of non-renewable fuels such as natural gas in order to bring the generator into an operational state or under other operational situations. Since the REA regulation places limits on the annual amount of non-renewable fuel that can be used to generate electricity (as per section 36 of O. Reg. 359/09), the operational plan should substantiate the fact that the use of non-renewable fuel will be in compliance. The operational circumstances that require the combustion of non-renewable fuel (if applicable) should be described including the amount of fuel to be combusted. This should be accompanied by rationale for how this will lead to an annual percentage of non-renewable electricity generation below the thresholds in O. Reg. 359/09.

Financial Assurance

The MOE has the authority under section 132 of the Environmental Protection Act to require Financial Assurance on a project-specific basis for any project issued an REA. A Financial Assurance estimate is specifically required for Class 2 and 3 anaerobic digestion facilities and thermal treatment facilities that are managing waste as identified in sections 49, 50 and 52 of O. Reg. 359/09. The applicant is required to provide an estimated Financial Assurance amount that is calculated based on the amount of waste that will be managed in such facilities. This calculation and the provision of funds must be made in accordance with the MOE publication *"Guideline F-15 (Formerly 02 – 03) Financial Assurance"* (2005 publication #0226e04). For projects that require a calculation of estimated Financial Assurance, this calculation should be included in the Design and Operations Report.

7. Environmental Effects Monitoring Plan

To show how negative environmental effects will be mitigated and how ongoing monitoring by the applicant will ensure compliance with O. Reg. 359/09, an EEMP must be prepared as a part of the Design and Operations Report. The plan will be primarily supported by conclusions and descriptions found in other sections of the Design and Operations Report or in other reports prepared for submission to the REA. References to other sections should be made where applicable.

The EEMP should include the following, using summary tables and text descriptions as well as references to other reports as required:

1. **A summary of all negative environmental effects** that will or are likely to occur from the project as given in the description of negative environmental effects in the PDR. This summary is included for context.
2. **Performance objectives** in respect of each negative effect that will or is likely to occur. Performance should be defined such that in achieving the objective negative effect will be mitigated. This is a critical component of the EEMP since the objectives relate to the commitments an applicant will make to protect the environment during project implementation. Applicants are encouraged to meet with MOE at an early stage to discuss the application process and one topic that can be covered is project-specific guidance on appropriate performance objectives.
3. A description of all **mitigation strategies** planned to achieve performance objectives.
4. Where there is an ongoing risk of negative environmental effects that will or are likely to occur, a description of **how the project will be monitored** to ensure that mitigation strategies are meeting performance objectives.
5. **Contingency measures** that will be undertaken should monitoring reveal that any mitigation measures are failing.

Examples of the nature of these plan requirements are depicted in Table 1 below. Note that the evaluation of appropriate performance objectives and mitigation/monitoring strategies is to be determined by the applicant to reflect the unique character of a project and Table 1 is for illustrative purposes only. However, using a table format to summarize the EEMP is a recommended approach to ensure all required elements of the plan are included. A summary table can also be an effective way to present the EEMP for the purposes of application review and consultation.

Negative Environmental Effects that will or are likely to occur	Performance Objective	Mitigation Strategy	Monitoring Plan and Contingency Measures
Noise from a wind turbine may impact a nearby noise receptor	Noise at all nearby noise receptors below 40 dBA	• Adherence to all noise setback requirements as shown in the site plan. • Meteorological monitoring to prevent damage to turbines.	• Turbine aerodynamic monitoring to identify damaged turbines. • Follow-up monitoring in response to public complaints. **Contingency Measures** • Repairing/replacing turbines that are unable to meet standard. • Suspending operation of turbines determined to be out of compliance until they can be fixed.
Leachate from biomass storage area may discharge into nearby stream	Complete containment of all leachate	• See the Effluent Management Plan Report for a full discussion of mitigation measures. Principal measures include: o Covered storage area prevents rainfall contact. o Leachate trap included in storage area design. o Maintenance to ensure proper function of leachate trap. o Unloading of biomass conducted within the covered storage area.	• Post construction inspection of storage area and potential contaminant transport route to stream. • Annual inspection of stream to confirm no negative environmental effects. **Contingency Measures** • If leachate is found to impact stream, additional leachate collection equipment will be installed. • Suspension of biomass storage until adequate mitigation in place. • Monitoring of surface water to ensure no more discharge of leachate into the stream.
Storm water runoff from solar facility may contaminate nearby wetland	No significant change in storm water quality and quantity entering wetland as a result of project activities	• Adherence to natural feature setback requirements as shown in the site plan. • Storm water containment measures during construction as described in the Construction Plan Report and Storm Water Management Plan. • Maintenance of vegetative cover under solar panels as described in the facility design plan.	• Post construction monitoring of generated storm water runoff and the wetland according to the methods and schedules described in the monitoring plan below. **Contingency Measures** • If storm water is found to impact wetland, additional storm water containment and treatment technologies will be installed as described in the monitoring plan below.

While applicants may use a table format as shown above to summarize the EEMP, sufficient detail must be provided to fully describe the table contents. If any monitoring or contingency measures are not detailed sufficiently in other reports or sections, they should be discussed in the EEMP. This should include details on:

- Methodologies and equipment to be used (in general)
- Locations of monitoring
- Frequency of sample collection
- Rationale for how the monitoring plan will provide technically and statistically valid conclusions about meeting the performance objectives
- How results of the monitoring plan will be reported
- The specific contingency measures that will be undertaken, including their timing, design and operational considerations if applicable
- The timing or duration of monitoring, if applicable

Making commitments to monitor renewable energy generation facilities is an important component of being a good neighbour in the local community. Applicants should consider how results of ongoing monitoring can be communicated to the public for the sake of the long term engagement. For other tips on how to be a good neighbour, please read Chapter 11 of this guide.

7.1. Monitoring Requirements for Bird and Bat Impacts from Wind Facilities

Operation of large scale wind turbines can potentially result in bird and bat mortality. To monitor and manage this, applications for Class 3, 4 or 5 wind projects (name plate 50 kW or greater) are required to include an EEMP for birds and bats as per section 23.1 of O. Reg. 359/09. The monitoring activities in the plan must adhere to the following guidance from the MNR:

- "*Birds and Bird Habitats: Guidelines for Wind Power Projects*" dated December 2011, as amended from time to time.
- "*Bats and Bat Habitats: Guidelines for Wind Power Projects*" dated July 2011, as amended from time to time.

These guidelines describe the monitoring that must be undertaken as well as contingency measures that must be imposed if excessive impacts to birds or bats are observed.

For the purpose of the EEMP in the Design and Operations Report, the information related to birds and bats must either be included as a section of the broader monitoring plan or through reference in the Design and Operations Report to a separate document or documents covering the details related to monitoring bird and bat impacts. The information provided about environmental effects monitoring of birds and bats will be reviewed by MNR prior to their issuing comments under section 28 (1) of O. Reg. 359/09.

As noted in section 1.1 of this chapter, applicants who issued a notice of proposal to engage in the project before January 1, 2011 may elect to follow section 23.1 as described above or, under transition provisions, follow the pre-2011 regulation which did not include section 23.1. However, even if an applicant chooses not to follow section 23.1, it is still expected that bird and bat monitoring plans will be included in the general EEMP in the Design and Operations Report. These plans will be reviewed as part of the REA application review process following the submission of a complete application. Current MNR guidance, as cited above, should still be followed when preparing bird and bat monitoring plans for inclusion in the Design and Operations Report in respect of a transition project.

Enforcement Activities

The ministry expects that renewable energy generation facility owners/operators, as long term good neighbours in their local community, will be proactive in investigating and addressing complaints if they arise. They will also be expected to notify the ministry whenever complaints are made.

As part of our compliance monitoring approach, MOE has undertaken unannounced, proactive inspections of renewable energy generation facilities. As well, the ministry routinely undertakes inspections, as warranted, in response to complaints. If a facility is found to be failing to comply with the conditions of its REA, the ministry can use enforcement powers under the Environmental Protection Act, as appropriate, to bring the facility into compliance.

8. Emergency Response and Communications Plans

The proponent of a renewable energy project must create plans to manage emergencies at the project location and to provide channels for communication to the public, Aboriginal communities and municipalities, relevant Ministries of the Ontario Government including MOE, local road boards and local service boards (in this section these organizations will collectively be referred to as "organizations" for brevity). The minimum required content for the Emergency Response and Communications Plans is contained in Table 1 of O. Reg. 359/09, which is provided in section 10 of this Chapter.

At the time of applying for an REA, the Emergency Response and Communications Plans should clearly indicate the organizations that will be contacted under different communications scenarios. The applicant should further commit to creating functional Emergency Response and Communications Plans for use by employees that will include up-to-date contact information and be maintained at the facility (or other accessible location, as appropriate) during the construction, operation and retiring of the facility.

The response plan should include the following components:

Emergency Response

- A plan for communications in the event of an emergency including a description of the chain of communications between the proponent and relevant stakeholders under emergency scenarios applicable to the project.
- A description of how the information will be disseminated to all relevant stakeholders such as the local fire department.
- The Emergency Response Plan should refer to obligations under the Environmental Protection Act with respect to spills.

Non-Emergency Communications

- A plan for non-emergency communications related to the project. This should describe how the public and other organizations will be provided with information about the project. This could include notification of any project changes, results of the ongoing project monitoring, or other matters considered relevant by the applicant.
- A plan for receiving communications from the public and any stakeholder. This should describe how the public and any stakeholders will be directed to correspond with the proponent, how correspondence will be recorded, how the proponent will address any concerns raised, and the communications plan for the response. This should also describe if/how correspondence will be shared with other stakeholders such as the MOE.
- The procedure for recording any complaints from the public should include the following:
  (a) Notifying the local MOE Regional or District office (e.g. the office having jurisdiction over the project location) upon receiving a public complaint. See Appendix 2 for district office contact information. If complaints are received outside of normal business hours, the applicant should notify the MOE's Spills Action Centre (1-800-268-6060).
  (b) Recording each complaint in a log book or in an electronic file. The information recorded should include name, address and the telephone number of the complainant; time and date of the complaint, details of the complaint; actions taken to remediate the cause of the complaint; and proposed actions to be taken to prevent reoccurrence in the future. The applicant should ensure that these records of complaints can be made available to ministry staff (e.g. ministry field inspection staff) during regular business hours on request.

Reporting Spills

Under section 92 of the Environmental Protection Act, any person having control of a pollutant that is spilled must report the spill forthwith to the MOE and the municipality. The MOE's Spills Action Centre (SAC) should be the primary point of contact in the event of a spill. SAC can be reached 24 hours a day at 1-800-268-6060.

Emergency Response and Communication Plans must cover the entire life of the project including construction, operation, and decommissioning phases. If it is anticipated that these phases will lead to changes in the plans, a description of how and when the plans will be updated should be included. This description should also note how stakeholders will be informed of changes in practice.

Having a plan to continue dialogue with the local residents for the entire project lifecycle demonstrates an ongoing desire to be a good neighbour in the local community. For more information on this and other tips for being a good neighbour, applicants should consult Chapter 11 of this guide.

9. Considerations for Projects Subject to Specific Land Use Plans

The Ontario Government has worked to protect sensitive and important natural features and water bodies through four geographically unique Provincial Policy Plans. These policies have been adopted into the provisions of the Reg. 359/09. Special considerations apply to the Design and Operations Report for projects that are proposed to be located entirely or in part on lands subject to these Provincial Policy Plans. Most importantly it may be necessary to demonstrate the need for the renewable energy project location and explain that there are no reasonable alternatives to the project location. The Provincial Policy Plans areas (as defined in their unique Legislative and Plan requirements) include the Niagara Escarpment, Lake Simcoe Watershed, Oak Ridges Moraine, and the Greenbelt. The sections below describe what should be considered for each planning area for the purposes of this report.

9.1. Niagara Escarpment

Section 32 of O. Reg. 359/09 stipulates that applicants proposing projects in the Niagara Escarpment Plan Area must submit drafts of REA reports to the Niagara Escarpment Commission (NEC) 90 days prior to the final public meeting or, if public meetings are not required to be held, 30 days before the application is submitted to the Director. Depending on the nature of the project, development permits may be required by the NEC and evidence of such permits, if applicable, must be included in the complete submission for an REA. If applicants must seek approval from the NEC, it is advised that the REA documents, such as the Design and Operations Report, be drafted in consideration of the requirements of the NEC. Applicants are encouraged to contact the NEC directly to discuss development permits.

9.2. Lake Simcoe Watershed

If the project location is in the Lake Simcoe watershed applicants may be required to provide additional documentation about shoreline protection measures as a component of the Design and Operations Report if the project location is within 30 meters of a water body, otherwise know as the vegetation protection zone.

The additional documentation must demonstrate that:

- There is no alternative but to place the structure in this area and the area occupied by such structures is minimized;
- The ecological function of the vegetation protection zone is maintained;
- Pervious materials and designs are used to the extent feasible; and
- How the project will:
    - Maintain the natural contour of the shoreline by planting natural vegetation and bioengineering as mitigation strategies.
    - Use a vegetative riparian area in respect of water bodies, except where the land is and will continue to be used for agricultural purposes.

Further information on the goals of the Lake Simcoe Protection Plan and suggested mitigation strategies to guide development of a renewable energy project in the watershed can be found in the Plan itself. This MOE publication is entitled *"Lake Simcoe Protection Plan"* (2009, Publication #6932e01). Applicants proposing projects in the Lake Simcoe watershed are also advised to contact the Lake Simcoe Region conservation authority to discuss any potential permits that may be required.

9.3. Oak Ridges Moraine

Renewable energy projects at project locations that are located entirely or partly on land subject to the Oak Ridges Moraine Conservation Plan have special provisions that must be considered in an application for an REA. These provisions are located in sections 42 – 46 of O. Reg. 359/09. The provisions were incorporated in the regulation to maintain protection of the Oak Ridges Moraine in respect of renewable energy projects since these are now exempt from the Planning Act. While O. Reg. 359/09 describes the minimum legal requirements that pertain to projects in the Oak Ridges Moraine, applicants are expected to consider the full intent of the Oak Ridges Moraine Conservation Plan when evaluating negative environmental effects that will or are likely to occur as a result of the proposed project. Depending on the case-specific details of the project, this could be achieved by expanding the Design and Operations Report as follows:

- For projects in landform conservation areas of the plan, providing greater detail on the topography of landforms and a description of how the project may impact landforms including mitigation measures. Such projects should also describe the percentage of developed area and the dimensions of any land rendered impervious as a result of the project.
- Including a Storm Water Management Plan.
- Describing how the project design adheres to a watershed plan developed by a municipality or conservation authority where one exists / is in effect for the area under consideration.
- Providing an account of how planning, design and construction practices ensure that no buildings or other site alterations impede the movement of plants and animals among key natural features, hydrologically sensitive features and adjacent land within Natural Core Areas and Natural Linkage Areas defined in the Oak Ridges Moraine Conservation Plan.

Applicants for an REA are encouraged to refer to the O. Reg.140/02 made under the Oak Ridges Moraine Conservation Act, 2001 and to consult with local municipalities and conservation authorities who have additional experience interpreting the plan as it relates to the project location.

9.4 Greenbelt

Proposed projects located in the Protected Countryside of the Greenbelt are subject to additional requirements under section 41 of O. Reg. 359/09. Though these are the minimum additional requirements, as with projects in the Oak Ridges Moraine it is advised that applicants consider the intent of the Greenbelt Act, 2005 in designing renewable energy projects located in the Greenbelt. Depending on the case-specific details of the project, this could be achieved by expanding the Design and Operations Report as follows:

- Indicating the percentage of developed area and the dimensions of any land rendered impervious as a result of the project;
- Including a Storm Water Management Plan; and
- Describing how the project design adheres to a watershed plan developed by a municipality or conservation authority.

Proponents of projects in the Greenbelt are encouraged to refer to the Ministry of Municipal Affairs and Housing 2005 publication *"Greenbelt Plan"* and to consult with local municipalities and conservation authorities who have additional experience interpreting the plan as it relates to the project location.

10. Requirements for the Design and Operations Report in Table 1 of O. Reg. 359/09

Name of Document	Requirements	Renewable Energy Project
Design and Operations Report	1. Set out a site plan of the project location at which the renewable energy project will be engaged in, including, i. one or more maps or diagrams of, A. all buildings, structures, roads, utility corridors, rights of way and easements required in respect of the renewable energy generation facility and situated within 300 metres of the facility, B. any ground water and surface water supplies used at the facility, C. any things from which contaminants are discharged into the air, D. any works for the collection, transmission, treatment and disposal of sewage, E. any areas where waste, biomass, source separated organics and farm material are stored, handled, processed or disposed of, F. the project location in relation to any of the following within 125 metres: the portion of the Oak Ridges Moraine Conservation Plan Area that is subject to the Oak Ridges Moraine Conservation Plan, the area of the Niagara Escarpment Plan, the Protected Countryside, the Lake Simcoe watershed, and G. any noise receptors or odour receptors that may be negatively affected by the use or operation of the facility, ii. a description of each item diagrammed under subparagraph i, iii. one or more maps or diagrams of land contours, surface water drainage and any of the following, if they have been identified in complying with this Regulation: properties described in Column 1 of the Table to section 19, heritage resources, archaeological resources, water bodies, significant or provincially significant natural features and any other natural features identified in the Protected Countryside or in the portion of the Oak Ridges Moraine Conservation Plan Area that is subject to the Oak Ridges Moraine Plan, iv. a description, map or diagram of the distance between the base of any wind turbines and any public road rights of way or railway rights of way that are within a distance equivalent to the length of any blades of the wind turbine, plus 10 metres, v. a description, map or diagram of the distance between the base of any wind turbines and all boundaries of the parcel of land on which the wind turbine is constructed, installed or expanded within a distance equivalent to the height of the wind turbine, excluding the length of any blades, and vi. a description, map or diagram of the distance between the base of each wind turbine and the nearest noise receptor.	Any renewable energy project, other than a project in respect of a Class 2 wind facility.

Name of Document	Requirements	Renewable Energy Project
Design and Operations Report	2. Set out conceptual plans, specifications and descriptions related to the design of the renewable energy generation facility, including a description of, i. any works for the collection, transmission, treatment and disposal of sewage, including details of any sediment control features and storm water management facilities, ii. any things from which contaminants are discharged into the air, iii. any systems, facilities and equipment for receiving, handling, storing and processing any waste, biomass, source separated organics, farm material and biogas, and iv. if the facility includes a transformer substation, the works, facilities and equipment for secondary spill containment. 3. Set out conceptual plans, specifications and descriptions related to the operation of the renewable energy generation facility, including, i. in respect of any water takings, A. a description of the time period and duration of water takings expected to be associated with the operation of the facility, B. a description of the expected water takings, including rates, amounts and an assessment of the availability of water to meet the expected demand, and C. an assessment of and documentation showing the potential for the facility to interfere with existing uses of the water expected to be taken, ii. a description of the expected quantity of sewage produced and the expected quality of that sewage at the project location and the manner in which it will be disposed of, including details of any sediment control features and storm water management facilities, iii. a description of any expected concentration of air contaminants discharged from the facility, iv. in respect of any biomass, source separated organics and farm material at the facility, A. the maximum daily quantity that will be accepted, B. the estimated annual average quantity that will be accepted, C. the estimated average time that it will remain at the facility, and D. the estimated average rate at which it will be used,	Any renewable energy project, other than a project in respect of a Class 2 wind facility.

Name of Document	Requirements	Renewable Energy Project
Design and Operations Report	v. in respect of any waste generated as a result of processes at the project location, the management and disposal of such waste, including, A. the expected types of waste to be generated, B. the estimated annual average quantity that will be accepted, C. the estimated average time that it will remain at the facility, and D. the estimated average rate at which it will be used, vi. if the facility includes a transformer substation, A. a description of the processes in place to prevent spills, B. a description of the processes to prevent, eliminate or ameliorate any adverse effects in the event of a spill, and C. a description of the processes to restore the natural environment in the event of a spill. 4. Include an EEMP in respect of negative environmental effects that may result from engaging in the renewable energy project, setting out, i. performance objectives in respect of negative environmental effects, ii. mitigation measures to assist in achieving the performance objectives mentioned in subparagraph i, and iii. a program for monitoring negative environmental effects for the duration of the time that the project is engaged in, including a contingency plan to be implemented if any mitigation measures fail. 5. Include a response plan setting out a description of the actions to be taken while engaging in the renewable energy project to inform the public, aboriginal communities and municipalities, local roads boards and Local Services Boards with respect to the project, including, i. measures to provide information regarding the activities occurring at the project location, including emergencies, ii. means by which persons responsible for engaging in the project may be contacted, and iii. means by which correspondence directed to the persons responsible for engaging in the project will be recorded and addressed.	Any renewable energy project, other than a project in respect of a Class 2 wind facility.

Name of Document	Requirements	Renewable Energy Project
Design and Operations Report	6. If the project location is in the Lake Simcoe watershed, a description of whether the project requires alteration of the shore of Lake Simcoe, the shore of a fresh water estuary of a stream connected to Lake Simcoe or other lakes or any permanent or intermittent stream and, i. how the project may impact any shoreline, including the ecological functions of the shoreline, and ii. how the project will be engaged in to, A. maintain the natural contour of the shoreline through the implementation of natural shoreline treatments, such as planting of natural vegetation and bioengineering, and B. use a vegetative riparian area, unless the project location is used for agricultural purposes and will continue to be used for such purposes. 7. If it is determined that the project location is not on a property described in Column 1 of the Table to section 19, provide a summary of the matters addressed in making the determination. 8. If section 20 applies in respect of the project and it is determined that the project location does not meet one of the descriptions set out in subsection 20 (2) or that the project location is not in an area described in subsection 20 (3), provide a summary of the matters addressed in making the determination. 9. If subsection 21 (3) or 23 (2) applies, provide a summary of the matters addressed in making the determination, i. under subsection 21 (3) or clause 23 (2) (a), as the case may be, including a copy of the document completed under the applicable provision, and ii. under clause 23 (3) (b), if applicable.	Any renewable energy project, other than a project in respect of a Class 2 wind facility.

Chapter 7

Guidance for preparing the Decommissioning Plan Report

1. Purpose of the Decommissioning Plan Report

The Decommissioning Plan Report (DPR) is described in item 3 of Table 1, found in the Renewable Energy Approval (REA) Regulation (O. Reg. 359/09). It is a mandatory report that is included as part of the complete application sent to the Ministry of the Environment (MOE) for approval of all renewable energy projects that require an REA other than small scale Class 2 wind facilities (> 3 kW and < 50 kW).

A DPR is required to describe how the applicant proposes to restore the project location to a clean and safe condition, suitable for the likely future use of the land on which it is located. This includes retiring the elements of the renewable energy generation facility, restoring the land and water and managing the excess materials and waste.

At the time of submitting a DPR as part of an REA application, actual decommissioning will likely be a number of years in the future. For this reason, an applicant may not be able to predict with complete certainty the specific details of how decommissioning activities will ultimately be carried out. The importance of the DPR at the time of submission is to require the proponent to consider the proposed decommissioning activities and to identify negative environmental effects that will or are likely to result from decommissioning and outline potential mitigation measures when the project is still being planned.

In most cases, when a project is approved, the Director will impose a condition that requires the applicant to generate an updated and comprehensive decommissioning plan six months in advance of the start of decommissioning and submit it to the Director. While this final comprehensive decommissioning plan will be more detailed than the DPR submitted with an REA application, it is important that the submitted DPR still provide an outline of all anticipated decommissioning activities. This will be important for demonstrating to the ministry, the public, and other stakeholders that the applicant has carefully considered how decommissioning will be done in a manner that will mitigate negative environmental effects that may result from decommissioning.

2. Determining the Probable Future Use for the Facility

The first step in preparing a decommissioning plan is to determine the probable future use of the project location after the project is decommissioned. This determination should be made by the applicant and be clearly indicated in the DPR. To guide the applicant in describing the probable future use, the following should be considered:

- For many projects the current land use prior to development of the project may be the most probable future use. For instance a wind or solar project on agricultural land would most probably be returned to a similar agricultural use at the termination of the project.
- Current zoning or Official Plans of the local municipality may be helpful in determining a probable future use.
- If the project is located within a specified land use planning area such as the Oak Ridges Moraine, Greenbelt, Niagara Escarpment, or the Lake Simcoe watershed, among others, the relevant land use plans may assist in determining appropriate conditions of the probable future use.
- In some cases it may be probable that certain components of a facility would be needed for an alternative future use. For instance, a bio-energy facility may include buildings used for housing generating equipment and/or material storage that could be used for a future industrial use. In this situation, the applicant may define a potential future industrial use and create a DPR that reflects the activities needed to allow for this future use.
- While defining the probable future use is important for creating a meaningful plan, the ministry recognizes the future use may change before actual decommissioning. Applicants will likely be required to update their decommissioning plan in advance of decommissioning and to describe if any circumstances have changed.

3. Content Overview

The DPR describes the plans for decommissioning the renewable energy generation facility; at a minimum, it is required to contain the following information:

1. Procedures for dismantling or demolishing components of the facility;
2. Activities related to the restoration of any land and water to bring the site into a condition consistent with the probable future use; and
3. Procedures for managing excess materials and waste.

Since these items are contained in Table 1 of O. Reg. 359/09, the DPR must contain information about each of them in order to ensure that an REA application will be deemed complete when submitted to the ministry.

In addition to describing how the project will be decommissioned at the end of the project life, the DPR should also include a separate section with a plan for decommissioning in the event that the project is abandoned during construction. This plan should account for the mitigation of any impacts from storm water runoff or dust resulting from an incomplete construction process. The probable end use for the site if abandoned during construction should be the use of the site prior to construction.

4. Description of Decommissioning Activities

Decommissioning of a renewable energy generation facility will require dismantling, the removal of equipment and site restoration. The DPR should provide a plan for the decommissioning of all structures, foundations and infrastructure that are not consistent with the defined probable future use. Applicants should note that practices that limit the need for clearing an area or that minimize other negative environmental effects that will or are likely to occur for the purposes of equipment removal are preferred. Any equipment or infrastructure not proposed to be removed should be clearly noted with an appropriate rationale justifying this approach.

4.1. Procedures for Dismantling and Demolishing

The tables below represent a general description of decommissioning activities for different renewable energy technologies. It should be noted that the decommissioning plan in respect of these activities should include, but is not limited to, the items presented in these tables. The probable future use of the project location should also be considered in selecting the appropriate activities from the tables.

4.1.1. Above-ground Structure Decommissioning

Wind	• Dismantling and removal of turbine components including blades, nacelle, tower and transformers. • Removal of cables, access roads (in consultation with the land owner, if applicable), crane pads/ laydown areas, transmission/distribution lines, buildings, transformers.
Bio-energy	• Dismantling and removal or cleaning/preparing for future use of above-ground buildings, structures, and equipment used for the generation of energy and the storage of process feedstocks and by-products. • Dismantling and removal of access roads and parking/loading areas as appropriate for the probable future use of the site. • Disconnecting and removing all transmission/distribution lines, connections and any supporting structures such as distribution poles, if applicable.
Solar	• Removal of solar photovoltaic modules, mounts and supporting structures, transformers and inverters. • Removal of transmission/distribution lines. • Removal of access roads (in consultation with the landowner, if applicable).

4.1.2. Below-ground Structure Decommissioning

Wind	• Removal of the wind turbine foundation to an extent consistent with the probable future use. • Removal of any underground electrical lines.
Bio-energy	• Removal of below-ground structures, such as storage tanks, pipes, electrical components, foundations. • Disconnecting and removing all electrical lines and connections.
Solar	• Removal of underground mounts, supporting structures, electrical connections, and foundational structures, if any.

In preparing the DPR, applicants should indicate the processes by which the equipment will be dismantled and removed from the site. This should be done to indicate commitments for mitigating negative environmental effects that will or are likely to occur. For instance, erosion and sedimentation control measures as well as other Best Management Practices could be proposed as mitigation strategies during decommissioning. Applicants should also consider the potential for the decommissioning activities to impact cultural heritage (such as archaeology) and discuss any steps that would be taken to assess/mitigate such impacts.

4.2. Site Restoration

In the DPR, applicants are required to describe how the lands and water will be restored to bring the site into a condition consistent with the probable future use. The site restoration activities that may be considered as part of the DPR include but are not limited to removal of all non-native material placed in the project location area including stone, concrete and asphalt. Restoration can also include seeding and re-vegetation to mitigate potential soil erosion. In describing the site restoration activities, applicants are strongly encouraged to consider the soil type as well as the size and type of infrastructure implemented and develop measures accordingly. For example, if the renewable energy generation facility is to be decommissioned to a probable future agricultural land use, the applicant should propose methods for restoring the nutrient content of the soil to provide for that use.

4.3. Managing Excess Materials and Waste

In the DPR, applicants must describe the plans to manage the excess material and waste that will be generated as part of the decommissioning of the renewable energy generation facility. It is recommended that applicants provide a description of the type of the excess material and waste that would be generated as a result of the decommissioning of the facility. The DPR should describe how this excess material and waste will be managed including an indication of whether this material will be transported off-site. If the waste materials are expected to be disposed of at a landfill site, some information about the type of landfill site that would be used (e.g. hazardous waste landfill), should be provided. For bio-energy projects, for example, applicants are required to describe the process of the removal and proper disposal of any biomass that would remain at the facility. If any facility components can be recycled or reused, this should also be described. Where is it proposed to leave any materials on site, the plan needs to clearly explain how this will not adversely impact the current and likely future use of the land. Any material that would be considered waste must be disposed of in accordance with all applicable legislation.

5. Emergency Response and Communications Plans

Depending on the nature of the decommissioning activities proposed, applicants may need to include measures in the Emergency Response and Communications Plans to address concerns related to decommissioning. For a detailed discussion on Emergency Response and Communications Plans please refer to section 8 of Chapter 6.

6. Public, Municipal and Aboriginal Community Notification

The DPR may include decommissioning activities that warrant issuing notice to potentially affected stakeholders. For instance, a municipality should be notified in advance if decommissioning activities may impact local traffic on a municipally controlled road. At the time of submitting an application, the applicant may not be able to provide exact details about everyone who will be notified and at what time, however the application and DPR should be updated six months in advance of decommissioning. Applicants should also note that an Emergency Response and Communications Plan is a component of the Design and Operations Report that must be submitted as part of a complete application for an REA. Applicants can describe the details of who will be notified in relation to decommissioning activities in this plan and provide a link through reference in the DPR.

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7. Other Approvals

Applicants should note that they may require approvals other than REA related, for their proposed decommissioning activities. For example, if the probable future use of the site is a more sensitive land use, the applicant may require a Record of Site Condition under the MOE's Records of Site Condition Regulation, O. Reg. 153/04 made under the Environmental Protection Act.

For the renewable energy projects proposed to be located in an area under the jurisdiction of the Niagara Escarpment Commission (NEC), the DPR must be submitted to the NEC as part of the NEC permit process. Applicants should note that for the decommissioning activities for a project located in an area under the jurisdiction of the NEC, they will require a Development Permit from NEC to carry out the decommissioning. It is highly recommended that applicants consult with NEC on the issues related to the decommissioning of a renewable energy generation facility if the facility is proposed to be located in an area under the jurisdiction of the NEC.

In addition, decommissioning activities may require permits from other agencies, including but not limited to, Fisheries and Oceans Canada, the Ministry of Natural Resources (MNR) and conservation authorities, as well as municipal permits. Applicants should also note that for projects within areas under forest management plans, there may be additional conditions regarding decommissioning and site restoration set out in the existing forest management plan that will need to be respected. For projects which will be located on Crown land, MNR should be consulted for additional requirements.

8. Ongoing Compliance Monitoring and Financial Assurance

The requirements of the REA regulation and any conditions of approval attached to an REA issued to an applicant will set out the rules the project must follow to be in compliance throughout the project lifetime.

As part of our compliance monitoring approach, the MOE undertakes unannounced, proactive inspections of renewable energy generation facilities. As well, the ministry routinely undertakes inspections, as warranted, in response to complaints. If a facility is found failing to comply with the conditions of it's REA, the ministry can use enforcement powers under the Environmental Protection Act, as appropriate, to bring the facility into compliance.

The MOE also has the authority under section 132 of the Environmental Protection Act to require Financial Assurance on a project-specific basis, on any project issued an REA. Typically the ministry requires Financial Assurance against potential future environmental impacts and liability and against potential future waste disposal costs.

Unusually, for Class 2 and 3 anaerobic digestion facilities and thermal treatment facilities that are managing waste as identified in sections 49, 50 and 52 of O. Reg. 359/09, applicants are required to provide an estimated Financial Assurance amount that is calculated based on the amount of waste that will be managed in such facilities. This calculation and the provision of funds must be made in accordance with the MOE publication *"Guideline F-15 (Formerly 02-03) Financial Assurance"*, (Publication #0226e04). For projects that require a calculation of estimated financial assurance, this calculation should be included in the Design and Operations Report.

While well-planned and well-managed renewable energy generation facilities are not expected to pose environmental risks at the time of decommissioning, the ministry will use its powers of compliance enforcement and the requirement for financial assurance, as appropriate, to ensure risks are managed.

Chapter 8

Guidance for preparing the Water Assessment Report and supplementary reporting on any additional mitigation

1. Purpose

The purpose of this chapter is to describe the requirements under O. Reg. 359/09 for the water assessment (sections 29 - 31) and any mitigation measures in respect of negative environmental effects that will or are likely to occur (sections 39 and 40) required under O. Reg. 359/09). It should be noted that this guidance document covers all renewable energy generation facilities that require a Renewable Energy Approval (REA), except Class 2 (> 3 kW < 50 kW) wind facilities. Class 2 wind facilities require an REA but do not require a water assessment.

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2. Key Definitions

Water Assessment Report This guidance refers to the report described in subsections 30 (2) and 31 (4) of O. Reg. 359/09 as the "Water Assessment Report".

Permanent Stream A "permanent stream" is a stream that continually flows in an average year

Intermittent Stream An "intermittent stream" is a natural or artificial channel, other than a dam, that carries water intermittently and does not have established vegetation within the bed of the channel, except vegetation dominated by plant communities that require or prefer the continuous presence of water or continuously saturated soil for their survival

Kettle Lake A "kettle lake" is a depression formed by glacial action and permanently filled with water.

Lake Trout Lake A "lake trout lake" is a lake that has been designated by the Ministry of Natural Resources (MNR) for lake trout management, as set out in records maintained by and available from MNR.

Lake Simcoe Watershed "Lake Simcoe watershed" has the same meaning as in the Lake Simcoe Protection Act, 2008.

Seepage Area A "seepage area" is a site of emergence of ground water where the water table is present at the ground surface, including a spring.

Wetland A "wetland" means land such as a swamp, marsh, bog or fen, other than land that is being used for agricultural purposes and no longer exhibits wetland characteristics, that:

- Is seasonally or permanently covered by shallow water or has the water table close to or at the surface; and
- Has hydric soils and vegetation dominated by hydrophytic or water-tolerant plants.

Wildlife Habitat "Wildlife habitat" means an area where plants, animals and other organisms live or have the potential to live and find adequate amounts of food, water, shelter and space to sustain their population, including an area where a species concentrates at a vulnerable point in its annual or life cycle and an area that is important to a migratory or non-migratory species.

3. Regulation Requirements

The water assessment includes both records review and site investigation with the purpose of identifying and characterizing water bodies in the vicinity of the project location. A Water Assessment Report must be submitted as part of a complete REA application.

If the conclusion of the Water Assessment Report is that a proposed project location is within the setbacks described in subsections 39 (1) and 40 (1) of O. Reg. 359/09, then a supplementary report documenting any additional mitigation measures will be necessary for the project. This supplementary report (or section added to the Water Assessment Report) must be prepared in accordance with subsections 39 (2) and 40 (2) and must assess negative environmental effects that will or are likely to occur, identify mitigation measures, and describe how the Environmental Effects Monitoring Plan (EEMP) and Construction Plan Report address the effects. Furthermore, sections 44 and 45 of O. Reg. 359/09 describe additional setback requirements for projects that are proposed within the Oak Ridges Moraine Conservation Plan Area.

The following chart describes the report(s) required by O. Reg. 359/09 that deal specifically with issues pertaining to water quality and quantity and are submitted for review to the Ministry of the Environment (MOE).

Required report as part of a complete REA application.	Applicants shall complete a Water Assessment Report, which includes: (a) A summary of records searched and results of analysis in accordance with subsection 30 (2). (b) A summary of any correction to the report prepared in (a) and the determinations made as a result of conducting a site investigation as described in subsection 31 (4).
Supplementary report required if encroaching on the setbacks described in subsections 39 (1) and 40 (1).	In accordance with subsections 39 (2) and 40 (2), applicants are required to prepare a supplementary report or section added to the Water Assessment Report above that includes: (a) Identification and assessment of negative environmental effects of the project that will or are likely to occur on the water body identified in the water assessment and land within 30 meters of the water body. (b) Mitigation measures of any effects mentioned in (a). (c) Description of how the EEMP addresses the effects mentioned in (a). (d) Description of how the Construction Plan Report addresses the effects mentioned in (a).

In the course of preparing a water assessment, any issues that have been identified that are ecologically relevant, such as impacts to plants, animals or ecosystems, must be referenced in the Water Assessment Report. If a supplementary report documenting any additional mitigation measures is required in respect of that water body, the information about plant, animal or ecosystems should be cross referenced in the supplementary report and submitted to the MOE for review. Any information that would be collected about natural features during the water assessment or report(s) preparation stages (e.g. wildlife habitat) must be dealt with in detail in the Natural Heritage Assessment (NHA) Report and submitted for review to MNR.

In accordance with O. Reg. 359/09, applicants are required to prepare separate reports for NHAs and

water assessments. The MNR will review NHAs and the MOE will review water assessments.

In addition to the content of a supplementary report documenting any additional mitigation measures, if required, applicants must still describe negative environmental effects that will or are likely to occur related to surface and ground water in several of the required REA reports. These reports include the Project Description Report (PDR), the Construction Plan Report and the Design and Operations Report. Guidance on discussing impacts to water is provided in Chapters 4, 5, and 6, respectively.

Applicants are encouraged to initiate the water assessment as early as possible and consult with the MOE's Environmental Approvals Access and Service Integration Branch to determine the requirements. The MOE's Environmental Approvals Access and Service Integration Branch will ensure that the appropriate MOE District and Regional Offices are involved as well.

3.1. Potential Additional Requirements

While the REA is a streamlined approval that takes the place of a number of permits previously issued by the MOE for such facilities, there are additional permits separate from the REA that could apply depending on the unique features of each proposal.

Applicants are encouraged to contact other agencies such as local conservation authorities, local MNR Regional or District Offices and local Fisheries and Oceans Canada (DFO) Offices early in the process to identify any additional permit requirements and discuss project design requirements.

The contact information for local conservation authorities, local MNR Regional or District Offices and DFO are available in Appendix 2 of this document.

Should there be any approvals, permits, or project design requirements under the Conservation Authorities Act, Fisheries Act, Species at Risk Act and/or the Endangered Species Act, 2007, applicants should discuss these requirements both in the PDR and in the Water Assessment Report that would be submitted to the MOE as part of a complete REA application. Further information about other potential additional permits can be found in Chapter 1 of this document.

3.1.1. Conservation Authorities Act

Renewable energy projects may require approval/permission from the local conservation authority (where one exists) under the Conservation Authorities Act. Through O. Reg. 97/04 made under the Conservation Authorities Act (content of conservation authorities regulations under subsection 28 (1): Development, Interference with wetlands, and Alterations to shorelines and Watercourses), conservation authorities are empowered to regulate development and activities in or adjacent to wetlands, river or stream valleys, watercourses, Great Lakes and large inland lakes, as well as shorelines and hazardous lands. Development taking place on these lands may require permission from the local conservation authority to confirm that the control of flooding, erosion, dynamic beaches or pollution is not affected.

Conservation authorities also regulate the straightening, changing, diverting or interfering in any way with the existing channel of a river, creek, stream, watercourse or the changing or interfering in any way with a wetland. It is recommended that applicants contact local conservation authorities early in the water assessment and report(s) preparation process to arrange a site visit (where possible) to determine specific application requirements for such approvals/permissions.

Should applicants propose to construct facility components within an area under the regulatory jurisdiction of a conservation authority, pre-consultation with the appropriate local conservation authority is strongly recommended as early in the process as possible. For example, local conservation authorities may not be able to approve the proposal if the infrastructure proposed within the regulated area creates an unacceptable flooding or erosion risk.

3.1.2. Fisheries Act

In Canada, fish habitat is regulated under the federal Fisheries Act and the Policy for the Management of Fish Habitat. DFO administers its Fish Habitat Management Program and plays a pivotal role in the conservation and protection of fish habitat in Canada. The Fish Habitat Protection provisions of the federal Fisheries Act provide for the protection of fish habitat. The principal provision under section 35 (1) states that "*no person shall carry on any work, undertaking or activity that results in the harmful alteration, disruption or destruction of fish habitat, except those authorized under section 35 (2).*"

An applicant of a project which may impede fish passage, change water flow in a watercourse, impact fish habitat, or kill fish by means other than fishing, should contact a local conservation authority where

one exists, or otherwise, should contact the appropriate local DFO Office to discuss its requirements. Before they get too far in the project planning, applicants must make sure that they are clear as to which process they need to follow to be in compliance with the Fisheries Act. If they are required, applicants should note that authorizations under the Fisheries Act must be obtained from the appropriate federal authority.

The Fisheries Act has other provisions related to Fish Habitat Protection and Pollution Prevention, including those related to the prohibition of depositing deleterious substances into fish-bearing waters (section 36) and fish passage (found in several sections). Section 36 (3) of the Fisheries Act is administered by Environment Canada and specifies that, unless authorized by federal regulation, no person shall deposit or permit the deposit of deleterious substances of any type in water frequented by fish, or in any place under any conditions where the deleterious substance, or any other deleterious substance that results from the deposit of the deleterious substance, may enter any such water. Applicants should note that for renewable energy projects, authorizations cannot be obtained for depositing any deleterious substances into the water. Proponents should be aware of the most recent regulation, as changes occur from time to time.

Applicants should also note that the DFO and conservation authorities have partnership agreements whereby conservation authorities may review proposals under the Fisheries Act on DFO's behalf.

3.1.3. Endangered Species Act, 2007

Applicants may also need to obtain an approval under the Endangered Species Act, 2007 from the MNR if the project is likely to have an adverse impact on protected species or their habitat. Applicants should contact the appropriate local MNR Regional or District Office, early in the process, to discuss any potential requirements for their projects under the Endangered Species Act, 2007. Applicants should also consult the MNR's "*Approval and Permitting Requirements Document for Renewable Energy Projects*."

4. Water Assessment Requirements

4.1. Water Body Definition

Under O. Reg. 359/09, a "water body" includes: a lake (including kettle lakes and lake trout lakes), a permanent stream, an intermittent stream and a seepage area but does not include:

- Grassed waterways;
- Temporary channels for surface drainage, such as furrows or shallow channels that can be tilled and driven through;
- Rock chutes and spillways;
- Roadside ditches that do not contain a permanent or intermittent stream;
- Temporary pond areas that are normally farmed;
- Dugout ponds; or
- Artificial bodies of water intended for the storage, treatment or recirculation of runoff from farm animal yards, manure storage facilities and sites and outdoor confinement areas.

It should be noted that there may be situations when a water feature would be regulated under the Conservation Authorities Act (i.e. a permit from the local conservation authority would be required for development) but not meet the definition of water body under O. Reg. 359/09. Applicants are encouraged to contact their local conservation authority to ascertain any additional regulatory requirements.

4.2. Project Location and Water Body Boundaries

The development prohibitions and setbacks from natural features and water bodies established in O. Reg. 359/09 are measured from the boundary of the renewable energy project location. Project location means: "*a part of land and all or part of any building or structure in, on or over which a person is engaging in or proposes to engage in the [renewable energy] project and any air space in which a person is engaging in or proposes to engage in the project*".

A renewable energy project includes activities associated with the construction, installation, use,

operation, maintenance, changing or retiring of the renewable energy generation facility. Therefore, for the purposes of measuring the distance from the project location to a natural feature or a water body, a project location boundary is considered to be the outer limit where project activities (e.g. site preparation and construction) will occur or where infrastructure will be located (e.g. temporary structures, lay down areas, storage facilities, generation equipment, access roads, transmission lines less than 50 kilometres in length, etc.).

Measurement from the project location boundary to the feature should be made from the outer extent of the project location along a horizontal plane to the boundary of the natural feature or water body. As the renewable energy project location includes air space that the project occupies, the outer boundary of a project location may be above ground level. Schematic diagrams of this interpretation are presented in Chapter 1, Figures 1, 2, and 3.

The setbacks for lakes and streams, both permanent and intermittent, are required to be measured from the average annual high water mark. For the purposes of the REA applications, the average annual high water mark for streams means the usual or average level to which a body of water rises at its highest point and remains for sufficient time so as to change the characteristics of the land. In flowing waters this refers to the "active channel/bankfull level" which is often the one-to two-year flood flow return level. For inland lakes, it refers to those parts of the water body bed and banks that are frequently flooded by water so as to leave a mark on the land and where the natural vegetation changes from predominately aquatic vegetation to terrestrial vegetation (excepting water-tolerant species). For reservoirs (or controlled lakes) this refers to normal high operating levels (adapted from DFO, 2009). For projects within the Lake Simcoe watershed area, in determining the average annual high water mark, applicants should take into consideration the "Lake Simcoe shoreline" definition provided in the Lake Simcoe Protection Plan. Lake Simcoe Protection Plan information can be found at the following MOE website:

http://www.ene.gov.on.ca/environment/en/resources/STD01_076301.html

This approach is consistent with the definitions provided in the policies made under the Public Lands Act and the MNR's "*Natural Heritage Reference Manual for Natural Heritage Policies of the Provincial Policy Statement*" 2005 publication, Second Edition available at:

http://www.mnr.gov.on.ca/en/Business/LUEPS/Publication/249081.html

4.3. Water Assessment Requirements

In accordance with section 29 of O. Reg. 359/09, a records review and a site investigation are required for all renewable energy generation facilities which require an REA, except Class 2 wind facilities.

4.3.1. Records Review

In accordance with section 30 of O. Reg. 359/09, applicants must determine whether the project location is:

- In a water body;
- Within 120 metres of the average annual high water mark of a lake, other than a lake trout lake that is at or above development capacity;
- Within 300 metres of the average annual high water mark of a lake trout lake that is at or above development capacity;
- Within 120 metres of the average annual high water mark of a permanent or intermittent stream; and/or
- Within 120 metres of a seepage area.

O. Reg. 359/09 requires the search and analysis of the records that relate to water bodies and that are maintained by:

- The MNR;
- The Crown in right of Canada;
- A conservation authority, if the project location is in the area of jurisdiction of the conservation authority;
- Each local and upper-tier municipality in which any part of the project location is situated;
- The planning board of an area of jurisdiction of a planning board in which the project location is situated;
- The municipal planning authority of an area of jurisdiction of a municipal planning authority in which the project location is situated;

- The local roads board of a local roads area in which the project location is situated;
- The Local Services Board of a board area in which the project location is situated; and
- The Niagara Escarpment Commission, if the project location is in the area of the Niagara Escarpment Plan.

In addition, the MOE District and Regional Offices can provide relevant information. Appendix 2 contains contact information for the MOE District and Regional Offices.

In accordance with subsection 30 (2) of O. Reg. 359/09, applicants must prepare a report that sets out a summary of the records that were searched and the results of the analysis.

4.3.2. Site Investigation

Applicants should note that this section provides a description of the site investigation requirements for the purposes of water bodies prior to the amendments to O. Reg. 359/09 which came in effect on January 1, 2011, as well as the requirements after the amendments which came in effect on January 1, 2011.

Water bodies identified in the records review must be investigated to confirm the presence, location and boundary of the feature. Section 31 of O. Reg.359/09 requires that an investigation be conducted of the land and water located within 120 metres of the project location for the purpose of determining:

- Whether the results of the records review are correct or require correction, and to identify any required corrections;
- Whether any additional water bodies exist, other than those identified in the records review;
- The boundaries, located within 120 metres of the project location, of any water body that was identified in the records review or the site investigation; and
- The distance from the project location to the boundaries of any water body that was identified in the records review.

Applicants who issued project notices by December 31, 2010, as described in subsection 15 (1) of O. Reg. 359/09, may continue to conduct and finalize the water assessment in accordance with the requirements before the amendments. In respect of subsection 31 (2) of O. Reg. 359/09, if the records review identified a lake trout lake at or above development capacity, it would require a site investigation within 300 m of the entire project location. Alternatively, the applicant may also choose to follow the amended requirements which came in effect on January 1, 2011, if they give notice to the Director as part of their renewable energy application.

For further information with respect of the amendments to O. Reg. 359/09, applicants may refer to Chapter 1, section 1.1 in this document.

In accordance with subsection 31 (2) of O. Reg. 359/09, for lake trout lakes at or above development capacity that have been identified within 300 metres of the project location the investigation is required in respect of the land and water located between the project location and the lake trout lake that is at or above development capacity.

The investigation for a lake trout lake is conducted to determine:

- The boundaries of any lake trout lake that is at or above development capacity, if:
  - The lake was identified in the records review; and
  - The boundaries are within 300 metres of the project location.
- The distance from the project location to the boundaries of the lake trout lake that is at or above development capacity.

Identifying intermittent streams and seepage areas properly may require a careful site investigation conducted at an appropriate time of the year. Information related to identifying intermittent streams and seepage areas is provided below. Considering that conservation authorities and local MNR Regional or District Offices have important knowledge about local watercourses, applicants are strongly encouraged to consult with the local conservation authority and local MNR Regional or District Office on the issues related to identifying water bodies early in the process.

Site Investigation to Identify an Intermittent Stream

- **Walk and investigate carefully any drainage channels that exist upstream beyond the areas containing flowing water.**
- **Preferably undertake this survey at a time of year when the water table is high, normally the spring.**
- **In the absence of observable water, watch for the following as they may be indicative of an intermittent stream:**
- **Streambed material that differs from the surface of the ground surrounding the stream, e.g. recent accumulations of silt, sand, cobble, or gravel in the streambed;**
- **Ridges of sand or silt deposited roughly parallel to the stream on its flood plain;**
- **Presence of seepage areas, springs, or a high water table near the stream channel;**
- **Presence in or near the stream channel of wetland plants, attached algae, clam or mussel shells, crayfish chimneys or exoskeletons, or aquatic insect larvae;**
- **Sediments deposited on top of plants or plant debris in the streambed;**
- **Absence of leaf litter in the streambed;**
- **Accumulations of debris, such as leaves, twigs or litter, on the upstream side of obstructions in the stream channel; and/or**
- **Presence of hydric soils in the streambed.**

Site Investigation to Identify a Seepage Area

- **Conduct site-scale topographic surveys, ground water or vegetation investigations.**
- **Follow all watercourses to their sources.**
- **Preferably undertake this survey at a time of year when the water table is high, normally the spring.**
- **Identify areas with vegetation indicative of wet areas, i.e., areas where water table may be close to ground surface and are likely locations of seepage areas or springs.**
- **Identify areas with red or rust coloured stains on the soil surface, i.e., areas which usually precipitate iron hydroxides indicating areas of ground water discharge.**
- **Locate patches of ground which are free of ice and snow in winter as these may indicate locations of seepage areas and springs.**

Source: Oak Ridges Moraine Conservation Plan Technical Paper 12 – Hydrological Evaluations for Hydrologically Sensitive Features accessible at http://www.mah.gov.on.ca/AssetFactory.aspx?did=4898

In accordance with subsection 31 (4) of O. Reg. 359/09, the Water Assessment Report must present the findings of the site investigation and discuss:

- A summary of any corrections to the records review; and
- Information relating to each water body identified in the records review and in the site investigation, including:
    - o The type of water body;
    - o The plant and animal composition; and
    - o The ecosystem of the land and water investigated.

Applicants should note that the information related to plant and animal composition and the ecosystem of the land and water investigated may help to inform the NHA which considers negative environmental effects that will or is likely to occur to natural features (e.g. wildlife habitat).

In the Water Assessment Report, which would include the findings of the records review and site investigation, applicants are required to present a map showing:

- All boundaries of water bodies located within 120 or 300 metres of the project location, depending on the type of water body;
- The location and type of each water body identified in relation to the project location; and
- All distances from any water body identified during the records review and site investigation that is within 120 or 300 metres of the project location.

Applicants must provide the following information in the Water Assessment Report:

- A summary of methods used to make observations for the purposes of the site investigation
- The name and qualifications of any person conducting the site investigation

Note that while a physical site investigation is generally required, O. Reg. 359/09 allows for an alternative site investigation where physical investigation cannot reasonably be completed due to physical or legal barriers to accessing land. Applicants should contact the MOE's Environmental Approvals Access and Service Integration Branch to discuss an alternative site investigation if they believe physical investigation is not reasonable.

If the site investigation was conducted by visiting the site the Water Assessment Report must contain the following information:

- The dates and times of the beginning and completion of the site investigation;
- The duration of the site investigation;
- The weather conditions during the site investigation; and
- Field notes kept by the person conducting the site investigation.

If applicants are conducting an alternative site investigation the Water Assessment Report must explain why it was not reasonable to conduct a physical site investigation and the dates of the generation of the data used in the alternative investigation of the site.

4.3.3 Baseline Information

As part of the water assessment, applicants may consider collecting baseline information which will be used in describing, assessing and monitoring negative environmental effects from their projects.

Applicants should note that depending upon the type of project and activity proposed and type of water body (e.g. a lake trout lake at or above development capacity versus a stream), the necessary baseline information would vary. A meeting with the MOE's Environmental Approvals Access and Service Integration Branch is generally encouraged to determine/finalize the scope and extent of baseline information for renewable energy projects. The MOE's Environmental Approvals Access and Service Integration Branch will ensure the participation of appropriate MOE Regional or District Offices in these discussions. In addition, applicants are encouraged to consult with the local MNR Regional or District Office and local conservation authority to determine if additional information exists to assist in addressing baseline information needs. Contact information for these offices is provided in Appendix 2.

Applicants may obtain water bodies information from the Natural Resources Canada's (NRCan) topographic mapping databases. This information is available at the NRCan's Centre for Topographic Information website at http://maps.nrcan.gc.ca/.

Water Quality and Quantity

In collecting baseline information, applicants can access the MOE's Provincial Water Quality Monitoring Network to collect information on stream flow and water levels at the following web link: http://www.ene.gov.on.ca/environment/en/resources/STD01_076358.html.

MNR's Surface Water Monitoring Centre in Peterborough also collects data from stream flow and precipitation gauges weekly for the Ontario Low Water Response Program. Lake Partner information can be found at the following MOE website http://www.ene.gov.on.ca/en/water/lakepartner/index.php.

Source Protection Areas

Under the Clean Water Act, 2006, Assessment Reports for source protection areas (in areas generally covered by conservation authority boundaries) have been prepared outlining surface water vulnerability (including identification of intake protection zones), ground water vulnerability (including identification of wellhead protection areas, highly vulnerable aquifers, and significant ground water recharge areas), water budgets and water quantity stress assessments, and drinking water quality threat assessments. Proposed, draft and approved Assessment Reports can be useful reference materials in collecting baseline information in respect of vulnerable drinking water source protection areas. As Source Protection Plans are completed they are expected to contain area specific protection

policies in each source protection area. Applicants must document whether they are within a vulnerable area identified in a ministry-approved Assessment Report and whether the Source Protection Plan identifies any policies that would be applicable to their proposed facility. The available Source Water Assessment Reports can be viewed at:

http://www.conservation-ontario.on.ca/source_protection/otherswpregionsindex.htm.

Average Annual High Water Mark

For projects proposed in an area under the jurisdiction of a conservation authority, local conservation authorities may have information to assist with determining the average annual high water mark for lakes and streams. For projects proposed to be located in areas outside the jurisdiction of a conservation authority, local MNR Regional or District Offices may have useful information related to determining the average annual water mark for lakes and streams and measuring setbacks from seepage areas. The Water Survey of Canada may also have information in respect of water levels. This data is available at:

http://www.ec.gc.ca/rhc-wsc/default.asp?lang=En&n=894E91BE-1 and

http://www.wateroffice.ec.gc.ca/index_e.html.

Applicants should note that this information may not be readily available and, as such, they may need to conduct studies to determine the average annual high water mark. For any questions specific to determining the average annual high water mark for lakes and streams and measuring setbacks from seepage areas, applicants may contact the MOE's Environmental Approvals Access and Service Integration Branch and the appropriate MOE Regional Technical Support Team will be contacted for assistance.

Fish and Fisheries

Applicants may need to collect information related to cold water or warm water fisheries as well. This information may be used to assess negative effects to fisheries that could be resulting from any changes to water quality and/or water quantity.

Fish and fisheries information may be obtained from local conservation authorities or the DFO and may also be supplemented by local MNR Regional or District Offices if more current information is available in the local MNR Regional or District Office database. There are publicly available information sources, e.g. Land Information Ontario and Natural Heritage Information Centre, which could be immediately reviewed by applicants.

This information could also be used for other permit applications that would be submitted to other agencies including the conservation authorities and the DFO to fulfill the requirements under the Conservation Authorities Act and the federal Fisheries Act.

Soil, Drainage and Vegetation

The MNR Regional or District Offices and local municipalities may have useful soil, drainage and vegetation information.

5. Supplementary Report Documenting Any Additional Mitigation Requirements

A water study is required when the construction, installation or expansion of a renewable energy generation facility is within setback distances set out in O. Reg. 359/09. The findings of this study will be documented in a supplementary report discussing any additional mitigation measures in respect to negative environmental effects that will or are likely to occur.

A supplementary report (or section added to the Water Assessment Report) documenting any additional mitigation measures must be prepared in accordance with subsections 39 (2) and 40 (2) of O. Reg. 359/09 and must include the identification and assessment of negative environmental effects that will or are likely to occur as a result of the project (e.g. site preparation, construction, maintenance, operation and decommissioning activities) on the water body and on the land within 30 metres of the water body. In addition to the identification and assessment of negative environmental effects that will or are likely to occur in the supplementary report, applicants must identify mitigation measures to address these effects and describe how the EEMP and Construction Plan Report (which are submitted as part of the REA application) address the effects.

5.1. Setbacks

There are two setback prohibitions in respect of water bodies in O. Reg. 359/09. They are found in section 39 and section 40.

5.1.1. Section 39

Subsection 39 (1) prohibits the construction, installation or expansion of a renewable energy generation facility in a project location that is in or within the 30 metres of the average annual high water mark of a lake, intermittent stream, permanent stream or seepage area. The provision is intended to protect direct impacts on shoreline vegetation.

However, this prohibition does not apply if, in addition to the preparation of a supplementary report documenting any additional mitigation measures, certain components of the renewable energy generation facility remain outside of the setbacks described above.

For example, for Class 3 or 4 wind facilities, turbines and transformer substations cannot be located within 30 meters of the average high water mark of a lake, or stream or 30 meters of a seepage area.

A wind turbine is defined to mean:

- The structure that supports an electrical generator used to convert wind energy into electricity
- The electrical and mechanical equipment, including electrical generators, used to convert wind energy into electricity
- The base and foundation to which the structure that supports an electrical generator used to convert wind energy into electricity is attached.

This definition includes the tower, the blades, the base and foundation. Accordingly, the measurement of 30 metres distance from the water body to a wind turbine should be from the outer limit of a turbine, which is usually the tip of the blade.

For Class 3 solar facilities, solar photovoltaic modules or device and transformer stations must be located outside of the lake, stream or seepage area and cannot be located within 30 metres of them.

For anaerobic digestion facilities, the biomass storage areas, source separated organics storage areas, farm material storage areas, digestate storage tanks, generating units, flares, anaerobic digesters and transformer substations are not permitted to be installed, constructed or expanded in or within 30 metres of a lake, stream or seepage area.

For a thermal treatment facility no biomass storage areas or transformer substation are permitted to be constructed, installed or expanded in or within 30 metres of a lake, stream or seepage area.

Development of other facility components such as transmission/distribution lines and roads can be built within the water body or 30 metre setbacks; however, a supplementary report documenting any additional mitigation measures must be prepared in accordance with subsection 39 (2) of O. Reg. 359/09 and submitted for review.

Further, should facility components be proposed within 30 metres of a water body, pre-consultation with the appropriate conservation authority is strongly recommended as early in the process as possible to discuss any permitting issues with the proposed facility components. For example, local conservation authorities could not issue a development permit if the infrastructure crates an unacceptable flooding or erosion risk. For projects proposed in an area outside the jurisdiction of a conservation authority, applicants should contact local MNR Regional or District Offices to discuss the matters related to flooding, erosion or other hazards. Applicants should note that the area under the regulatory jurisdiction of a conservation authority may extend beyond the area within 30 metres of a water body.

5.1.2. Section 40

Subsection 40 (1) of O. Reg. 359/09 prohibits the construction, installation or expansion of a renewable energy generation facility in a project location that is within:

- 120 metres of the average annual high water mark of a lake (other than a lake trout lake at or above development capacity), intermittent stream, permanent stream or seepage area; and
- 300 metres of the average annual high water mark of a lake trout lake at or above development capacity.

The provision is intended to protect the drainage area related to the water body. While water bodies like lakes, streams and seepage areas are subject to the 120 metre setback to protect drainage areas, a 300 metre setback applies for Lake Trout lakes at or above development capacity. Applicants should contact the local MNR Regional or District Office to identify any Lake Trout lakes at or above development capacity within 300 metres of the project location. Development within the drainage area setbacks of 120 or 300 metres is permitted; however, only if a supplementary report documenting any additional mitigation measures is prepared in accordance with subsection 40 (2) of O. Reg. 359/09 and submitted as part of the REA application.

O. Reg. 359/09 includes specific requirements for the projects which would be proposed to be built within the Oak Ridges Moraine Conservation Plan Area. Within the Oak Ridges Moraine Conservation Plan Area, only transmission/distribution lines which are part of the renewable energy generation facility can be located in or within 30 metres of the water body. If this is proposed, a supplementary report documenting any additional mitigation measures must be prepared in accordance with subsection 44 (2) of O. Reg. 359/09 and submitted as part of the REA application. This supplementary report should identify and assess negative effects of the construction, installation or operation of the transmission line that will or are likely to occur on the water body and the area within 30 metres of the water body.

Table 2: Setback Requirements (as discussed above):

Water body other than those in the Oak Ridges Moraine Conservation Plan Area	**Prohibition on Facility Construction, Installation or Expansion**	**Exceptions to Prohibitions** based on a Supplementary Report Documenting Any Additional Mitigation Measures
Any lake (including a kettle lake and a lake trout lake at or above development capacity), permanent or intermittent stream	In the lake or stream or within 30 metres of the average annual high water mark of the lake or stream	Only ancillary equipment (e.g. transmission line, road, bridge, and culvert) provided that a supplementary report documenting any additional mitigation measures satisfies the Director that an REA is appropriate. Does not include: • Wind turbines that are part of Class 3 or 4 wind facilities; • Solar photovoltaic panels that are part of Class 3 solar facilities; • Biomass storage areas, source separated organics storage areas, farm material storage areas, digestate storage tanks, generating units, flares, anaerobic digesters; or • Transformer substations.
Any lake (other than a lake trout lake at or above development capacity), permanent or intermittent stream	Within 120 metres of the average annual high water mark of the lake or stream	All components of a facility with a supplementary report documenting any additional mitigation measures that satisfies the Director that an REA is appropriate.
Lake trout lake that is at or above development capacity	Within 300 metres of the average annual high water mark of the lake	All components of a facility with a supplementary report documenting any additional mitigation measures that satisfies the Director that an REA is appropriate.
Seepage area	In the seepage area or within 30 metres of the seepage area	Only ancillary equipment (e.g. transmission line, road, bridge, and culvert) provided that a supplementary report documenting any additional mitigation measures satisfies the Director that an REA is appropriate. Does not include: • Wind turbines that are part of Class 3 or 4 wind facilities; • Solar photovoltaic panels that are part of Class 3 solar facilities; • Biomass storage areas, source separated organics storage areas, farm material storage areas, digestate storage tanks, generating units, flares, anaerobic digesters; or • Transformer substations.

Water body other than those in the Oak Ridges Moraine Conservation Plan Area	**Prohibition on Facility Construction, Installation or Expansion**	**Exceptions to Prohibitions** based on a Supplementary Report Documenting Any Additional Mitigation Measures
Seepage area	Within 120 metres of the seepage area	All components of a facility with a supplementary report documenting any additional mitigation measures that satisfies the Director that a REA is appropriate.
Kettle lake, lake trout lake, permanent or intermittent stream	In the lake or stream or within 30 metres of the annual high water mark of the lake or stream	Only transmission lines provided that a supplementary report documenting any additional mitigation measures satisfies the Director that an REA is appropriate.
Kettle lake, permanent or intermittent stream (other than a water body and project location entirely or partially within a settlement area)	Within 120 metres of the average annual high water mark of the lake	All components of a facility with a supplementary report documenting any additional mitigation measures that satisfies the Director that an REA is appropriate.
Kettle lake that is also a Lake trout lake that is at or above development capacity (other than a water body and project location entirely or partially within a settlement area)	Within 300 metres of the average annual high water mark	All components of a facility with a supplementary report documenting any additional mitigation measures that satisfies the Director that an REA is appropriate.
Seepage area	In or within 30 metres of a seepage area	Only transmission lines provided that a supplementary report documenting any additional mitigation measures satisfies the Director that an REA is appropriate.
Seepage area (other than a water body and project location entirely or partially within a settlement area)	Within 120 metres of a seepage area	All components of a facility with a supplementary report documenting any additional mitigation measures that satisfies the Director that an REA is appropriate.

5.2. Addressing Negative Environmental Effects that Will or are Likely to Occur on Water Bodies

In accordance with O. Reg. 359/09, and as part of a supplementary report if encroaching on the setbacks described in subsections 39 (2) and 40 (2), applicants are required to:

- Identify and assess negative environmental effects on the water body and on land within 30 metres of the water body that will or are likely to occur;
- Identify mitigation measures in respect of negative environmental effects, such as planning, design and construction practices that will minimize and, where

possible, improve or restore the health and diversity of the water body; and

- Describe how the EEMP in the Design and Operation Report, and how the Construction Plan Report will address negative environmental effects on the water body that will or are likely to occur.

In the supplementary report, applicants should characterize and evaluate the nature of negative environmental effects that will or are likely to occur (in terms of likelihood, significance and duration) within the 120 or 300 metre setbacks and how those effects would affect the water body as well as the land within 30 metres of the water body. There may be cases where applicants need to consider effects on an area larger than the land within 30 metres of the water body depending on the likelihood, significance and duration of negative environmental effects within the 120 and 300 metre areas, as applicable. Applicants are encouraged to consult with the MOE's Environmental Approvals Access and Service Integration Branch, local conservation authority and local MNR Regional or District Office in determining the need for expanding the area beyond the 30 metres.

In considering negative environmental effects from a proposed project to a water body and the land within 30 metres of the water body, applicants must examine negative environmental effects that will or are likely to occur when engaging in the project including the construction, operation and decommissioning of the facility.

Negative environmental effects on the water body that will or are likely to occur and the land within 30 metres of the water body should be discussed in the supplementary report, if encroaching on the setbacks described in subsections 39 (2) and 40 (2). This should include negative environmental effects that will or are likely to occur to water quality and quantity, to plant and animal compositions or ecosystems, as well as on the existing uses in the area should be assessed. Any information/assessment in respect of negative environmental effects that will or are likely to occur to plants, animals or ecosystems that would inform the work required under the NHA study should be included in the NHA Report which will be submitted to the MNR.

In assessing potential effects of a proposed project on the environment, applicants should consider the information collected through records review and site investigation and the characteristics of the water body and proposed project activities.

5.2.1. Encroaching on Setbacks

A supplementary report documenting any additional mitigation measures if encroaching on the setbacks described in subsections 39 (2) and 40 (2) should include some or all of the following components, as applicable:

Describe the project and the characteristics of the environment within which the project is proposed including:

- Any area that will be replaced with an impermeable surface;
- Any area where soil compaction may occur;
- Any area where vegetation will be removed;
- Vegetative cover pre- and post-development;
- Existing uses in the watershed, including but not limited to regulated water takings (under a PTTW), discharges, recreation, and contaminated sites;
- Potential for any contamination;
- Predicted use of water resources; and
- Description and characterization of pre- and post-(predicted) development water regime.

Describe significant changes to the water regime that would be generated by the proposed project, including:

- Increase/decrease in runoff (amount and rate);
- Redirection of runoff;
- Increase/decrease in sedimentation;
- Changes in water quality (surface and ground water);
- Change in water temperature;
- Change in recharge capacity of the site; and
- Water uses that will be part of the proposed development and associated impacts on base flow, surface storage, and the ground water table.

Examine the effect of the proposed project on the size, diversity, health, connectivity, functionality and resilience of the water body:

- The level of effects that will or are likely to occur, including the spatial extent, magnitude, frequency and duration of likely adverse effects;
- The extent and degree to which adjacent lands (the land within 30 metres of the water body) may be affected;

- Whether the impacts are likely to result in combined impacts; and
- Impacts that will or are likely to occur on specific water bodies and their functions.

Depending on the proposed activities and characteristics of the site, applicants may need to further describe the hydrologic function and sensitivity of ecosystem features for an effective assessment of negative environmental effects that will or are likely to occur. This could require:

- Assessing the relationship of the feature to the hydrologic system and ecological linkages (in consideration of any potential effects to natural heritage features in the area).
- Conducting fieldwork with a focus on the nature of the interaction between the ground water system and the surface water system and the associated sensitivity of the ecosystem within the spatial extent of the area of investigation.
- Conducting sampling on the underlying aquifer(s), surface water bodies, and any ecological linkages to significant natural heritage features.
- Conducting sampling (scale of the study) in the catchment area providing both base-flow and surface water input to the natural heritage features within and beyond the 120 metres setback in some cases.
- Extrapolating the data to assess stress resulting from the proposed development.

It is strongly recommended that applicants make use of the information gathered for the purposes of documenting any additional mitigation measures, including but not limited to the information regarding the plants, animals, and ecosystems, to inform the work required under the NHA study for their projects.

Applicants are required to identify any action necessary to mitigate negative environmental effect on the water body and the land within 30 metres of the water body that may result from proposed project activities in the supplementary report. In addition to the description of negative environmental effects that will or are likely to occur, applicants are required to describe and document specific mitigation measures that will be implemented to minimize negative environmental effects and, where possible, improve or restore the health, diversity and size of the water body.

Table 3 presents a sample list of negative environmental effects that will or are likely to occur in respect of specific activities, such as site preparation, construction and operation, as well as potential mitigation measures to address such effects.

Table 3: Negative Environmental Effects and Mitigation Measures

Activity	Negative Environmental Effects	Mitigation Measures
Site Preparation • Vegetation Removal • Grading • Installation of services and utilities (roads, storm water management activities)	• Loss of vegetation resulting in increased water temperature • Reduced bank stability and ability to trap sediment from upland areas • Increased erosion, sedimentation and turbidity • Increased inputs of nutrients and contaminants to water bodies • Changes in natural drainage	• Consult available guidance documents for Best Management Practices • Maintain vegetative buffers • Develop and implement an erosion and sediment control plan • Control access and movement of equipment • Schedule to minimize area and duration of soil exposure • Minimize vegetation removal, changes in land contours and natural drainage • Maintain streams (permanent and intermittent) and timing and quantity of flows • Re-establish vegetation as soon as possible • Identify any potential changes to hydrological regime and take measures to maintain existing regime
Construction • Building construction • Water crossings (roads) • Paving • Water taking	• Increased erosion, sedimentation and turbidity • Increased inputs of nutrients and contaminants to water bodies • Potential contamination by oils, gasoline, grease and other materials • Increase in impervious surfaces; increased surface runoff, reduced infiltration and ground water discharge • Pollutants from road • Loss of vegetation resulting in Increased water temperature • Realignment of stream channel; changes in water velocity	• Consult available guidance documents for Best Management Practices • Maintain and provide vegetative buffers; control erosion, sedimentation and nutrient inputs through use of Best Management Practices • Control water contamination through use of Best Management Practices • Control quantity and quality of storm water discharge using Best Management Practices • Minimize width of right of way • Install adequate culverts and gravel base to maintain flow of surface water and shallow ground water • Collect and treat road runoff • Minimize area of paved surfaces; design roads without curbs, gutters and sidewalks to promote infiltration
Operation • Water taking • Discharge into the environment • Accidental spills	• Reduced ground water discharge; reduced stream base-flows; increased water temperature • Increased inputs of nutrients and contaminants to water bodies; increased algal growth, reduced oxygen levels	• Consult available guidance documents for Best Management Practices • Control rate and timing of water pumping

In conducting the required studies in respect of identifying and assessing negative environmental effects that will or are likely to occur and proposing appropriate mitigation measures to address any such effects, applicants are encouraged to consult and take into consideration various MOE technical guidance documents. The relevant MOE technical guidance materials are accessible through the MOE's website at http://www.ene.gov.on.ca/environment/en/resources/index.htm.

Consideration of Negative Environmental Effects from Surface Run-off/Storm Water

If a water body exists within the setback distances prescribed under sections 39, 40, 44, and 45 of O. Reg. 359/09, negative environmental effects on the water body and the land within 30 metres of the water body that will or are likely to occur as a result of surface/storm water runoff should also be described. If there is surface run-off and storm water considerations, applicants should consider using the MOE's storm water management manual: *"Stormwater Management Planning and Design Manual"* (2003, Publication #4329e) as guidance as well as any current applicable watershed and/or sub-watershed study for the area available from local conservation authorities.

Consideration of Negative Environment Effects from Water Taking Activities

If a water body exists within the setback distances prescribed under sections 39, 40, 44, and 45 of O. Reg. 359/09, any specific environmental effects on the water body and the land within 30 metres of the water body that will or is likely to occur as a result of a water taking activity should be discussed and documented in the supplementary report.

If there are proposed water taking activities, applicants should refer to the following MOE technical guidance documents:

- Permit To Take Water Manual, Publication #4932e; and
- Guide to Permit To Take Water Application Form, Publication #5046e.

Depending on the nature of water taking activity being proposed, applicants may need to characterize the water body so that the potential for interference can be assessed. In order to clarify the study and baseline information needs for any proposed water taking activity, applicants are encouraged to contact the MOE's Environmental Approvals Access and Service Integration Branch and the appropriate MOE Regional Technical Support Team will be contacted for assistance.

Detailed guidance in respect of the assessment of negative environmental effects from water taking activities that will or is likely to occur is provided in Chapters 5 and 6 of this guide.

Consideration of Negative Environmental Effects from Discharge into the Environment

If a water body exists within the setback distances prescribed under sections 39, 40, 44, and 45 of O. Reg. 359/09, negative environmental effects on the water body and the land within 30 metres of the water body that will or is likely to occur as a result of a discharge into that water body and onto the land around it should be identified, assessed and documented in the supplementary report on any additional mitigation measures.

If there are anticipated or proposed discharge activities, applicants should refer to the following MOE guidance documents:

- Blue Book - Water Management Policy Guidelines, Provincial Water Quality Objectives, 1994 Publication #5046e; and
- Green Book - Deriving Receiving Water-based, Point Source Effluent Requirements for Ontario Waters, Publication #5046e.

For projects with discharge activity, applicants should characterize the discharged water and the receiving water for the specific parameters of concern. Applicants should note that the specific parameters of concern could vary based on the effluent and receiving water characteristics for each project. Accordingly, applicants are encouraged to contact the MOE's Environmental Approvals Access and Service Integration Branch and the appropriate MOE Regional Technical Support Team will be contacted for assistance to determine these parameters that would be area specific and would apply to the effluent discharge in question. For MOE contact information, applicants can refer to Appendix 2 in this guide.

Detailed guidance in respect of the assessment of negative environmental effects from a discharge activity that will or is likely to occur is provided in Chapter 5.

Applicants should also note that there are additional reporting requirements for certain types of bio-energy projects including anaerobic digestion and thermal treatment. The guidance for additional reporting requirements can be found in Chapter 9. For projects other than these bio-energy projects, applicants should also consider potential for any discharge into the environment (land, water and air), and take appropriate action to identify and assess negative environmental effects that will or are likely to result from a discharge activity and proposed appropriate mitigation.

Consideration of Negative Environmental Effects from Accidental Spills and Contaminants

Applicants should identify if there are any activities proposed in any of the project phases that could result in accidental spills of contaminants. For projects, for example, which will have a transformer station or converter/inverter component or digestate storage tanks that would be built as part of the project, applicants need to discuss measures they will be implementing to prevent spill, including spill containment and the amount of containment that would be provided.

In the supplementary report, if encroaching on setbacks described in subsections 39 (2) and 40 (2), applicants are expected to describe negative environmental effects associated with accidental spills and contaminants to the water body and the land within 30 metres of the water body. Any actions that would be taken in the event that a spill occurs should be discussed both in the Design and Operations Report and the supplementary report documenting any additional mitigation measures if encroaching on setbacks described in subsections 39 (2) and 40 (2). With respect to spills, applicants should refer to Part X (Spills) of the Environmental Protection Act. In case of a spill, applicants should notify the MOE Regional and District Offices and take corrective action. The MOE Regional and District Office contact information is presented in Appendix 2 of this guide.

5.3. Construction Plan Report and Environmental Effects Monitoring Plan

In accordance with O. Reg. 359/09, and as part of the supplementary report, if encroaching on setbacks described in subsections 39 (2) and 40 (2), applicants will also describe how the Construction Plan Report, prepared in accordance with Table 1 of O. Reg. 359/09, addresses negative environmental effects to each specific water body and the land within 30 metres of the water body. Further guidance on the Construction Plan Report is provided in Chapter 5.

In accordance with O. Reg. 359/09, and as part of the supplementary report documenting any additional mitigation measures if encroaching on setbacks described in subsections 39 (2) and 40 (2), applicants will also describe how the EEMP addresses negative environmental effects on the water body.

The EEMP will include a summary table of each monitoring action related to negative environmental effects that will or are likely to occur on the water bodies and the land within 30 metres of the water bodies. In preparing this summary table, applicants should refer to the findings of the Water Assessment Report and the supplementary report documenting any additional mitigation measures and develop the sections of the summary table with the specific details of the monitoring approach, such as methodology and rationale used in selecting appropriate mitigation measures to address negative environmental effects on water bodies.

As part of the EEMP required for the Design and Operations Report, Contingency Plans should also be prepared for any of the construction, operation or decommissioning phases of the project life cycle to minimize/mitigate negative environmental effects on water bodies that will or are likely to occur, and where possible, improve or restore the health, diversity and size of the water body. In preparation of the assessment and mitigation exercises, existing lake management, coastal management and shoreline management plans would become very useful references. Lake management plans can be accessed at http://www.epa.

gov/greatlakes/lamp/index.html. Additionally, fisheries and watershed management plans may be available through local conservation authorities.

If the project is not proposed to be located within prescribed setbacks, negative environmental effects that will or are likely to occur related to surface and storm water runoff, water taking, discharge into the environment, both land and water, and accidental spills should be considered within the PDR, Construction Plan Report and/or Design and Operations Report. The specific mitigation measures will be outlined in the Construction Plan Report, (e.g. Erosion and Sediment Control) and within the EEMP Report within the Design and Operations Report. Specific consideration of performance objectives for the EEMP are to be included. If the project is proposed to be located within prescribed setbacks, the supplementary report should include a description of mitigation measures. Applicants should ensure that information/assessment provided in the reports is consistent.

6. Areas With Additional Considerations

O. Reg. 359/09 includes additional requirements which are related to water bodies in specific areas including the Oak Ridges Moraine Conservation Plan area, the Lake Simcoe watershed area, and the Great Lakes. In fulfilling these requirements, applicants should have consideration of or refer to the following documents:

- Oak Ridges Moraine Conservation Plan, available on the Ministry of Municipal Affairs and Housing website: http://www.mah.gov.on.ca/AssetFactory.aspx?did=1779
- Lake Simcoe Protection Plan, Publication #6932e01, available on the MOE website: http://www.ene.gov.on.ca/environment/en/resources/STD01_076301.html
- Great Lakes Charter – charter signed by the premiers of Ontario and Quebec and the governors of Illinois, Indiana, Michigan, Minnesota, New York, Ohio, Pennsylvania and Wisconsin on February 11, 1985 and amended by the Great Lakes Charter Annex, dated June 18, 2001. The Great Lakes Charter can be found at: http://www.cglg.org/projects/water/docs/GreatLakesCharter.pdf

6.1. Oak Ridges Moraine Conservation Plan Area

In addition to the prohibitions described above, section 46 of O. Reg. 359/09 prohibits the construction, installation or expansion of a part of a renewable energy generation facility to be used or operated, as a rapid infiltration basin or a rapid infiltration column. Under O. Reg. 359/09 "rapid infiltration basin" and "rapid infiltration column" have the same meanings as in subsection 47 (3) of O. Reg. 140/02 (Oak Ridges Moraine Conservation Plan) made under the Oak Ridges Moraine Conservation Act, 2001.

According to Oak Ridges Moraine Conservation Plan "rapid infiltration basin" means a basin or system of basins at or below surface grade that is constructed in porous soil and punctures through a relatively impermeable layer to gain access to more permeable sand or gravel, so as to rapidly infiltrate into the ground, at a single point or area of concentration, surface runoff collected from impervious surfaces.

Also "rapid infiltration column" means a column or system of columns at or below surface grade that is constructed in porous soil and punctures through a relatively impermeable layer to gain access to a more permeable sand or gravel layer, so as to rapidly infiltrate into the ground, at a single point or area of concentration, surface runoff collected from impervious surfaces.

6.2. Lake Simcoe Protection Area

If the project location is in the Lake Simcoe watershed, in the Design and Operations Report, applicants must describe:

- That there is no alternative but to place the structure in this area and the area occupied by such structures is minimized.
- The ecological function of the vegetation protection zone is maintained and,
- Pervious materials and designs are used to the extent feasible.
- How the project will:
    - Maintain the natural contour of the shoreline by planting natural vegetation and bioengineering as mitigation strategies; and
    - Use a vegetative riparian area in respect of water bodies, except where the land is and will continue to be used for agricultural purposes.

6.3. The Great Lakes

Applicants should note that in considering an REA application, the Director is required to ensure that Ontario's obligations under the Great Lakes Charter with respect to the application are complied with. The "Great Lakes Charter" is the charter signed by the premiers of Ontario and Quebec and the governors of Illinois, Indiana, Michigan, Minnesota, New York, Ohio, Pennsylvania and Wisconsin on February 11, 1985 and amended by the Great Lakes Charter Annex, dated June 18, 2001. This may require completing additional studies other than those required by O. Reg. 359/09.

In the assessment of negative environmental effects that will or are likely to occur and preparation of construction, design and operations and mitigation plans, it is recommended that consideration be given to the distinct natural features of the Great Lakes e.g., near-shore shunt, direct phosphorus runoff/discharge, spills, coastal habitat and species. Accordingly, existing Lake Management Plans, coastal management areas and shoreline management plans, if there is any for the project location, would become very useful references in collecting baseline information and developing mitigation measures, if necessary.

Chapter 9

Additional reports that may be required as part of an REA application

1. Purpose

The following sections provide an overview of the requirements for additional reports that may be needed for a complete Renewable Energy Approval (REA) submission. The requirement to prepare many of these reports, their function, and the minimum requirements with respect to making them publicly available have been introduced at other places in this guide, such as in Chapter 1. The sections that follow present the reader with a consolidated place to describe the content requirements for all the additional reports that may be required by O. Reg. 359/09.

The minimum required content of these reports is set out in Table 1 of O. Reg. 359/09, as well as within other parts of the regulation itself. For several of the reports, guidance is provided in other government documents, and the sections that follow provide references where appropriate.

2. Archaeological Assessment Report

For all facilities that require an REA (except those prescribed under section 20 of O. Reg. 359/09) applicants must undertake an archaeological assessment, unless they determine there is low potential for archaeological resources at the project location. Applicants can make this determination by considering criteria included in the *"REA Checklist: Consideration of Potential for Archaeological Resources"* issued by the Ministry of Tourism, Culture and Sport (MTCS), as required by subsection 21(3) of O. Reg. 359/09.

In the case of those projects that are prescribed under section 20, an archaeological assessment is only required if one of the following conditions is met:

- the project location is within 250 metres of an archaeological resource that is set out in records MTCS maintains;
- the facility is located on a property designated as an archaeological site under Regulation 875 made under the Ontario Heritage Act; or
- the project location is in an area of archaeological potential that has been identified on a municipal archaeological management plan.

If an archaeological assessment is undertaken, it must be conducted by a licensed consultant archaeologist as defined in subsection 1 (1) of O. Reg. 8/06 made under the Ontario Heritage Act.

An archaeological assessment must be prepared in advance of submitting a complete REA application since it must be submitted to the MTCS in order for MTCS to be able to issue a written comments letter (which must be submitted as part of the REA application). See Chapter 1 of this guide for further detail.

The archaeological assessment process can include between 1 and 4 stages, beginning with a determination of the potential for archaeological

resources (Stage 1), followed by a resource inventory (Stage 2), archaeological site assessment (Stage 3) and mitigation (Stage 4), if necessary. The consultant archaeologist must submit a report or reports on the archaeological assessment to MTCS as part of the REA application and as a condition of his or her licence.

In order to facilitate the approval of renewable energy projects, the REA application may be submitted to the Ministry of the Environment (MOE) following either a Stage 2 archaeological assessment report, or a Stage 1 report where it is determined that a Stage 2 is not required. If archaeological resources are identified, further stages of assessment may be required during the development process. All archaeological assessments must be conducted in accordance with the *"Standards and Guidelines for Consultant Archaeologists"* (2011) issued by the MTCS and available on the MTCS website: (www.mtc.gov.on.ca).

3. Effluent Management Plan Report

The Effluent Management Plan Report is required for the following bio-energy facilities:

- A Class 2 or 3 Anaerobic Digestion Facility
- A Class 1, 2 or 3 Thermal Treatment Facility

These are facilities where it is likely that some sewage or storm water effluent will be produced and require assessment and management. The goal of the Effluent Management Plan Report is to provide sufficient detail about all potential effluents, their treatment/mitigation, and the potential for negative impacts on surface water and ground water if treated effluents are discharged. Applicants should consult with staff from the local MOE Regional Technical Support Unit prior to completing the Effluent Management Plan Report.

If an application requires an Effluent Management Plan Report but no sewage generation is proposed, the Effluent Management Plan Report can be constrained in scope. In this case, the applicant should state that no sewage is proposed to be generated and provide a description of the components of the facility design that provide the rationale for this conclusion.

For some facilities, a Hydrogeological Assessment Report and Surface Water Assessment Report may also be required (see sections 7 and 12). If these reports are required, applicants are encouraged to prepare the three reports so that they complement one another in providing a clear account of the potential impacts of the project on surface water and ground water. To this end, the Effluent Management Plan Report should focus on the amount and nature of generated effluents and on the treatment technology used for mitigation of impacts. The Hydrogeological Assessment Report and Surface Water Assessment Report provide greater detail on the water resources (surface and ground water) where effluents may be discharged and characterize negative environmental effects of the project that will or are likely to occur on these resources.

When an Effluent Management Plan Report must be prepared, the content provided should include the following components:

Description of Effluent (Sewage)

All effluents produced as a result of engaging in the project must be completely described. This description must include:

- Expected qualities and quantities of sewage produced by or at the facility;
- The manner in which the sewage is expected to be treated and disposed;
- Mitigation measures to ensure that the sewage will not result in negative environmental effects on the quality of water; and
- If sewage is proposed to be discharged into surface water, the assimilative capacity of the receiving water body.

As part of this the following information should be provided:

- The expected flow rates and times/duration (if intermittent) of sewage collection and treatment;
- Expected concentrations of key contaminants in sewage at various points in the collection/treatment system; and
- Calculations demonstrating the basis for the expected quantity/quality of sewage. A description of the rationale for estimating effluent quantity and flow rates should be provided. Calculations should also be included to show how the quantity and quality of sewage supports the design parameters of any treatment equipment.

Description of Sewage Collection, Treatment and Disposal

Any sewage collection, treatment and disposal equipment used to mitigate negative environmental effects that will or are likely to occur should be described. The detail required to complete this description will depend on the complexity of the sewage works proposed. Simple solutions may only require details on the design specifications, such as dimensions and performance objectives of the collection system. On the other hand, a more complex solution, such as a biological treatment facility may require more detailed design descriptions, as well as operational plans and control schemes.

Sewage Treatment at an Offsite Facility

If the application only proposes the collection and treatment of sewage through discharge to a municipal sanitary sewer or through the hauling of sewage to an offsite disposal facility, this must be stated. For discharge to a municipal sanitary sewer, the applicant should specify the contaminant limits that apply (such as those required by a sewer use bylaw) with respect to the discharge. These limits should be compared with the contaminant levels and sewage flows proposed. For sewage transported offsite for treatment, both the sewage hauler and the receiving facility must be approved to manage the sewage and the applicant should state this in their report. Details on how sewage is collected and stored at the site, as well as how it is transferred to the sewage hauler should be provided.

In all cases, the treatment performance objective of the process should be stated in regards to any contaminant that is to be removed or converted as a result of treatment. This should include the concentration or other appropriate measure of the contaminant, which could be used to assess negative environmental effects that will or are likely to occur when discharged to a receiving water body.

With regard to this range of potential works, applicants should consult relevant MOE guidance documents in relation to sewage treatment to assist with determining the appropriate details to include. These documents are listed below:

"*Guide to Applying for an Environmental Compliance Approval*," 2012 Publication #8527e

- This guide describes the approval process and the requirements for obtaining an Environmental Compliance Approval (ECA). This Guide may be amended from time to time. Applicants are required to use the most recent Guide.

"*Design Guidelines for Sewage Works*," 2008 Publication #6879e

- This document provides information on recommended design guidelines for sewage works such as sewers and sewage treatment plants.

"*Stormwater Management Planning and Design Manual*," 2003 Publication #4329e

- This document provides information on approaches to manage storm water through facility design and installation of storm water management equipment.

Description of the Receiving Water Body

If any sewage will be discharged to a receiving surface water body, the assimilative capacity of the water body must be assessed and described.

Policy 2 for Water Resource Management

For certain renewable energy projects, a discharge of wastewater may be proposed in contravention of MOE's Policy 2 for Water Resources Management. Policy 2, defined in the MOE publication "*Water Management: Policies, Guidelines, and Provincial Water Quality Objectives of the Ministry Of Environment And Energy*" (1994, Publication #3303B), states:

"*Water quality which presently does not meet the Provincial Water Quality Objectives shall not be degraded further and all practical measures shall be taken to upgrade the water quality to the Objective*." (section 3.2.2).

If a discharge is proposed to a receiving water body that has the potential to be in contravention of Policy 2, applicants are advised to consult with the ministry's regional Technical Support Section at an early stage in project planning. Applicants proposing a discharge that deviate from Policy 2 are expected to seek authorization for the deviation from the MOE prior to submitting a complete REA application. See section 5.2.1 of Chapter 1 for more information.

Where a Surface Water Assessment Report has been prepared as part of the REA application, this may be referenced. If the sewage discharge results in the project location being within 120 metres of a water body, a supplementary report documenting any additional mitigation measures will also require preparation. Please refer to Chapter 8 for more information on these reports.

The requirements for the assimilative capacity study vary from site to site; however, in general, the applicant should provide the following information:

- Low flow conditions in the receiving water body, e.g., the 7Q20 for a stream, i.e., the 7-day average low flow occurring once in 20 years;
- The background concentration of any contaminant parameter of concern;
- The maximum allowable downstream increase for each parameter of concern, e.g., the difference between the background level and the Provincial Water Quality Objective;
- A proposed effluent load allocation for the facility based on the entire watershed and watershed users (downstream/upstream); and
- Methods used to reduce impact of the effluent on the receiving water body, e.g., use of diffusers, effluent and receiving water density considerations, discharging at rates proportional to stream flow, etc.

The evidence presented to describe the assimilative capacity should allow for a determination of negative environmental effects that will or are likely to occur as a result of the effluent discharge. In drawing such conclusions, the applicant should present and provide all calculations and the rationale used to evaluate impact on the water body.

4. Emission Summary and Dispersion Modelling Report

The Emission Summary and Dispersion Modelling Report (ESDM Report) is required to demonstrate compliance with O. Reg. 419/05 for the emission of contaminants into the air. For renewable energy projects that include emissions into the air, applicants must prepare an ESDM Report in accordance with section 26 of O. Reg. 419/05 (Air Pollution – Local Air Quality) under the Environmental Protection Act. The following MOE guidance materials can be used to assist with preparing this report:

"*Guideline A-10: Procedure for Preparing an Emission Summary and Dispersion Monitoring (ESDM) Report*," 2009 Publication #3614e03

"*Guideline A-11: Air Dispersion Modelling Guideline for Ontario*," 2009 Publication #5165e02

"*Technical Bulletin: Methodology for Modelling Contaminants with 10-Minute Average Standards and Guidelines under O. Reg. 419/05*," 2008 Publication #6700e

5. Environmental Impact Study Report

Environmental Impact Studies are required whenever a project is proposed within specified setback distances to significant natural features as described in sections 37, 38, 41 and 43 of O. Reg. 359/09. Guidance for the preparation of an Environmental Impact Study is presented in the *"Natural Heritage Assessment Guide for Renewable Energy Projects"* available from the Ministry of Natural Resources (MNR). This Environmental Impact Study may be included within a Natural Heritage Assessment (NHA) Report as outlined in section 8 below.

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6. Heritage Assessment Report

With the exception of projects prescribed under subsection 23 (5), all REA applicants must undertake a heritage assessment, unless they determine that there are no protected properties that abut the parcel of land on which the project is situated and that there is low potential for heritage resources at the project location. Applicants can make this determination by considering criteria included in the checklist issued by the MTCS, as required in subsection 23 (2) of O. Reg. 359/09.

If a heritage assessment is undertaken, the person undertaking the assessment must follow and report on the heritage assessment requirements outlined in section 23 of O. Reg. 359/09. Heritage assessments are conducted by heritage consultants or other qualified persons who have the appropriate expertise in the identification, evaluation and conservation of built heritage resources and cultural heritage landscapes. The Heritage Assessment Report must outline the expertise and experience of the person who conducted the assessment, as per clause 23 (2.1) (a) of O. Reg. 359/09.

The heritage assessment must be prepared in advance of submitting a complete REA application since it must be reviewed by the MTCS in order for this ministry to issue a written comments letter as described in Chapter 1 of this guide. The Heritage Assessment Report will identify heritage resources, evaluate project impacts and will describe measures to be taken to avoid, eliminate or mitigate the impacts, where applicable.

7. Hydrogeological Assessment Report

The Hydrogeological Assessment Report is required for Class 3 anaerobic digestion facilities and Class 3 thermal treatment facilities. A Hydrogeological Assessment Report is also required for Class 2 anaerobic digestion facilities located at a farm operation and Class 2 thermal treatment facilities if they are not already regulated under sections 10 or 13 of O. Reg. 267/03 (General) made under the Nutrient Management Act, 2002.

Preparation of the Hydrogeological Assessment Report must be completed by a professional engineer or professional geoscientist (or by someone under supervision of such professionals). Applicants should consult with staff from the local MOE Regional Technical Support Unit prior to completing the Hydrogeological Assessment Report.

The principal components of the report are:

Description of Project Geology/ Hydrogeology

The geological and hydrogeological conditions of the land must be described for all land within 300 metres of any storage areas for biomass, source separated organics, farm materials, or residual waste, as well as from any digestate storage tanks or digester tanks.

The description in the report should include:

- An overview of the local physiographic and hydrogeological setting, including ground water and surface water features and functions;
- The key topographic/geological features in the study area;
- Details on soil materials present in the study area, including thicknesses, composition, and texture;
- The geological stratigraphic framework should be provided. In bedrock environments this should include known fractures, joints, bedding planes, faults, and shear zones, if applicable;
- The hydrogeological features of local aquitards and aquifers (confined, semi-confined and unconfined) that the licensed engineer or geoscientist considers relevant to the proposed taking. This may include details of their depth, thickness, lateral continuity, porosity, vertical/horizontal hydraulic gradients, hydraulic conductivity, transmissivity, storativity/ specific storage and the location / nature of aquifer recharge supplying the well;
- Location of all water wells at the site and within 300 m of the project location; and
- A site-specific conceptual hydrogeological model should be developed based on published geological and hydrogeological mapping, supplemented with site-specific hydrogeological information, as defined above. Wherever possible, this should be done within the context of existing regional scale watershed studies or ground water studies, which commonly include pertinent information such as local recharge rates and surface water base flows.

The format for presenting this information can include descriptions, specifications and plans including maps and diagrams as long as they are clear and accurate.

Assessment of Site Suitability

After characterizing the site geology and developing a conceptual model of the site hydrogeology, the report must set out an assessment of the suitability of the project location for the handling, storage and processing of biomass taking into account a number of factors. One factor is the facility design. Relevant details include:

- Aspects of the facility related to the storage of biomass, source separated organics, farm materials, residual waste or any other materials that have the potential to generate leachate or seepage that may affect ground water. This should include an assessment of the design of such project components

and the appropriateness of the design in regard to preventing negative effects. For example, secondary containment may be proposed for the capture of any accidental spills from liquid biomass storage tanks.

- Any aspects of the facility that have the potential to cause the discharge of contaminants to ground water through normal operation or through accidental spills or leakage (for instance through the use of underground storage tanks).
- Any major perturbation to landforms arising from installation of the facility that could impact ground water flow or quality.

Another factor that needs to be taken into account is the ability to identify through monitoring negative environmental effects to ground water as a result of leachate production. The sampling protocol with respect to sampling locations and frequency should be described, including:

- The methodology for sampling and measurement;
- The reliability/appropriateness of any equipment used for sampling or measurement; and
- The name of the accredited laboratory to be used for analysing the samples.

When preparing the assessment, the last factor that must be taken into account is the feasibility of contingency plans that could be implemented in unexpected circumstances.

Scenarios that should be considered include:

- A spill at the project location;
- Structural failure of the storage tanks leading to seepage of stored material into the ground water;
- Runoff from storage area and access to a water well on or off-site;
- If greater than anticipated volumes of leachate are produced;
- If leachate quality is worse than expected;
- If mitigation measures are ineffective; and/or
- If adverse effects are detected through monitoring site ground water.

It should be noted that depending on the circumstances of the project and the potential for the project to impact ground water resources at the project location or on nearby properties, the Director may request that a Reasonable Use Agreement be prepared in respect of the project.

8. Natural Heritage Assessment Report

This guidance refers to the report required to describe how NHA requirements specified in sections 24 - 27 of O. Reg. 359/09 have been met as the "Natural Heritage Assessment Report". These sections are required for all renewable energy generation facilities subject to the REA regulation except Class 2 wind projects. The NHA process can involve records review, site investigation (including alternative site investigation, as described in section 26 of O. Reg. 359/09), evaluation of significance of natural features, and the preparation of an Environmental Impact Study, depending on the proximity of the project location to natural features. Guidance for the preparation of an NHA report is presented in the "*Natural Heritage Assessment Guide for Renewable Energy Projects"* available from MNR.

9. Noise Study Report (General)

Noise study reports (excluding noise studies for wind facilities, which are covered separately in section 9.3 below) are required for certain bio-energy facilities and class 3 solar projects. They are required to be prepared in accordance with the MOE publication:

"*Guide to Applying for an Environmental Compliance Approval*," 2012 Publication #8527e

A noise study report may also be required for evaluating noise for associated transformers at a renewable energy generation facility, as per clause 35 (2)(b) of O. Reg. 359/09. Such a report must also be prepared in accordance with the user guide described above.

9.1. Noise Study Reports for Bio-energy and Other Facilities (excluding Wind and Solar Facilities)

Noise associated with activities such as the following should be addressed in the acoustic assessment report:

1. flares,
2. trucking activity (related routine loading and unloading),
3. treatment/odour control unit(s), and
4. combustion engines.

9.2. Noise Study Reports for Class 3 Solar Facilities

For further clarity, the following list outlines the information that the ministry expects to be included in noise study reports for class 3 solar facilities submitted as part of an REA application:

Equipment

Avoid identifying multiple options for equipment and noise control measures. Should detailed information on equipment and noise control measures not be available, equipment should be identified that would address the worst case scenario in terms of sound emissions, source heights, and specifications and locations of noise control measures.

Vacant Lots

Receptors on vacant lots should be addressed. For example, if the vacant lot is in an agricultural area zoned for sensitive use, such as residential, the lot should be included in the report. The receptor location, if unknown at the time of the proposal, shall be based on a 1 hectare (10,000 m^2) building envelope within the vacant lot property that would reasonably be expected to contain the use, and that conforms with the municipal zoning by-laws in effect. The specific receptor location for assessment purposes should be assumed to be 4.5 m above grade and consistent with the typical building pattern in the area, or at the centre of the 1 hectare building envelope.

If the zoning by-laws allow for residential dwellings, vacant lots on that property need to be considered in the report.

Existing Points of Reception

Point of Reception locations should be assessed at the most exposed façades of the buildings/dwellings, facing the noise sources, to ensure the worst-case noise impacts are addressed.

Transformer Substation

Reports should include a detailed noise impact assessment due to the transformer substation at each Point of Reception within 1000 m of the transformer. Reports should also include the sound level emissions guaranteed by the manufacturer of the actual transformer for this project. Should the actual guaranteed sound level emissions not be available, the sound emissions should be determined and reported according to the IEEE Standard C57.12.90. The physical dimensions of the core tank and the operating low/high voltage rating of the transformer for the substation should also be included.

Inverters and Medium-Voltage Transformers

State the name plate capacities and sound emission data of the inverters and medium-voltage transformers, and the number of inverter and medium-voltage transformers units per cluster. If the specifics of the equipment are not available in the early stage of project design, the report should include the maximum power rating of the proposed equipment. The report should be updated once the information becomes available. The proponent may submit the updated noise report to the MOE prior to the issuance of the approval, as long as sufficient time is available for MOE to review the report, or subsequent to the issuance of the approval, as part of an application for an amended REA approval. Sound level data, spectral and overall, should be correctly labelled (i.e. dBLin or dBA). Note that the correct way to submit frequency spectra information is linear (unweighted), not A-weighted spectrum. For the medium-voltage transformers, the operating low/high voltage rating of each transformer should also be included. Universal Transverse Mercator (UTM) coordinates of each inverter, medium-voltage transformer, and the centre of the cluster must also be provided.

Adjacent Solar Farms – Combined Effects

The combined sound levels from equipment in adjacent solar facilities should be considered. When combining the sound levels, applicants should ensure that the numbering of receptors is consistent for all adjacent facilities.

Criteria

The report should represent the worst-case noise impact. Since the equipment may be in operation during early morning prior to 07:00 as well as evenings after 19:00, the applicable sound level limit is 40 dBA (or the lowest hourly ambient sound level due to road traffic at a Point of Reception if that level is greater than 40 dBA) during early mornings as well as evenings.

Tonality

Sound emission from transformers and most inverters are considered tonal and should be adjusted using a 5 dB penalty, in accordance with NPC-104 “Sound Level Adjustments”.

Modelling

The MOE approved prediction model is the ISO 9613-2 standard. Ground attenuation should be modelled using source, middle and receiver ground factors of 1, 0.8 and 0.5. or using an overall value of 0.7 for all three factors. The choice of the ground attenuation factors should be consistent with the local conditions under a worst case scenario.

The assessment of barrier attenuation should correspond to configurations of source, barrier and receptor where the line-of-sight between the source and receptor is broken by the barrier. The report should assume that barriers/obstacles that do not break the line-of-sight result in no barrier attenuation (i.e. negative path length difference in barrier attenuation calculation is not acceptable). Atmospheric attenuation should use 10°C temperature and 70% humidity. The noise impact assessment should disregard the effect local barriers, small structures, equipment or variation of topography on the site of the facility. The assessment should also disregard the actual solar panels (i.e. any effect of the solar panels should be considered immaterial to the sound propagation). Each cluster should be modelled as separate noise sources: the sound power level of each inverter and the sound power level of the medium-voltage transformer. In the case when the inverters and medium-voltage transformer are enclosed as a single unit, the cluster may be assessed as a single noise source.

Barriers

The report should include the following:

- UTM coordinates and drawings of any proposed acoustical barrier for the transformer substation, showing plan view and elevation views with complete dimensions, including height and extent of the barrier;
- UTM coordinates and drawings of any proposed acoustical barriers for the inverter clusters, showing plan view and elevation views with complete dimensions, including height and extent of the barrier;
- drawings showing the dimensions of each noise source and barrier; and
- sample calculations of barrier attenuation and the results in 1/1 frequency octave bands.

Enclosures

If, for the purposes of compliance with MOE requirements, the proposal uses acoustic enclosures for the inverters, the acoustical properties of the enclosures must be specified.

9.3. Noise Study Report for Wind Facilities

Certain provisions of O. Reg. 359/09 refer to the creation of a noise study in accordance with the MOE publication *"Noise Guidelines for Wind Farms"* (2008, Publication #4709e). These include requirements for evaluating combined noise from multiple turbines, as per subsection 54 (3) and 55 (3) and for assessing noise from turbines at a receptor where hourly road traffic noise is greater than 40 dBA, as per subsection 54 (2), both of O. Reg. 359/09. A noise study report can also be required for evaluating noise for associated transformers at wind facilities, as per clause 35 (2) (a) of this regulation. Such a report must be prepared in accordance with the noise guidelines for wind farms, as cited above and submitted as part of an application for an REA.

10. Odour Study Report

An Odour Study Report is required for Class 3 anaerobic digestion facilities, Class 3 thermal treatment facilities, and for all biofuel and biogas facilities. The purpose of this report is to identify sources of odour and determine the potential for the odour to cause negative effects at odour receptors in the vicinity of the project. The required content of this report is defined in Table 1 of O. Reg. 359/09 as follows:

1. The significant process and fugitive sources of odour discharge from the renewable energy generation facility;
2. Negative environmental effects that may result from the odour discharge mentioned in paragraph 1 at all odour receptors; and
3. The technical methods that are expected to be employed to mitigate negative environmental effects mentioned in paragraph 2 and negative environmental effects that are expected to result if the technical methods are employed.

Further guidance on the required content is provided below:

Description of Potential Odour Sources

The report should identify and describe all significant potential sources of odour, including those from process equipment and fugitive sources. The description should include:

- Details on the project component that relates to the odour, such as the design specifications of a storage tank or biomass/residual waste storage area that could emit odour;

- A description of the materials that have the potential to cause odour, including proposed quantities;
- Identification of any variables or operational conditions that can influence the rate of odour generation or frequency of odour generation events; and
- A quantification of the magnitude of the odour source, including a description of the methodology used to calculate this value.

Evaluation of Negative Environmental Effects

The report must describe negative environmental effects that will or are likely to result from the odour discharge at all odour receptors. This should be done by providing the following:

- Identification of the location of any odour receptor that will or is likely to be negatively affected by odour arising from the project. The distance from receptors to all sources of odour should be provided. This can be done through reference to the Site Plan of the Design and Operations Report, where locations of odour sources and receptors can be shown graphically and in tables as appropriate;
- Through reference to the ESDM Report, a quantification of the magnitude of potential odour at all receptors should be provided, including a description of the methodology used;
- A discussion of any technical uncertainty or statistical variance associated with the quantification of odour magnitude at receptors; and
- A conclusion about negative environmental effects that will or are likely to occur.

The MOE publication *"Technical Bulletin: Methodology for Modelling Contaminants with 10-Minute Average Standards and Guidelines under O. Reg. 419/05"* (2008, Publication #6700e) can be used to guide applicants in modelling the dispersion of odour, if applicable.

Description of Mitigation Measures

The Odour Study Report must describe all technical methods employed to mitigate negative environmental effects, as well as describe negative environmental effects that are expected to result after the technical methods are employed. This description should include:

- The mechanism for controlling odour. For instance, a description of how odours are contained or treated;
- The specifications of any equipment used to control the odour. Such equipment should also be depicted in the Design Plan and Site Plan where applicable;
- The performance objective of the mitigation equipment such as the magnitude of expected odour emitted following mitigation;
- A discussion of any technical uncertainty or statistical variance associated with the efficacy of the mitigation technology;
- Any variables or circumstances that could impact the efficacy of the mitigation measure;
- Through reference to the ESDM Report, a quantification of the magnitude of potential odour at all receptors;
- A description of negative environmental effects that are expected to result after implementation of the mitigation measure;
- Any proposed ongoing maintenance and monitoring of the mitigation equipment or of odour control equipment;
- A response plan for any public complaints about odour. This could reference the Emergency Response and Communication Plan in the Design and Operations Report.

11. Property Line Setback Written Assessment

As described in more detail in Chapter 3, Class 3, 4, and 5 wind projects are subject to property line setback requirements that require turbines to be located a distance equal to the hub height from a property line. A turbine may be sited closer to the property line (to a limit of the length of the turbine blade plus ten metres from the property line) if the applicant submits a Property Line Setback Written Assessment to fulfil the requirement of subsection 53 (3) of O. Reg. 359/09. This additional written assessment can also be incorporated in the Design and Operations Report as a separate section or sections.

The Property Line Setback Written Assessment must be developed to demonstrate that siting the turbine in such a location will not result in any adverse impacts on neighbouring businesses, infrastructure, or land use activities. Specifically, the assessment should evaluate the land use in the vicinity of the turbine. This should confirm the presence of structures (i.e. barns, storage buildings, stables) and if there will be any expected adverse impacts associated with the turbine being located closer than the turbine hub height setback. If there are potential adverse impacts, a description of preventative measures to address the potential adverse impacts must be included. Such an assessment must be performed separately for each turbine that is sited within the specified property line setback. Diagrams of the turbine locations in question depicting the land uses could be incorporated in the assessment to provide greater clarity.

12. Surface Water Assessment Report

A Surface Water Assessment Report is required for:

- Class 2 anaerobic digestion facilities, if section 10 or 13 of O. Reg. 267/03 (General) made under the Nutrient Management Act, 2002 does not apply to the farm operation
- Class 3 anaerobic digestion facilities
- Class 1, 2 and 3 thermal treatment facilities

The Surface Water Assessment Report must be completed by a licensed professional engineer or professional geoscientist (or by someone under supervision of such professionals). Applicants should consult with staff of the local MOE Regional Technical Support Unit prior to completing the Surface Water Assessment Report.

The Surface Water Assessment Report is required to include the following information:

- Plans, specifications and descriptions of the surface water features at the project location and any surface water features that will receive a direct discharge of treated sewage as part of engaging in the project.
- An assessment of the suitability of the facility for the handling, storage and processing of biomass, source separated organics, farm materials, and digestate material, taking into account:
    - The design of the facility, including features that will be implemented to control the expected production of leachate;
    - The flow of surface water and erosion and sedimentation resulting from the flow of surface water;

- The surface water features within 300 metres of the location where biomass, source separated organics or farm material will be handled, stored or processed;
- Any surface water features that will receive a direct discharge of treated sewage from the facility and the surface water features of the project location;
- The ability to identify negative environmental effects of leachate production on the surface water by monitoring; and
- The feasibility of contingency plans that can be implemented to control negative environmental effects on surface water resulting from the production of leachate in a quantity greater than expected or with a quality worse than expected.

Further guidance on specific elements of the required content is given below.

Description of Surface Water Features

Surface water features at the project location must be surveyed and described. Any surface water features that receive a direct discharge of treated sewage must also be described. Applicants should discuss the appropriate parameters to describe with the MOE's Regional Technical Support Unit. Parameters can include physical and chemical characteristics of the water body such as the dimensions, depth, seasonal flow and fluctuations, high water mark, and as necessary pH, dissolved oxygen, biochemical oxygen demand (BOD), temperature and others.

Assessment of Facility Suitability

After describing the water bodies at the project location, an assessment of the facility for the suitability for the handling, storage and processing of biomass, source separated organics, farm material, residual waste, and digestate material must be prepared. To perform this evaluation, a number of key factors must be taken into account.

One factor is how aspects of the facility are designed in relation to the storage and processing of biomass, source separated organics, farm materials, or residual waste to control the production of leachate, erosion and sedimentation. This should include an assessment of the design of such project components and the appropriateness of the design in regards to preventing negative effects including:

- Any aspects of the facility that will or is likely to cause the discharge of contaminants to surface water through normal operation or through accidental spills or leakage (for instance through the use of storage tanks or piping);
- The structure and materials of construction for any storage or processing facilities;
- The structure and materials of construction of any secondary containment area; and
- Any major perturbations to landforms arising from installation of the facility that could impact surface water flow or quality.

Other factors to be taken into account are the surface water features at the project location and within 300 m of the location where biomass, source separated organics, farm material, or residual waste will be stored, processed or handled, in addition to those that will receive a direct discharge of sewage from the facility. This should include an assessment of negative environmental effects that will or are likely to occur on the water body. This discussion can refer to the conclusions drawn regarding the assimilative capacity of the water body in the Effluent Management Plan Report.

An additional factor to be taken into account in evaluating the facility is the ability to identify negative environmental effects of leachate production on the surface water through monitoring. This discussion should evaluate:

- The sampling protocol with respect to sampling locations, frequency and parameters to be sampled;
- The methodology for sampling and measurement; and
- The reliability/appropriateness of any equipment used for sampling or measurement.

When preparing the assessment, the last factor that must be taken into account is the feasibility of contingency plans that could be implemented in unexpected circumstances. Scenarios that should be considered include:

- If greater than anticipated volumes of leachate are produced;
- If leachate quality is worse than expected;
- If mitigation measures are ineffective; and
- If adverse effects are detected through monitoring site surface water.

13. Specifications Report, Wind Facility (Not Class 2)

This Specifications Report is required for all Class 3, 4 and 5 wind facilities. The principal content of the report is specified in Table 1 of O. Reg. 359/09. It requires that the following be specified for the turbine type(s) proposed:

- Make and model of the turbine;
- Name plate capacity;
- Hub height above grade; and
- Rotational speeds.

Acoustic emissions data, in accordance with standard CAN/CSA-C61400-11-07, "*Wind Turbine Generator Systems — Part 11: Acoustic Noise Measurement Techniques*", dated October 2007, must also be provided. This must include:

- The overall sound power level;
- Measurement uncertainty value;
- Octave-band sound power levels (linear weighted); and
- Tonality and tonal audibility.

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14. Specifications Report, Class 2 Wind Facility

This Specifications Report is required for all Class 2 wind facilities. The principal content of the report is specified in Table 1 of O. Reg. 359/09. It requires that the following be specified for each turbine:

- All of the manufacturer's specifications that are available in respect of the wind turbine;
- The acoustic emissions in terms of overall sound power level and the corresponding frequency spectrum in terms of octave-band sound power levels;
- A site plan, drawn to scale, including the project location, property boundaries, location of all proposed wind turbines and all noise receptors and public roads (within a 1 kilometre radius from the base of each wind turbine); and
- A table listing the distances from the base of eachproposed wind turbine relative to each noise receptor in metres.

This information will provide important details that the applicant can refer to in describing negative environmental effects that will or are likely to occur from the project in their Project Description Report.

Chapter 10

Making Changes to Renewable Energy Approval (REA) Projects

1. Purpose of this Chapter

The purpose of this chapter is to outline the process and potential requirements for proponents seeking to make one or more changes to their renewable energy project after the final public meeting[1] or after the issuance of an REA. It also describes the process to be followed when a proponent is seeking to alter the terms and conditions of an REA. While this chapter is written to provide detailed information about the project change process and requirements, it is general commentary only, and does not constitute professional advice, or advice about any specific situation. Readers must obtain their own professional advice about each individual case.

Proponents of renewable energy projects who have not yet started the REA process should refer to O.Reg.359/09 for the requirements that apply to such changes, specifically sections 16.0.1 and Part IV.1 (sections 32.1 to 32.5). In addition, earlier chapters of this *Technical Guide to Renewable Energy Approvals* also provide guidance and direction on how to prepare an application for an REA.

1.1. Structure

This chapter begins with some general comments on making changes to a project in section 1. Section 2 describes the categories of changes and provides some examples. The categories are intended to be a guide as to what requirements for further documentation, notification and consultation will typically be imposed. Section 3 outlines the typical requirements and their applicability to the different categories at various stages in the REA process. In this respect, section 4 provides guidance on making changes to a project before an REA has been issued by the Ministry of the Environment (MOE); and section 5 provides guidance on making changes to a project after an REA has been issued. Finally, section 6 provides a brief note on fees.

1.2. Proposing Changes to a Project

The objectives of the process for dealing with changes to renewable energy projects are similar to those underlying the process for initially obtaining an REA itself, namely, the investigation of negative environmental effects that will or are likely to occur and a description of measures to mitigate those effects, as well as ensuring transparency with the public, municipalities, and Aboriginal communities. The change processes outlined in the following sections are designed to ensure that applicants identify and consider how the change(s) to their project may impact the environmental effects of the facility.

Requirements for additional documentation, notification and consultation may be imposed by the Director where a change is proposed to a project (see O. Reg. 359/09, sections 16.0.1 and 32.1 to 32.5). Typically it is expected that additional documentation, notification and consultation requirements will vary according to the nature of the proposed change(s). If the proposed change(s) result in negative environmental effects that will or are likely to occur beyond those that were previously identified, documented and consulted on, the additional requirements will provide interested persons with an opportunity to submit comments and concerns regarding a proposed change to the applicant and to the MOE for consideration since the Director may impose them wherever failure to do so, in the Director's opinion, might result in an adequate understanding by the public of negative environmental effects of the proposed changes.

[1] Where there is no final meeting required for a renewable energy project, this requirement applies to any change after a notice under section 15 of O. Reg. 359/09.

1.3. Operational Flexibility

Operational flexibility allows applicants to make some modification to their facility's operations or works without having to seek an amendment to their REA. Operational flexibility refers to changes that may be pre-approved as part of an applicant's renewable energy project when the REA was first issued. These pre-approved changes are intended to apply to routine maintenance adjustments and other environmentally insignificant operational changes.

Examples of operational changes that may be permitted as part of an REA include:

- Routine modifications to the facility with predictable effects that are environmentally insignificant and do not extend the project location, such as replacing a fence or resurfacing an existing parking lot;
- Seasonal changes to facility hours of operation;
- Decrease in the Project Location size;
- Decrease in the number of project components or infrastructure, including:
    - Transformer substation(s)
    - Wind turbines
    - Solar inverter/transformer cluster(s)
    - Generating unit(s)
- Decrease in the amount of waste to be processed daily and/or annually.

The approval of operational flexibility is assessed on a project specific basis by the Director as part of the initial REA application review for the project. Proponents must describe any desired operational flexibility parameters for their project in their REA application for consideration.

A proponent can avoid triggering the need for amendments, and the consequent fees, by ensuring that a sufficient degree of operational flexibility is described and assessed in the original application for many types of minor program changes. Proponents are therefore encouraged to carefully consider and plan in advance, what degree of operational flexibility they will require, before submitting an application to the MOE. Additional information on operational flexibility can be found in Chapter 1 of this guide.

By contrast, examples of changes that would not be allowed within the terms and conditions of an REA are:

- Changing facility classification (e.g. from a Class 2 to a Class 3 Anaerobic Digestion facility or replacing a Class 2 wind facility with a Class 3 wind facility);
- Proposing the movement of a project to a completely new location.

These would not be considered a project change but instead would be considered a new project and would require a new application.

1.4. Other Permits and Approvals

Applicants should consider how changes to their project may affect other provincial and/or federal permitting and approval processes that apply to the project. This could include processes that are often undertaken concurrent to the REA process, such as potential permits, approvals, or authorizations which may be required from the Ministry of Natural Resources (MNR). For example, changing a project design after an Endangered Species Act, 2007 authorization has been obtained may result in the need for a new or updated authorization.

The renewable energy generation facility may also be subject to review and approval processes subsequent or concurrent to the REA process, and proponents need to consider if these processes could be affected by modifying the project design after an REA has been issued. For example, making changes to electricity distribution or transmission components of a project may affect assessments that are often conducted by the local distribution company or independent electricity system operator in respect of distribution or transmission infrastructure needed to connect the facility to the electrical grid. Proponents contemplating changes to a project should discuss those changes with the local distribution company or independent electricity system operator, particularly if connecting the project to the grid will require the upgrade, construction or installation of electricity distribution or transmission assets.

2. Categories of Project Changes

Changes to a project can be thought of as being on a spectrum representing the overall degree of environmental impacts they are likely to present. Project changes can be grouped into four categories based on the degree of negative environmental effects that will or is likely to occur. Categorization in turn will usually impact the requirements for documentation, notification and consultation a proponent will be expected to undertake (and that may be imposed by the Director) with respect to the change:

1. Administrative Change
2. Technical Change
3. Project Design Change
4. Major Project Design Change

The categorization and final requirements, if any, which may be imposed for additional documentation, notification and consultation is at the discretion of the Director. Proponents seeking to make a change are encouraged to speak with the Environmental Approvals Access and Service Integration Branch of the MOE as soon as possible if clarification or further guidance is required in determining the category of proposed change(s). Proponents are also advised to contact the MNR and the Ministry of Tourism, Culture and Sport (MTCS) to determine impacts to the natural heritage, archaeological and/or cultural heritage assessments, respectively, prior to communicating proposed project changes to the MOE.

Ministry of the Environment

Environmental Approvals Access and Service Integration Branch

Telephone: 1-800-461-6290 or 416-314-8001.

Please note: The examples listed in this chapter are not exhaustive and are provided for illustrative purposes only.

2.1. Administrative Change

Administrative changes are those that have no bearing on negative environmental effects that will or are likely to occur, including mitigation measures in respect of those effects, and would not result in any discernible physical change in the design, construction or operation of a project.

Examples of administrative changes include:

- Change of owner or operator;
- Change of address of owner or operator;
- Change of partners where the owner or operator is or at any time becomes a partnership;
- Any change of name where the owner or operator is or at any time becomes a corporation;
- Change in record keeping location;
- Administrative corrections (such as revoking spent or obsolete terms or conditions);
- Typographical corrections to ensure clarity and/or consistency that would not result in an alteration to the project.

2.2. Technical Change

Technical changes are those that **will not result in increased negative environmental effects that will or are likely to occur beyond those that were identified, documented and consulted on during the REA process for the original project**. Proposed changes that will result in improvements to the environment are also included in this category.

Factors for consideration in determining if a change falls into this category include:

- No increase to the Project Location size;
- No increase (same or lower) in the overall impact at the receptors (e.g. noise, odour, etc.);
- No additional lands require archaeological assessment AND there are no changes to previous recommendations for further assessment;
- Reconfirmation of written confirmation and comments for cultural heritage;
- Reconfirmation of written confirmation and comments for natural heritage (i.e. no change) or reduction in requirements (i.e. reduced footprint, reduced environmental effects, monitoring plan requirements).

Examples of technical changes, subject to the factors listed above include:

- Change in access/emergency access road;
- Change in volume/type of material used in anaerobic digesters where there has been demonstrated evidence of no environmental impact as a result of the anaerobic digestion process;
- Change in location and/or equipment (e.g. technology type) of the following project components or infrastructure that **will not result in increased** negative environmental effects that will or are likely to occur beyond those originally identified:
    - Transformer substation(s);
    - Wind turbines;
    - Solar inverter/transformer cluster(s);
    - Gas engine generator(s) and flares.

2.3. Project Design Change

Project design changes are those that result in **minimal increases in negative environmental effects that will or are likely to occur**. Factors for consideration in determining if a change falls into this category include:

- Change occurs in and around the original Project Location (i.e. extending the boundary of the original project location);
- Minimal increases in the overall impact at the receptors (i.e. noise, odour, etc.);
- Requires undertaking archaeological assessment (Stage 1 and/or 2) on lands not previously assessed that does not identify resources AND impact to previously identified archaeological resources remain unchanged OR requires undertaking a Stage 2 archaeological assessment within a previously assessed area AND impacts to previously identified archaeological resources remain unchanged;
- Reconfirmation of written comments for cultural heritage;
- Additional natural heritage work is required only within a previously assessed area.

Examples of project design changes, subject to the factors listed above include:

- Increase in the Project Location size or change in the Project Location from its originally proposed location that results in **minimal** increases in negative environmental effects that will or are likely to occur;
- Change in biomass storage capacity of the facility;
- Increase in quantity of biomass to be processed at the facility by 100 tonnes/day or less;
- Increase in the number, location and/or equipment (e.g. technology type) of the following project components or infrastructure that result in **minimal** increases in negative environmental effects that will or are likely to occur:
    - Transformer substation(s);
    - Wind turbine(s);
    - Solar inverter/transformer cluster(s);
    - Gas engine generator(s) and flares.

2.4. Major Project Design Change

Major project design changes are those that result in **substantial increases in negative environmental effects that will or are likely to occur, beyond those that were previously identified, documented and consulted on during the REA process for the original project**. Factors for consideration in determining if a change falls into this category include:

- Change occurs in and around the original Project Location (i.e. extending the boundary of the original project location);
- Substantial increases in the overall impact at the receptors (i.e. noise, odour, etc.);
- Requires undertaking an archaeological assessment (Stage 1/2) on lands not previously assessed that identifies resources OR requires a Stage 3 archaeological assessment that was not previously required;
- Requires that new lands be assessed with respect to cultural heritage OR previously identified cultural resources are impacted in a different way;
- Additional natural heritage work required within a newly assessed area.

Examples of major project design changes shall include:

- Increase in the Project Location size or change in the Project Location from its originally proposed location that result in **substantial** increases in negative environmental effects that will or are likely to occur;
- Increase in quantity of biomass to be processed at the facility by more than 100 tonnes/day;
- Increase in the number or a change in location and/or equipment (e.g. technology type) of the following project components or infrastructure that result in **substantial** increases in negative environmental effects that will or are likely to occur:
  - Transformer substation(s);
  - Wind turbine(s);
  - Solar inverter/transformer cluster(s);
  - Gas engine generator(s) and flares.

3. Typical Project Change Requirements

The additional work a proponent will need to do when proposing a change will depend on the timing of change and decisions by the Director, and also on the timing of the change.

As described in sections 16.0.1 (changes after a final public meeting but before the issuance of an REA), and 32.3 to 32.5 (changes after an REA is issued) of O.Reg.359/09, the Director has the authority to require a proponent to:

i) update project documents;

ii) provide notification; and,

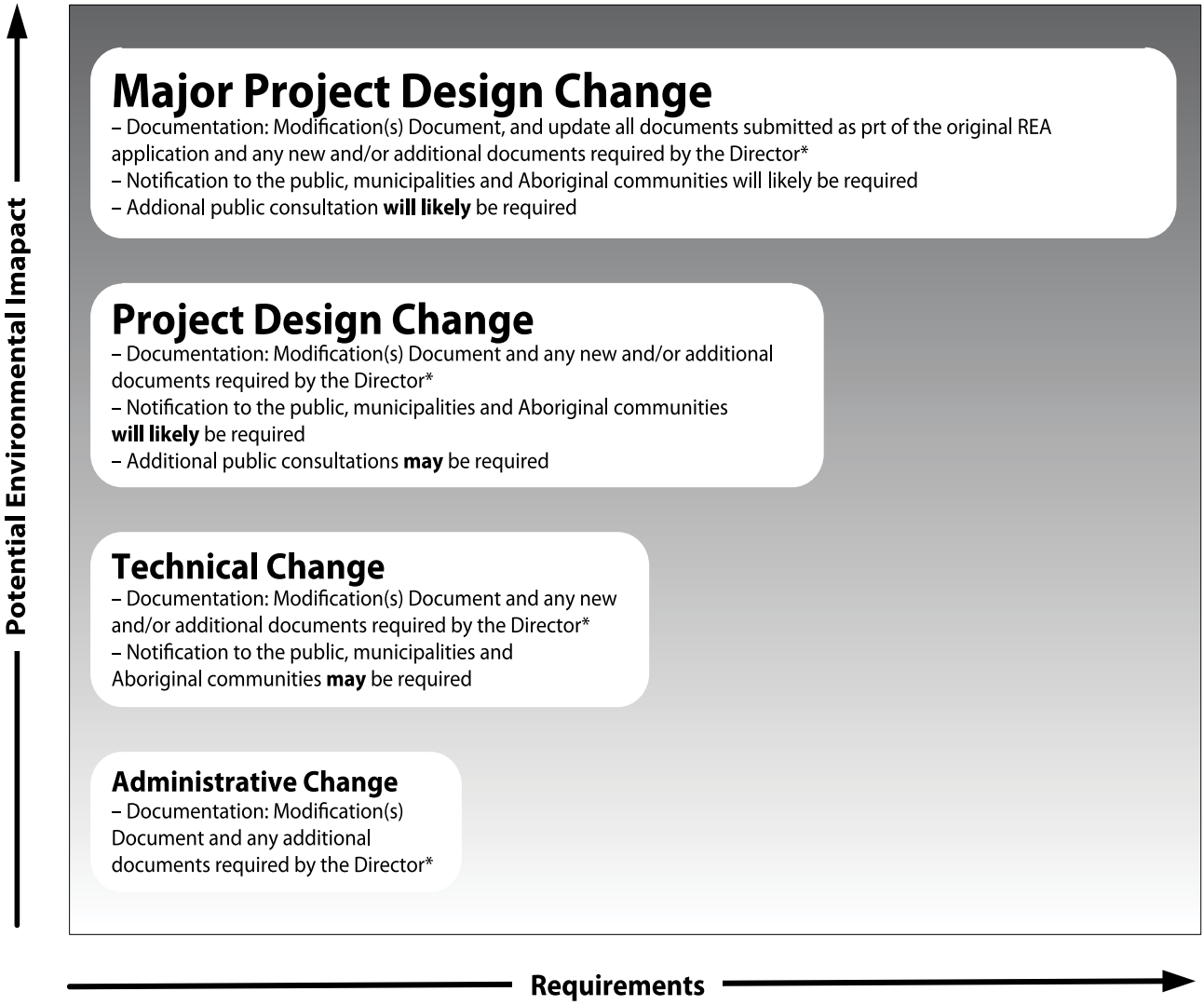
iii) undertake additional consultation including public meetings in response to the proposed changes.

The categories of project change are intended to provide a guide as to what requirements might typically be imposed by the Director where a proponent seeks a change that fits within a particular category. It is also important to note that the process for change will vary depending on whether the change is proposed before or after an approval.

While the project change requirements outlined in sections 3.1 to 3.3 of this chapter are typical of what can be expected, it is important to note that the Director may or may not impose any of the additional requirements noted in sections 16.01, and 32.3 and 32.5; and the Director may impose them when of the opinion that the public would have an inadequate understanding of negative environmental effects of the proposed changes without requirements being imposed. A summary/reference chart can be found in Appendix 6 of this guide.

Diagram 1 illustrates the correlation between the potential increase in negative environmental effects from the change that will or are likely to occur, the typical requirements for documentation, notification or consultation which would be imposed with respect to the proposed project change, and how the categories of changes fit in this spectrum.

Diagram 1: Project Change Spectrum



* This shows typical documentation requirements which would be imposed when a change is proposed after an application has been deemed complete and after the issuance of an REA. If the change is proposed before the original REA has been deemed complete by the MOE, proponents will be required to update all required documentation in respect of the proposed change.

3.1. Documentation

3.1.1. Description and Rationale

See paragraphs 16.01(3)4, 32.3(1)4 and subsection 32.4 of O. Reg. 359/09.

Whether a change is proposed before or after an REA is issued, proponents must provide in writing to the Director a document setting out a written description of and rationale for the proposed change.

This is described in more detail later as the "Modification(s) Document", and may be prepared in an iterative fashion over several versions. It may, depending on the context, summarize, record and propose additional or updated documentation, notification and consultation, and will be utilized in determining if the Director must impose additional requirements with respect to these things. For project changes proposed after the issuance of an REA, this could include one or more reports.

Proponents are encouraged to seek guidance from MNR and MTCS with regard to the potential impact of the

proposed change on natural or cultural heritage work and assessments, respectively, prior to communicating the proposed project change(s) to the MOE.

The initial version of the Modification(s) Document (referenced going forward as the draft Modification(s) Document) will help to inform the Director's choices concerning the imposition of additional formal requirements for documentation, notification and consultation, and will also help to determine into which category of change the proposal fits for the purposes of identifying the requirements which would typically be imposed. It is therefore important to provide as detailed and complete information as is available with respect to the contents of the final Modification(s) Document in the draft version.

The final Modification(s) Document should include:

- A summary of the proposed project change(s), including the reason for the change.
- An explanation of how the desired change will resolve any issue(s) identified, whether there are any new negative environmental effects that will or are likely to occur as a result of the proposed change, and if required, how those effects are proposed to be mitigated.
- A list of each report and study submitted with the REA application and a description of the amendments/updates to each, including:
    - Where reports or studies do not require a material change to the content, explain how the proposed change does not impact the document.
    - Where requirements for notification and/or consultation are imposed by the Director and an REA is under MOE technical review or where an REA has been issued, a copy of the notice and evidence that it was published in accordance with the regulation should be included.
    - Should include a table that shows the page number, section, original text and revised text, where appropriate.
    - A summary of the discussion with MNR and MTCS with respect to the proposed change(s) and, if required, what additional work was imposed by the respective ministries.
    - Any new letter or addendum to the original letter issued by MNR and/or MTCS
- Identification and a summary of new documents that are now required with respect to the proposed project change(s) that were not part of the consultation process.
- A copy of the original site plan, and a revised site plan if it has been changed.

Once a draft Modification(s) Document is submitted to the MOE, a discussion with respect to the proposed change(s) may be initiated between the proponent and the MOE.

Sections 3.1.2, 3.2, and 3.3 below set out requirements which may typically be imposed under section 16.0.1 or Part IV.1 (section 32.1 to 32.5) of O. Reg. 359/09. The Director retains discretion to determine what, if any, requirements to impose in any individual case.

3.1.2. Additional Documentation: Reports, Studies and Written Confirmation/Comments

The typical requirements the Director may impose for updating or creating new documentation will depend on (a) where in the REA process the change is proposed and (b) into what category it fits. Below are the typical requirements that the proponent can expect to undertake.

Where the change is proposed after the final public meeting but before an REA application is deemed complete by the MOE

If changes are proposed to a project **after the final public meeting but before an REA application is deemed complete by the MOE**, a proponent should generally expect that it will be required to:

(a) provide a final Modification(s) Document

(b) revise/update all documents described in paragraphs 1 and 2 of subsection 16 (6). The intent is to accurately reflect the project design inclusive of the proposed change(s) and

(c) provide any new documents that may be required as a result of the proposed project change(s), as part of its REA application or for any exemption it may be seeking.

The extent of substantive revision or updating will depend on the nature of the change. Very minor changes may, for example, only necessitate updates to one report (e.g. the Project Description Report) but more significant changes could lead to extensive revisions to multiple reports and assessments.

Where requirements for notification and/or consultation are imposed by the Director, the Consultation Report must be revised to include:

(a) a copy of the notice under 16.0.1(3)1 or 32.3(1)1, whichever applies, and evidence that it was published in accordance with the regulation, and

(b) a description of the public meeting(s) held as a result of the project change, a summary of comments received at the meeting(s), and a description of how those comments were considered.

Where there is no content change to a specific report/study in respect of the proposed change, the report should be updated to indicate that the proposed change has no impact on the report/study. To increase transparency, proponents should attach an addendum to each report that describes how the proposed change impacts that report and the contents of the report itself must also be revised accordingly.

Where the change is proposed when the REA application under MOE technical review or after the issuance of an REA

If changes are proposed to a project **while the REA application is under MOE technical review or after the issuance of an REA**, proponents will prepare a final **Modification(s) Document**. The final Modification(s) Document is required regardless of the categorization of change, except in certain circumstances with respect to administrative changes.

For proposed administrative, technical and project design changes, it will typically not be necessary to update the documents submitted with the initial REA application, however, the Director may request that certain reports be updated as a result of the proposed change(s), regardless of categorization (i.e. Archaeological Assessment, Noise Assessment Report). In certain cases, the Director may impose the requirement for the proponent to update all documents submitted as part of the initial REA application.

For major project design changes, in addition to the Modifications(s) Document, proponents should expect that the Director will impose the requirement that all original documents that were provided with the initial REA application submission, as described in paragraph 1 and 2 of subsection 16(6) of O. Reg 359/09, must be updated. Where requirements for notification and/or consultation are imposed by the Director, the Consultation Report must be revised to include:

(a) a copy of the notice under 16.0.1(3)1 or 32.3(1)1, whichever applies, and evidence that it was published in accordance with the regulation, and

(b) a description of the public meeting(s) held as a result of the project change, a summary of comments received at the meeting(s), and a description of how those comments were considered.

Additionally, some proposed changes, depending on the nature, may necessitate new reports that were not previously required or submitted as part of the initial REA application. These new reports should also be provided with and documented in the Modification(s) Document, regardless of where in the process the proposed change is requested.

Typically, proponents should expect to be required to make all updated reports/studies in respect of the proposed changes to the project and any new reports/studies prepared in respect to the proposed change available to the public as described in paragraphs 16.0.1 (3) 3 and 32.3 (1) 4, as appropriate, of O. Reg.359/09 for a period of time specified by the Director. The draft Modification(s) Document is expected to be included in the documents made available to the public.

Determining impacts to the Natural and Cultural Heritage Documentation

When considering project changes, proponents must also determine if further work is required in addition to the original natural heritage, archaeological and cultural heritage assessments and whether these assessment reports will need to be revised, or in the case where one was not previously done, whether one is required. For example, moving part of the project to within the setback of a significant natural heritage feature (e.g. significant woodland) would require the preparation of an Environmental Impact Study Report if the original Project Location was not within the setback area. Proponents are strongly encouraged to contact the MNR or the MTCS to determine impacts to the natural heritage, archaeological and/or cultural heritage assessments, respectively, prior to communicating proposed project changes to the MOE.

Natural Heritage

If the proponent has already obtained written confirmation and comments from MNR, the proponent should contact MNR to discuss whether the Natural Heritage Assessment (NHA) and the Environmental Effects Monitoring Plan (EEMP) will be affected by the proposed project changes.

Proponents should provide MNR with the draft Modification(s) Document, and identify whether, and if so how, any previous studies, evaluations and reports associated with the NHA would be affected as a result of the proposed change. Once the proponent has provided MNR with all necessary information, MNR will assess the extent of the proposed changes to determine if further work is necessary to meet the NHA requirements of the REA regulation (e.g. field studies).

After review, if MNR determines that further work is not required, the applicant will be provided with a letter which states that nothing further is required beyond the original confirmation and comments.

Where MNR determines there is a need for further work, applicants will be required to provide MNR with the necessary information, studies, or reports to ensure that the requirements of the REA regulation are met. Once the requirements are met, MNR will provide the applicant with an addendum to the original confirmation and comments, which is specific to the proposed project changes. The addendum must be submitted to MOE at the time of REA application, along with the original confirmation and comments[2].

Cultural Heritage

If the proponent has already obtained written confirmation and comments from MTCS, the proponent should contact its consultant archaeologist and/or heritage consultant to discuss the impact of the proposed project changes on Heritage and/or Archaeological Assessments. Consultants will determine if further assessment(s) is required, and can confirm this in discussion with MTCS.

If MTCS has previously provided written comments letters with respect to the Archaeological Assessment and further assessment is now required, MTCS will issue an additional written comment letter for the new assessment report.

If MTCS has previously provided a written comments letter with respect to the Heritage Assessment and further assessment and revisions to the report are required, MTCS will provide a revised written comments letter. If the consultant determines that the project changes will not result in changes to the conclusions or recommendations of reports, MTCS will re-confirm in writing that the original written comments letter is still valid.

3.2. Notification

This section deals exclusively with the typical requirements for notification which would likely be imposed on the proponent under paragraph 16.0.1 (3)1 or 32.3 (1)1 of O.Reg.359/09. The typical notification requirements outlined below are applicable to changes proposed after the final public meeting and/or after the issuance of an REA, unless otherwise clarified.

Proposed administrative changes will typically not require notification to the public, municipalities and Aboriginal communities.

Proponents proposing technical changes may be required to notify the public, municipalities and Aboriginal communities of the proposed change(s) to the project. This requirement may be imposed where the Director's opinion is that the public requires additional notification to acquire an adequate understanding of negative environmental effects that will or are likely to occur as a result of the proposed change.

Proposed project design or a major project design changes will typically require notification to the public, municipalities and Aboriginal communities.

If the requirement for notification is imposed, the notice of project change must be in a form approved by the Director (per paragraphs 16.0.1(3)1 and 32.1(1)1). Templates for a notice of a proposed project change 1) prior to the issuance of an REA and 2) for an approved REA project, can be found on the MOE's website and in Appendix 3 of this guide. The notice of proposed project change(s) must include the following information:

- Renewable Energy Approval number (only applicable where an REA has already been issued)
- OPA Reference Number
- Name and contact information of the applicant;
- A brief description of the project;
- A map identifying the project location;
- A description of the proposed change(s) and rationale for the change(s).
- A description of where information and documentation regarding the proposed change(s) can be located.

[2] MNR may also provide the applicant with an addendum to the original confirmation and comments where no further work is required; however, the applicant's proposed changes result in a reduction of monitoring requirements (e.g. infrastructure removed from project design results in fewer EEMP monitoring commitments).

The notice must be published and circulated in accordance with paragraph 16.0.1(3)1 or 32.3(1)1 of O.Reg.359/09, whichever applies. These notifications constitute the minimum requirements for notice. Proponents are encouraged to give copies of the notice to other potentially interested persons or groups.

3.3. Consultation

This section deals exclusively with the typical requirements with respect to consultation, in accordance with the directions given under whichever of subsection 16.0.1 (3) or 32.3 (1) of O.Reg.359/09 applies. The following are consultation requirements which may be typically imposed where a change is proposed after the final public meeting and/or after the issuance of an REA however, the Director has the authority to request such activities depending on the potential for the public to have an inadequate understanding of negative environmental effects that will or are likely to occur of the proposed change.

Public meetings will typically not be required for proposed administrative or technical changes.

Proponents proposing project design or major project design change(s) will typically be required to hold at least one additional public meeting. Proponents are encouraged to hold more meetings if there is a great degree of interest in the project or if negative environmental effects that will or are likely to occur as a result of a proposed change are particularly substantial. It is important to note that the Director also has the authority to require additional public meetings where he/she is of the opinion that failure to do so might result in an inadequate understanding by the public of negative environmental effects of the proposed change. The typical consultation requirements would be those described in section 16.0.1 and 32.3 of O.Reg.359/09 concerning public meeting(s), including provision of notice at least 30 days prior to the meeting.

3.3.1. Notification of Proposed Change and Public Meeting(s)

The notice of proposed project change(s) under whichever of paragraph 16.0.1(3)1 or 32.3(1)1 of O.Reg.359/09 applies must be in a form approved by the Director (per paragraphs 16.0.1(3)1 and 32.1(1)1). To prevent confusion, the notice must include a statement that the additional public meeting is being held as a result of proposed changes to the project. Templates for a notice of a proposed project change and public meeting 1) prior to the issuance of an REA and 2) for an approved REA project, can be found on the MOE's website and in Appendix 3 of this guide. The notice of proposed project change(s) and public meeting must include the following information:

- Renewable Energy Approval number (only applicable where an REA has already been issued)
- OPA Reference Number
- Name and contact information of the applicant;
- A brief description of the project;
- A map identifying the project location;
- A description of the proposed change(s) and rationale for the change(s);
- A description of where information and documentation regarding the proposed change(s) can be located;
- The date, time and location of a meeting where members of the public may attend to obtain further information regarding the proposed project change and provide comments to the proponent.

3.3.2. Conducting Public Meeting(s) Concerning a Proposed Project Change

In general, proponents required to hold a public meeting should expect to also be required to make all updated and new reports/studies in respect of the proposed changes to the project available to the public (i.e. the Director is likely to impose a requirement under whichever of paragraph 16.0.1 (3) 3 and 32.3 (1) 4 of O. Reg.359/09 applies). The draft Modification(s) Document is expected to be included in the documents made available to the public. Please refer to section 3.1 of this chapter for documentation requirements.

The public meeting should be planned, scheduled and located as described in paragraph 16.0.1 (3) 3 or 32.3 (1) 3, as appropriate, of O.Reg.359/09.

At the public meeting, it is strongly recommended that the proponent provide a detailed description and explanation of the project change(s) and the rationale for the change. If the changes to the project are related to, or may have an impact on, concerns and comments previously raised during the consultation process, this should be discussed at the meeting as well. While the focus of the meeting should be the proposed change(s) to the project and how it impacts the original reports and studies, proponents are well advised to be prepared to address questions regarding all aspects of the project.

4. Making Changes to a Project Prior to the Issuance of an REA

This section describes the process for proponents seeking to make a change(s) to a proposed renewable energy generation facility before an REA has been issued, either prior to an REA application being deemed complete or where an application is under MOE technical review. Section 3 of this chapter should be referred for documentation, notification, and consultation requirements. Readers should refer to section 2 for details concerning categorization of proposed change and to section 3 of this chapter for details concerning typical documentation, notification and consultation requirements.

To save time and help avoid delays, proponents are encouraged to bring forward and notify the public, municipalities and Aboriginal communities of changes to a project before the final public meeting, particularly if the change substantially differs from information previously made publicly available.

4.1. Making Changes Prior to the Issuance of an REA

See section 16.0.1 of O. Reg. 359/09.

A described in section 3.1.1 of this chapter, proponents proposing changes to their project must provide a draft Modification(s) Document for the proposed change with sufficient information to allow the Director to categorize the proposed change. Once the Director has obtained sufficient information with regard to the proposed change, the proponent will be advised of the category of project change and give notice of documentation, notification, and/or consultation requirements, as described in section 3 of this chapter.

Once requirements have been completed, the proponent may then submit the appropriate documentation, as described in section 3.1 of this chapter.

Upon receiving the application or documentation, the MOE will conduct a completeness check to determine if it can be accepted for review. If the application or documentation is not complete, it may be returned to the applicant with a list of deficiencies that must be addressed prior to the application or documentation being resubmitted. If the application or documentation is determined to be complete, the applicant will be notified and MOE technical review will begin, continue or resume, as appropriate.

Proposing Changes prior to an Initial REA Application Being Deemed Complete

When a proponent proposes changes after submitting an initial REA application but prior to it being deemed complete, it will need to submit any required documentation, updated and/or added to in respect of the proposed change(s), to the MOE. In this case, proponents will not be required to re-submit an REA application for a project change.

In the case where a proponent seeks to make changes after the final public meeting but an application has not yet been submitted to the MOE, it is required to submit an application for an initial REA (not for a project change), required documentation, updating in respect of the proposed change(s), and applicable fee to the MOE.

Diagram 2 describes the typical change process and requirements that proponents should expect to undertake when proposing changes to a project after submitting an REA application but prior to an initial REA application submission being deemed complete. While the diagram 2 and section 3 of this chapter describes the typical process and requirements, it is important to note that in each case the Director has

discretion whether and what requirements may be impose concerning documentation, notification and consultation.

Proposing Changes once an REA Application has Been Deemed Complete and is Under MOE Technical Review

If changes are proposed when an REA application is under MOE technical review, it is not necessary to re-submit the application form, however proponents will need to submit any required documentation, as described in section 3.1 of this chapter.

Diagram 3 describes the typical change process and requirements that proponents should expect to undertake when proposing changes to a project after submitting an REA application but prior to an initial REA application submission being deemed complete. While the diagram 3 and section 3 of this chapter describes the typical process and requirements, it is important to note that in each case the Director has discretion whether and what requirements may be imposed concerning documentation, notification and consultation.

4.2. Impact on Service Standards

Changes proposed to a project after an initial REA application has been deemed complete by the MOE but prior to the issuance of an REA could have an effect on service standards.

For administrative changes, if the appropriate documentation has been provided, the MOE technical review will continue and no impact to service standards is expected.

For technical or project design changes, the MOE technical review will continue, if possible, or may be stopped; and if so, this period of time will not be counted for the purposes of the MOE's 6 month service standard for reaching a decision on the REA while the proponent completes the appropriate project change process.

For major project design changes, depending on the scope of the change and the degree of negative environmental effects the change will or is likely to cause, the clock may be stopped or the application may be returned to the proponent while the proponent completes the appropriate project change process. Where an application is returned, the clock on the MOE's 6 month service standard for reaching a decision on the application will start (i.e. reset to day 1) once the application is re-submitted and deemed complete.

4.3. Environmental Registry

Changes proposed while an application is under MOE technical review may be subject to additional Environmental Registry postings. Changes proposed prior to an REA application being deemed complete will not be subject to additional Environmental Registry postings beyond those required in the normal REA process.

Additional Environmental Registry postings for administrative and technical changes are unlikely, however, will be assessed on a case by case basis. If approved, the MOE will notify the public of the change in the Decision Notice that will be posted on the Environmental Registry when a decision has been made.

For project design changes, it is expected that the MOE will either notify the public of the change in the Decision Notice, as described above or post a Proposal Notice of the amendment/change to the registry for a minimum 30 day public comment period. If the MOE posts a Proposal Notice, it will include a statement that the proposed project has been changed and that a description of the change(s) can be found in the Modification(s) Document. A proponent will be expected to post the Modification(s) Document and, if applicable, must post **all documents that were required to be revised by the Director**, and any new documents prepared in respect to the proposed project change, on its website, if one exists, within 10 days of the proposal notice being posted on the Environmental Registry.

For major project changes, it is expected that the MOE will post a Proposal Notice of the amendment/change for a minimum of 30 day public comment period. The contents of the notice, as described above, remain the same. A proponent is expected to post the Modification(s) Document and must also post **all revised documents submitted as part of their application** and any new documents prepared in respect to the proposed project change, on its website, if one exists, within 10 days of the proposal notice being posted on the Environmental Registry.

For further details regarding the MOE's technical review process, Environmental Registry postings, Director's decisions and third-party hearing provisions, readers should refer to Chapter 1 of this guide.

Diagram 2: Typical change process prior to an REA application being deemed complete

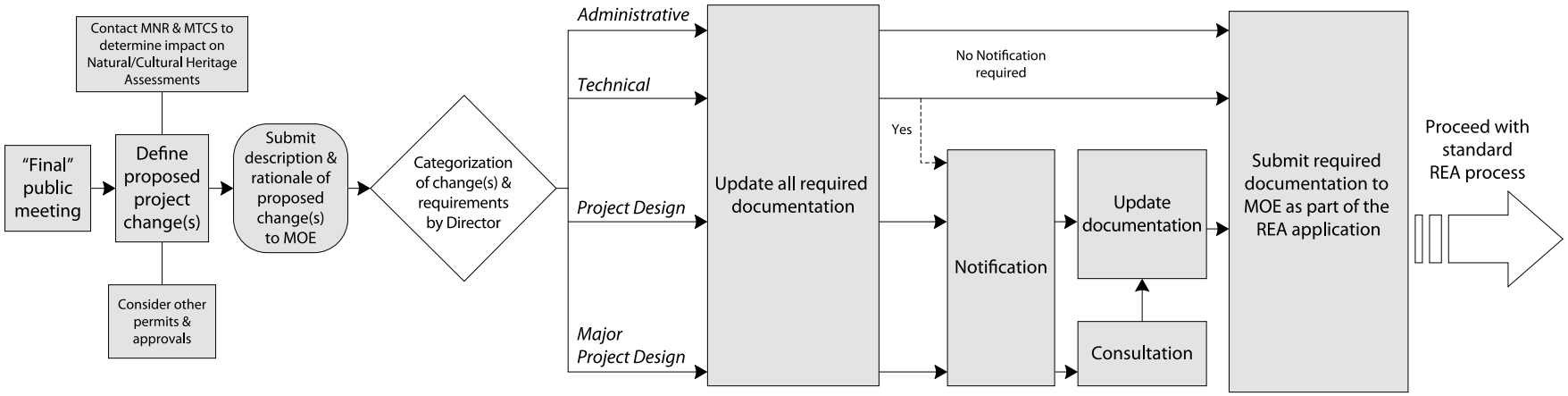
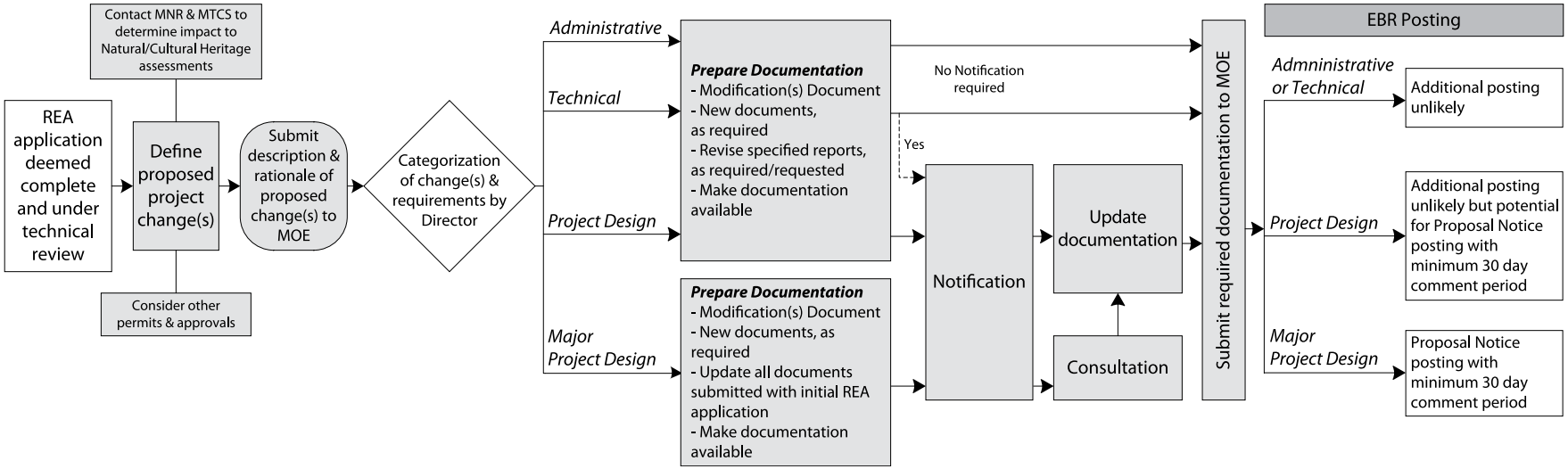


Diagram 3: Typical change process during MOE technical review



5. Making Changes to a Project after the Issuance of an REA or Altering the Terms or Conditions of an REA

This section describes the typical process and requirements that a proponent can expect when proposing changes to a renewable energy project after an REA has been issued, or seeking to have the terms or conditions of the REA altered, as described in section 32.1 of O. Reg. 35/09. These requirements apply regardless of whether construction has commenced or not, including if the facility has been fully constructed.

It is important to note that if a proponent intends to change a project that had been previously issued an REA, it may still engage in the aspects of the approved project that have not changed. However, a proponent is not authorized to proceed with the proposed changes until it has complied with the change process described in this section and an amended or new REA has been issued by the MOE in respect of these changes. For example, if a proponent wishes to add turbines to an already approved wind facility, it may still construct or install the original turbines that were previously approved as long as it does so in accordance with the terms and conditions of the REA that had been previously issued. However, a proponent is not permitted to construct or install the additional turbines until an amended or new REA addressing these additional turbines has been issued.

It is strongly recommended that a proponent of a renewable energy project should make every effort possible to ensure that it can construct its project in a manner that is consistent with the information contained in the reports and studies prepared as part of the initial application for an REA. The description of operational flexibility at the beginning of this chapter and in Chapter 1 of this guide provides advice and guidance on how proponents can incorporate a limited amount of flexibility with respect to project parameters into their REA application so as to avoid the need to make project changes at the construction stage.

Nevertheless, significant periods of time can elapse between the initial preparation of reports and studies for an REA application and the start of project construction. It is therefore not unreasonable to expect that certain changes are required to be made as to how the project is proposed to be engaged. For example, certain materials and equipment originally planned to be used as part of the facility may no longer be available. Conversely, more advanced technology, better construction materials or more efficient operating practices may have become available to the project proponent since the original project was approved. It is also possible that external environmental or land-use conditions in the area surrounding the Project Location may have changed, thus requiring aspects of the project to be revisited. For example, changes in nearby residential or commercial development patterns may warrant revisions to where road access is provided at a facility. The start of construction can also reveal previously unknown environmental factors such as the presence of artefacts that were not discovered during the project's original archaeological assessment.

In situations where a change is required that is outside operational flexibility and where changes to a project that has received an REA are unavoidable, a proponent will be required to follow Part IV.1 of O. Reg. 359/09.

5.1. Change Process After the Issuance of an REA

In this situation, a proponent must submit an application using the REA application form to request a proposed change to a project and/or alter the terms or conditions of an existing REA. The application form can be found on the MOE's website. When completing the application form, proponents must clearly indicate in section 2.1 of the form that it is for an amendment to an existing REA and provide the approval number.

Typical documentation, notification, and/or consultation which may be required by the Director in a notice under section 32.3 or 32.4 is outlined in section 3 of this chapter. These are outlined to provide proponents with an expectation of the typical requirements so they may adequately complete them prior to submitting an

application for a proposed project change to the MOE. This is intended to help mitigate and/or avoid altogether the need for the Director to issue a notice under 32.3 and 32.4 of O. Reg. 359/09.

Thus a proponent seeking a change in this situation is strongly encouraged to speak with the Environmental Approvals Access and Service Integration Branch, Service Integration Unit of the MOE before submitting its application under section 32.2 if clarification or further guidance is required in determining the category of proposed change(s) and in confirming what additional documentation, notification and/or consultation would typically be required. This may mitigate the potential need to go back and complete additional requirements after submission. The MOE may also, at this time, request a draft Modification(s) Document for the proposed change(s) to assist in discussions with respect to the anticipated categorization of the proposed change(s).

Proponents are also encouraged to seek guidance from MNR and MTCS to determine impacts to the original natural heritage, archaeological and/or cultural heritage assessments, respectively, prior to contacting the MOE.

Once the work necessary for an application under section 32.2 has been completed – it is strongly recommended that this include the typical requirements for a project change in the category proposed - the proponent may then submit the application form, appropriate documentation as described in section 3.1 of this chapter, and applicable fee to the MOE (see section 6 of this chapter for information on fees).

As required in section 32.2 and described in section 3.1.1 of this chapter, the documentation must include the final Modification(s) Document (this could be one or more reports) that provides sufficient detail to allow the Director to categorize the proposed change.

If no additional requirements are imposed by the Director under section 32.3 or 32.4, the MOE will conduct a completeness check to determine if the application can be accepted for review. If the documentation is not complete, it may be returned to the applicant with a list of deficiencies that must be addressed prior to the documentation being resubmitted. If the documentation is determined to be complete, the applicant will be notified and the MOE technical review will begin.

Diagram 4 describes the typical change process and requirements that proponents should expect to undertake when proposing changes to a project after submitting an REA application but prior to an initial REA application submission being deemed complete. While the diagram 4 and section 3 of this chapter describe the typical process and requirements, it is important to note that in each case the Director has discretion whether and what requirements may be imposed concerning documentation, notification and consultation.

5.2. Environmental Registry

All changes proposed to a project after the issuance of an REA will likely trigger additional Environmental Registry postings. The nature of the posting will differ based on the proposed change categorization.

Regardless of the type of posting, it will include a statement that the project is proposing a change and that a description of the change(s) can be found in the Modification(s) Document and identify any revised and/or new reports/studies, if applicable. A proponent is expected to post the Modification(s) Document and all documents that were revised or required to be revised by the Director, and any documents prepared in respect to the proposed project change, on its website, if one exists, within 10 days of the proposal notice being posted on the Environmental Registry.

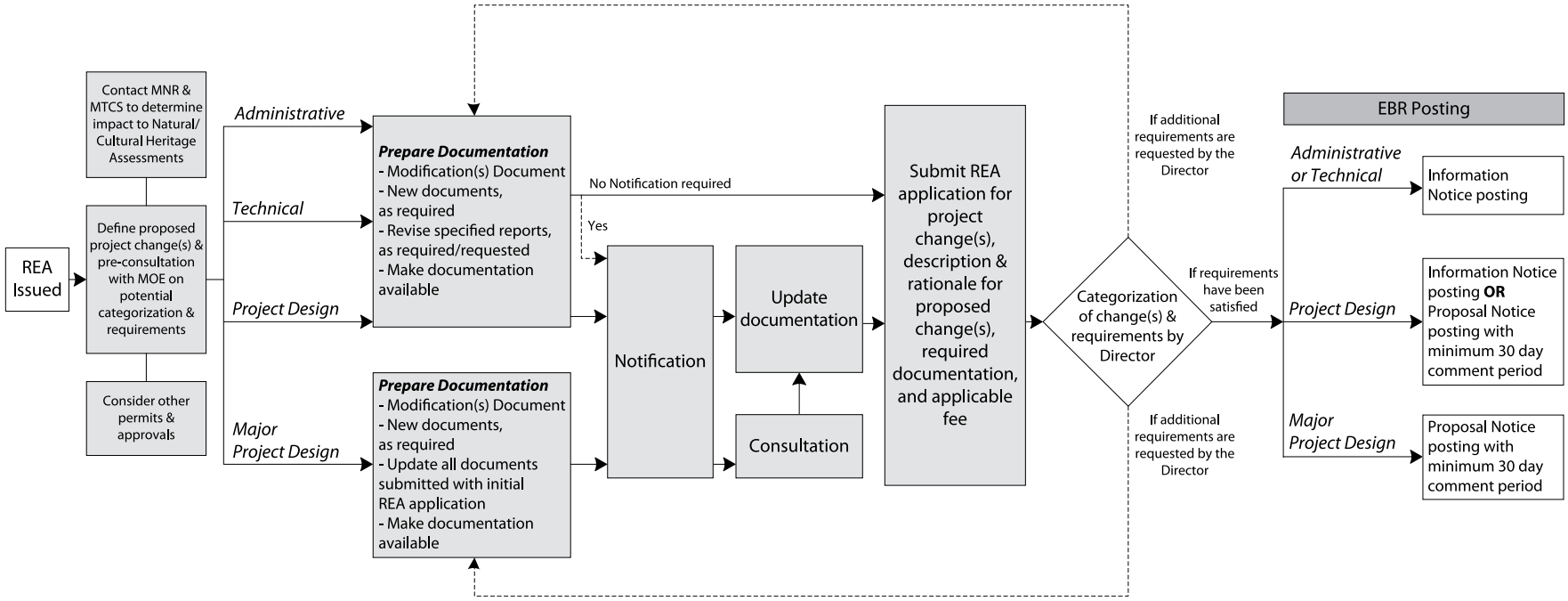
For proposed administrative and technical changes, it is expected the MOE will post an Information Notice to the Environmental Registry to notify the public of the proposed change and the decision.

For proposed project design changes, it is expected the MOE will either post a Proposal Notice for a minimum of 30 day public comment period or an Information Notice to the Environmental Registry, depending on the nature of the change.

For major project changes, it is expected the MOE will post a Proposal Notice of the proposed change for a minimum of 30 day public comment period. The contents of the notice, as described above, remain the same.

For further details about the MOE's technical review process, Environmental Registry postings, Director's decisions and third-party hearing provisions, readers should refer to Chapter 1 of this guide.

Diagram 4: Typical change process after the issuance of an REA



6. Fees

Applicants requesting a change(s) to their project are required to submit an additional fee along with their REA application.

If a major project design change is proposed while the application is undergoing MOE technical review, depending on the type of facility, a portion of the application fee will be returned, if the application is considered to be incomplete. The proponent will be required to pay the full amount for that class of facility when the application is resubmitted.

Applicants proposing to make changes to a project after the issuance of an REA that go beyond altering the terms or conditions of an REA and require the Director to revoke and replace an existing REA are required to pay the full fee for that class of facility when the new application is submitted.

More information on application fees for REAs can be found in the following MOE publications:

"*Renewable Energy Approval (REA) Fees*," 2011 Publication #8139e

"*FAQs on REA Fees and Refunds*," 2011 Publication #8141e

These publications can be obtained from the MOE's website.

Chapter 11

A good neighbour approach: tips for applicants

1. Being a Good Neighbour

The preceding chapters of this guide explain Ontario's rules for renewable energy projects under the Renewable Energy Approval (REA) regulation (O. Reg. 359/09). These requirements provide the tools for energy developers to be good neighbours in their communities. While this guide is primarily focused on helping applicants understand and meet their regulatory requirements for a complete application, it should be the goal of every applicant for an REA to develop a strategy for enhancing a long lasting positive relationship with local residents. Most of these projects will be in operation for over 20 years, so it's critical that the public, municipalities and applicants get off on the right foot.

Rules in the regulation require applicants to prepare assessments and environmental reports to describe how the project will be undertaken to protect human health, the environment, as well as cultural and natural heritage resources. They are also required to develop plans for ongoing communications with the public both in response to complaints and in the case of emergencies. The minimum requirements provided by the Ministry of the Environment (MOE) also include holding at least two public meetings (except small wind projects and on farm bio-energy facilities) and sharing reports and project plans with the municipality, the public and Aboriginal communities. However, meeting the minimum requirements may not be enough to be considered a good neighbour in some communities. Where a community shows a high interest or concern with an incoming renewable energy project, the applicant should consider going beyond the minimum requirements to help facilitate a positive relationship with the community. Below are some things that applicants should consider.

You can be a good neighbour by:

- Engaging the public, municipalities and Aboriginal communities - early and often. While Ontario's regulations have minimum consultation requirements, the more you engage the community, the better neighbour you will be.
- Getting involved in local community projects. Getting the community involved in the development will lead to greater understanding and can help generate support. You might consider establishing a representative group or "Public Liaison Committee." Having a group that represents local residents, the local municipality and other interested groups early demonstrates your intent to establish long-term positive relations and encourages local participation in the development process.
- Making it easy for community members to express and resolve their concerns. One of the ways you can do this is by establishing a formal complaint resolution process and making it available early in the development process. There are rules in the regulation that require developers to have a plan to respond to the public and to provide information regarding the activities occurring at the project location.
- Eliminating and/or minimizing impacts of the operation on the community by:
    - Responding promptly to complaints;
    - Having agreements on operation in place, e.g. voluntary slow-downs or shut-downs under specified conditions;
    - Working with the community to identify locally valued resources and take measures to mitigate impacts;
    - Considering provisions for adjusting a project's setbacks/locations or operation practices (e.g. times of operation, turbine speeds) if a sensitive or concerned receptor (human or ecological) is in the area;
    - Ensuring that tourism implications are considered, both in the location of the project and the project as a whole; and
    - Considering visual barriers between receptors and a project (e.g. tree buffer or berm between road and solar farm).

- Keeping the lines of communication open beyond the development and approvals stages of a project. Establishing continuing dialogue with the local residents for the entire project lifecycle demonstrates an ongoing desire to be a good neighbour by:
    - Maintaining a website and posting meetings, project reports and notification of any proposed changes to the facility including upgrades and maintenance to ensure the community is aware of workers in the area and reasons for their presence;
    - Responding to complaints in writing and demonstrating how issues have been addressed;
    - Maintaining customer service standards (inquiry/response times, complaint resolutions, etc.) and posting information publicly;
    - Conducting site visits at appropriate times so that the community can see how the project is being maintained and how safety precautions are being taken; and
    - Providing ongoing information sessions and educational opportunities for local community groups/schools.
- Consider joining an industry association; many developers are members of respective industry associations and commit to codes of conduct and ethics.
- Pro-actively providing a code of ethics to the community can help demonstrate commitment to good environmental and development practices.
- Documenting a Good Neighbour Approach in an agreement and making it publicly available for the local community to view.

If there are public complaints about an existing project in operation, the ministry will work with the developer to help them become a good neighbour. You can find many more resources to help be a good neighbour on the MOE's webpage:

http://www.ene.gov.on.ca/environment/en/subject/renewable_energy/STDPROD_087211.html

Appendices

Appendix 1: REA Requirement Summary Tables for Renewable Energy Facilities by Technology

Solar

		Class 1	Class 2	Class 3
		Any Location ≤ 10 kW	On Roof/Wall > 10 kW	On Ground > 10 kW
Plans & Reports	No REA	X	X	
	REA Required			X
	Project Description Report			X
	Construction Plan Report			X
	Design and Operations Report			X
	Decommissioning Plan Report			X
Consultation	Notice of Proposal			X
	Meeting Notice(s)			X
	Public Meetings			X
	Municipal Consultation			X
	Aboriginal Consultation			X
	Consultation Report			X
Cultural Heritage	Protected Properties			X
	Heritage Resources			X
	Archaeological Resources			X
Natural Heritage / Water Bodies	Natural Heritage Assessment			X
	Water Assessment			X
Additional Technical Reports	Site-specific Noise Study Report			X

Wind

		Class 1	Class 2	Class 3	Class 4		Class 5
		Turbine ≤ 3kW	Turbine > 3 < 50kW	Turbine ≥ 50 kW and < 102 dBA	Turbine ≥ 50 kW and with ≥ 102 dBA	Turbine ≥ 50 kW >107 dBA	Off-Shore* Turbine Facility
Plans & Reports	No REA	X					Off-shore requirements to be considered following further scientific research. See Section 1.2. of Chapter 1 for more information.
	REA Required		X	X	X	X	
	Project Description Report		X	X	X	X	
	Construction Plan Report			X	X	X	
	Design and Operations Report			X	X	X	
	Decommissioning Plan Report			X	X	X	
Consultation	Notice of Proposal		X	X	X	X	
	Meeting Notice(s)			X	X	X	
	Public Meetings			X	X	X	
	Municipal Consultation			X	X	X	
	Aboriginal Consultation			X	X	X	
	Consultation Report			X	X	X	
Cultural Heritage	Protected Properties		X	X	X	X	
	Heritage Resources			X	X	X	
	Archaeological Resources		See Note 1	X	X	X	
Natural Heritage / Water Bodies	Natural Heritage Assessment			X	X	X	
	Water Assessment			X	X	X	
Additional Technical Reports	Specifications Report, Class 2 Wind		X				
	Specifications Report, not Class 2			X	X	X	
	Wind Farm Noise Report			See Note 2	Maybe+	X	
Setbacks	Parcel Boundary Setback			Hub height	Hub height	Hub height	
	Lower Parcel Boundary Setback with Study			Blade + 10m	Blade + 10m	Blade + 10m	
	Road/railway right of way setback			Blade + 10m	Blade + 10m	Blade + 10m	
	Minimum noise setback				550 m	550 m	

* In direct contact with surface water other than in a wetland.

\+ An applicant may prepare a Wind Farm Noise Report in order to determine site-specific setback distances when multiple turbines (or those with a sound power level > 102 dBA) are proposed. If a Wind Farm Noise Report is not prepared, the turbines must meet regulated setback distances given in the table in section 55 of O. reg. 359/09. These table standards range from 550 m to 1.5 km.

Note 1: Applicants for Class 2 wind facilities are exempt from consideration of heritage resources other than protected properties at the project location. However, an archaeological assessment may be required depending on the specific characteristics of the project location, consistent with section 21 of O.Reg. 359/09.

Note 2: While not a strict requirement applicants proposing Class 3 wind facilities are recommended to complete a wind farm noise report in order to describe potential negative environmental effects due to noise.

Bio-energy
(Anaerobic Digestion, Biofuel, Biogas)

			Class 1 AD Facility		Class 2 AD Facility		Class 3 AD Facility	Biogas	Biofuel
		NMA approved On-farm Anaerobic Digesters (AD) and no EPA waste certificate of approval	Farm-Based AD ≤500 kW	Farm-Based ADs >500 kW	Farm-Based AD ≤500 kW	Farm-Based AD >500 kW	Non-farm AD		
Plans & Reports	No REA	X							
	REA Required		X	X	X	X	X	X	X
	Project Description Report		X	X	X	X	X	X	X
	Construction Plan Report		X	X	X	X	X	X	X
	Design and Operations Report		X	X	X	X	X	X	X
	Decommissioning Plan Report		X	X	X	X	X	X	X
Consultation	Notice of Proposal		X	X	X	X	X	X	X
	Meeting Notice(s)						X	X	X
	Public Meetings						X	X	X
	Municipal Consultation		X	X	X	X	X	X	X
	Aboriginal Consultation		X	X	X	X	X	X	X
	Consultation Report		X	X	X	X	X	X	X
Cultural Heritage	Protected Properties		X	X	X	X	X	X	X
	Heritage Resources						X	X	X
	Archaeological Resources		See Note 1	See Note 1	See Note 1	See Note 1	X	X	X

Note 1: Class 1 and 2 anaerobic digestion facilities are exempt from consideration of heritage resources other than protected properties at the project location. However, an archaeological assessment may be required depending on the specific characteristics of the project location, consistent with section 21 of O.Reg. 359/09.

Bio-energy
(Anaerobic Digestion, Biofuel, Biogas)

(continued)

			Class 1 AD Facility		Class 2 AD Facility		Class 3 AD Facility	Biogas	Biofuel
		NMA approved On-farm Anaerobic Digesters (AD) and no EPA waste certificate of approval	Farm-Based AD ≤500 kW	Farm-Based ADs >500 kW	Farm-Based AD ≤500 kW	Farm-Based AD >500 kW	Non-farm AD		
Natural Heritage / Water Bodies	Natural Heritage Assessment		X	X	X	X	X	X	X
	Water Assessment		X	X	X	X	X	X	X
Additional Technical Reports	Emissions Summary and Dispersion Modelling Report						X	X	X
	Noise Study Report						X	X	X
	Odour Study Report						X	X	X
	Effluent Management Plan Report				X	X	X		
	Hydrogeological Assessment Report				See Note 2	See Note 2	X		
	Surface Water Assessment Report				See Note 2	See Note 2	X		
	Financial Assurance Estimate				X	X	X		
Setbacks & Mitigation	Setback from Odour Receptors		250 m	250 m	250 m	250 m			
	Lower Setback with Mitigation / Additional Studies		See Note 3	See Note 3	See Note 3	See Note 3			

Note 2: Class 2 anaerobic digestion facilities must submit a hydrogeological assessment when the prescribed construction and siting standards for nutrient storages in section 10 or 13 of the General Regulation O. Reg. 267/03 under the Nutrient Management Act, 2002 do not apply.

Note 3: Class 1 and 2 anaerobic digestion facilities may be sited closer than the 250 m setback to odour receptors if the following apply: For facilities ≤500 kW, a 125 m setback can be applied if the facility adheres to prescribed mitigation requirements given in section 47 of O. Reg. 359/09. However, all Class 1 and 2 anaerobic digestion facilities may also use alternative setback distances if they are supported by the submission of an ESDM report, noise study report, and odour study report as part of the REA application.

Bio-energy
(Thermal Treatment)

		Class 1		Class 2	Class 3
		Woodwaste Only on a farm	Woodwaste Only non-farm	Not only woodwaste on a farm	Not only woodwaste non-farm
Plans & Reports	No REA				
	REA Required	X	X	X	X
	Project Description Report	X	X	X	X
	Construction Plan Report	X	X	X	X
	Design and Operations Report	X	X	X	X
	Decommissioning Plan Report	X	X	X	X
Consultation	Project Notice	X	X	X	X
	Meeting Notice		X		X
	Public Meetings		X		X
	Municipal Consultation	X	X	X	X
	Aboriginal Consultation	X	X	X	X
	Consultation Report	X	X	X	X
Cultural Heritage	Protected Properties	X	X	X	X
	Heritage Resources		X		X
	Archaeological Resources	See Note 1	X	See Note 1	X
Natural Heritage / Water Bodies	Natural Heritage Assessment	X	X	X	X
	Water Assessment	X	X	X	X
Additional Technical Reports	Emissions Summary and Dispersion Modelling Report (ESDM)		X		X
	Noise Study Report		X		X
	Odour Study Report				X
	Effluent Management Plan Report	X	X	X	X
	Hydrogeological Assessment Report			See Note 2	X
	Surface Water Assessment Report	X	X	X	X
	Financial Assurance Estimate			X	X
Setbacks & Mitigation	Setback from Odour and Noise Receptors			250 m	
	Lower Setback with Studies			See Note 3	

Note 1: Applicants for Class 1 thermal treatment facilities located at a farm operation and Class 2 thermal treatment facilities are exempt from consideration of heritage resources other than protected properties at the project location. However, an archaeological assessment may be required depending on the specific characteristics of the project location, consistent with section 21 of O.Reg. 359/09.

Note 2: Class 2 thermal treatment facilities must submit a hydrogeological assessment when the prescribed construction and siting standards for nutrient storages in section 10 or 13 of the General Regulation O. Reg. 267/03 under the Nutrient Management Act, 2002 do not apply.

Note 3: Class 2 thermal treatment biomass storage areas can be sited closer than the 250 m setback to odour receptors provided an odour study is submitted. Class 2 thermal treatment generating units can be sited closer than the 250 m setback to noise receptors provided an ESDM and a noise study are submitted.

Appendix 2: Contact List

Ministry of the Environment

Environmental Approvals Access and Service Integration Branch

2 St. Clair Avenue West, Floor 12A
Toronto Ontario M4V 1L5

Tel: 416-314-8001
Toll-free: 1-800-461-6290
Fax: 416-314-8452
Email: EAASIBGen@ontario.ca

Regional and District Offices

Northern Region

Office	Address	Contact Information
Thunder Bay Regional Office	435 James St. S., Suite 331, 3rd Floor Thunder Bay, Ontario P7E 6S7	**Toll-free from area codes 705/807:** 1 (800) 875-7772 **Tel:** (807) 475-1205 **Fax:** (807) 475-1754
Kenora Area Office	808 Robertson St. P. O. Box 5150 Kenora, Ontario P9N 3X9	**Toll-free from area code 807:** 1 (888) 367-7622 **Tel:** (807) 468-2718 **Fax:** (807) 468-2735
North Bay Area Office	191 Booth Road, Unit 16 & 17 North Bay, Ontario P1A 4K3	**Toll-free: 1 (800) 609-5553** **Tel:** (705) 497-6865 **Fax:** (705) 497-6866
Sault Ste Marie Area Office	289 Bay Street, 3rd Floor Sault Ste. Marie, Ontario P6A 1W7	**Tel:** (705) 942-6354 **Fax:** (705) 942-6327
Sudbury District Office	199 Larch St., Suite 1201 Sudbury, Ontario P3E 5P9	**Toll-free from area codes 705/807:** 1 (800) 890-8516 **Tel:** (705) 564-3237 **Fax:** (705) 564-4180
Thunder Bay District Office	435 James St. S., Suite 331 Thunder Bay, Ontario P7B 6M1	**Toll-free from area code 705/807:** 1 (800) 875-7772 **Tel:** (807) 475-1315 **Fax:** (807) 475-1754
Timmins District Office	Hwy 101 East P.O. Bag 3080 South Porcupine, Ontario P0N 1H0	**Toll-free from area codes 705/807:** 1 (800) 380-6615 **Tel:** (705) 235-1500 **Fax:** (705) 235-1520

Central Region

Office	Address	Contact Information
Central Region Office	5775 Yonge St., 8th floor North York, Ontario M2M 4J1	**Toll-free:** 1 (800) 810-8048 **Tel:** (416) 326-6700 **Fax:** (416) 325-6345
Halton-Peel District Office	4145 North Service Road, Suite 300 Burlington Ontario L7L 6A3	**Toll-free:** 1 (800) 335-5906 **Tel:** (905) 319-3847 **Fax:** (905) 319-9902
Metro Toronto District Office	5775 Yonge St., 8th Floor North York, Ontario M2M 4J1	**Toll-free:** 1 (800) 810-8048 **Tel:** (416) 326-6700 **Fax:** (416) 325-6346
York-Durham District Office	230 Westney Rd. S., 5th Floor Ajax, Ontario L1S 7J5	**Toll-free:** 1 (800) 376-4547 **Tel:** (905) 427-5600 **Fax:** (905) 427-5602
Barrie District Office	54 Cedar Pointe Dr., Unit 1203 Barrie, Ontario L4N 5R7	**Toll-free:** 1 (800) 890-8511 **Tel:** (705) 739-6441 **Fax:** (705) 739-6440

Eastern Region

Office	Address	Contact Information
Kingston Regional Office	Box 22032 1259 Gardiners Road Kingston, Ontario K7M 8S5	**Toll-free from area codes 613, 705, and 905:** 1 (800) 267-0974 **Tel:** (613) 549-4000 **Fax:** (613) 548-6908
Belleville Area Office	345 College Street East Belleville ON K8N 5S7	**Toll-free from area code 613:** 1 (800) 860-2763 **Tel:** (613) 962-9208 **Fax:** (613) 962-6809
Cornwall Area Office	113 Amelia St. Cornwall ON K6H 3P1	**Toll-free from area code 613:** 1 (800) 860-2760 **Tel:** (613) 933-7402 **Fax:** (613) 933-6402
Kingston District Office	Box 22032 1259 Gardiners Road Kingston, Ontario K7M 8S5	**Toll-free from area codes 613, 705, and 905:** 1 (800) 267-0974 **Tel:** (613) 549-4000 **Fax:** (613) 548-6920
Ottawa District Office	2430 Don Reid Drive Ottawa, Ontario K1H 1E1	**Toll-free:** 1 (800) 860-2195 **Tel:** (613) 521-3450 **Fax:** (613) 521-5437
Peterborough District Office	300 Water Street, Robinson Place Peterborough, Ontario K9J 8M5	**Toll-free from area codes 613, 705, and 905:** 1 (800) 558-0595 **Tel:** (705) 755-4300 **Fax:** (705) 755-4321

West Central Region

Office	Address	Contact Information
Hamilton Regional Office	119 King St. W., 12th Floor Hamilton, Ontario L8P 4Y7	**Toll-free:** 1 (800) 668-4557 **Tel:** (905) 521-7640 **Fax:** (905) 521-7820
Guelph District Office	1 Stone Road W. Guelph, Ontario N1G 4Y2	**Toll-free:** 1 (800) 265-8658 **Tel:** (519) 826-4255 **Fax:** (519) 826-4286
Hamilton District Office	119 King St. W., 9th Floor Hamilton, Ontario L8P 4Y7	**Toll-free:** 1 (800) 668-4557 **Tel:** (905) 521-7650 **Fax:** (905) 521-7806
Niagara District Office	301 St. Paul St., 9th Floor St. Catharines, Ontario L2R 3M8	**Toll-free:** 1 (800) 263-1035 **Tel:** (905) 704-3900 **Fax:** (905) 704-4015

Southwestern Region

Office	Address	Contact Information
London Regional Office **London District Office**	733 Exeter Road London, Ontario N6E 1L3	**Toll-free from area code 519:** 1 (800) 265-7672 **Tel:** (519) 873-5000 **Fax:** (519) 873-5020
Windsor Area Office	4510 Rhodes Drive, Unit 620 Windsor, Ontario N8W 5K5	**Toll-free:** 1 (800) 387-8826 **Tel:** (519) 948-1464 **Fax:** (519) 948-2396
Owen Sound Area Office	101 – 17th Street East Owen Sound, Ontario N4K 0A5	**Toll-free from area code 519:** 1 (800) 265-3783 **Tel:** (519) 371-2901 **Fax:** (519) 371-2905
Sarnia District Office	1094 London Rd. Sarnia, Ontario N7S 1P1	**Toll-free:** 1 (800) 387-7784 **Tel:** (519) 336-4030 **Fax:** (519) 336-4280

Ministry of Energy

Renewable Energy Facilitation Office

880 Bay Street, 2nd Floor
Toronto, Ontario M7A 2C1

Toll-free: 1 (877) 440-REFO (7336)
Within the GTA: (416) 212-6582
Fax: (416) 314-2175
Email: REFO@ontario.ca

Ministry of Tourism, Culture and Sport

Programs and Services Branch Culture Division

401 Bay Street, Suite 1700
Toronto, Ontario M7A 0A7

Tel: (416) 325-4602
Fax: (416) 314-7175
Email: general_info@mtc.gov.on.ca

Ministry of Transportation

Corridor Management and Property Office

301 St. Paul Street, 2nd Floor,
St. Catharines, Ontario L2R 7R4

Tel: (905) 704-2989
Fax: (905) 704-2777

Corridor Management Regional Offices

http://www.mto.gov.on.ca/english/engineering/management/corridor/district.shtml#regional

Ministry of Agriculture, Food and Rural Affairs

Agricultural Information Contact Centre (AICC)

1 Stone Road W., 4th Floor,
Guelph, Ontario N1G 4Y2

Toll-free: 1 (877) 424-1300
Fax: (519) 826-3442
Email: ag.info.omafra@ontario.ca

Ministry of Natural Resources

Main MNR Office Locations

Office	Address	Contact Information
Renewable Energy Program (for policy development and Crown Land application information)	Ministry of Natural Resources 300 Water Street, P.O. Box 7000, Peterborough, Ontario, K9J 8M5	**Tel:** (705) 755-5041 **Fax:** (705) 755-1206 **Email:** renewable.mnr@ontario.ca
Ministry of Natural Resources Regional and District Offices (for project development/review information)	Please visit: http://www.mnr.gov.on.ca/en/ContactUs/2ColumnSubPage/STEL02_179002.html for office contacts and locations	**Tel:** (705) 755-2000 **Toll-Free:** 1 (800) 667-1940 **TTY:** 1 (866) 686-6072

Local Conservation Authorities

Conservation Authority	Address	Contact Information
Ausable Bayfield Conservation Authority	71108 Morrison Line, RR #3, Exeter, ON, N0M 1S5	**Tel:** (519) 235-2610 **Email:** info@abca.on.ca
Cataraqui Region Conservation Authority	PO Box 160, 1641 Perth Road, Glenburnie, ON, K0H 1S0	**Tel:** (613) 546-4228 **Email:** crca@cataraquiregion.on.ca
Catfish Creek Conservation Authority	8079 Springwater Rd, RR # 5, Aylmer, ON, N5H 2R4	**Tel:** (519) 773-9037 **Email:** admin@catfishcreek.ca
Central Lake Ontario Conservation Authority	100 Whitling Ave, Oshawa, ON, L1H 3T3	**Tel:** (905) 579-0411 **Email:** mail@cloca.com
Conservation Halton	2596 Britannia Rd West, Burlington, ON, L7P 0G3	**Tel:** (905) 336-1158 **Email:** admin@hrca.on.ca
Credit Valley Conservation Authority	1255 Old Derry Rd, Mississauga, ON, L5N 6R4	**Tel:** (905) 670-1615 **Email:** cvc@creditvalleyca.ca
Crowe Valley Conservation Authority	70 Hughes Lane, PO Box 416, Marmora, ON, K0K 2M0	**Tel:** (613) 472-3137 **Email:** info@crowevalley.com
Essex Region Conservation Authority	360 Fairview Ave West, Suite 311, Essex, ON, N8M 1Y6	**Tel:** (519) 776-5209 **Email:** admin@erca.org
Ganaraska Region Conservation Authority	2216 County Rd 28, Port Hope, ON, L1A 3W4	**Tel:** (905) 885-8173 **Email:** info@grca.on.ca
Grand River Conservation Authority	400 Clyde Rd, PO Box 729, Cambridge, ON, N1R 5W6	**Tel:** (519) 621-2761 **Email:** grca@grandriver.ca
Grey Sauble Conservation Authority	237897 Inglis Falls Rd, RR #4, Owen Sound, ON, N4K 5N6	**Tel:** (519) 376-3076 **Email:** k.mckee@greysauble.on.ca

Conservation Authority	Address	Contact Information
Hamilton Conservation Authority	PO Box 81067, 838 Mineral Springs Rd, Ancaster, ON, L9G 4X1	**Tel:** (905) 525-2181 **Email:** nature@conservationhamilton.ca
Kawartha Conservation Authority	277 Kenrei Park Rd, Lindsay, ON, K9V 4R1	**Tel:** (705) 328-2271 **Email:** geninfo@kawarthaconservation.com
Kettle Creek Conservation Authority	44015 Ferguson Line, RR #8, St. Thomas, ON, N5P 3T3	**Tel:** (519) 631-1270 **Email:** elizabeth@kettlecreekconservation.on.ca
Lakehead Region Conservation Authority	PO Box 10427, 130 Conservation Rd, Thunder Bay, ON, P7B 6T8	**Tel:** (807) 344-5857 **Email:** info@lakeheadca.com
Lake Simcoe Region Conservation Authority	120 Bayview Parkway, PO Box 282, Newmarket, ON, L3Y 4X1	**Tel:** (905) 895-1281 **Email:** info@lsrca.on.ca
Long Point Region Conservation Authority	4 Elm Street, Tillsonburg, ON, N4G 0C4	**Tel:** (519) 842-4242 **Email:** conservation@lprca.on.ca
Lower Thames Valley Conservation Authority	100 Thames St., Chatham, ON, N7L 2Y8	**Tel:** (519) 354-7310 **Email:** ltvca@MNSi.net
Lower Trent Conservation	714 Murray St., RR #1, Trenton, ON, K8V 5P4	**Tel:** (613) 394-4829 **Email:** information@ltc.on.ca
Maitland Valley Conservation Authority	1093 Marietta St., Box 127, Wroxeter, ON, N0G 2X0	**Tel:** (519) 335-3557 **Email:** maitland@mvca.on
Mattagami Region Conservation Authority	100 Lakeshore Rd, Timmins, ON, P4N 8R5	**Tel:** (705) 360-2660 **Email:** mrca@timmins.ca
Mississippi Valley Conservation Authority	4175 Hwy #511, RR #2, Lanark, ON, K0G 1K0	**Tel:** (613) 259-2421 **Email:** info@mvc.on.ca
Niagara Peninsula Conservation Authority	250 Thorold Rd West, 3rd floor, Welland, ON, L3C 3W2	**Tel:** (905) 788-3135 **Email:** npca@npca.ca
Nickel District Conservation Authority	200 Brady St, ,Tom Davies Square, Sudbury, ON, P3E 5K3	**Tel:** (705) 674-5249 **Email:** ndca@city.greatersudbury.on.ca
North Bay-Mattawa Conservation Authority	15 Janey Ave, North Bay, ON, P1C 1N1	**Tel:** (705) 424-1479 **Email:** admin@nvca.on.ca
Otonabee Conservation Authority	250 Milroy Drive, Peterborough, ON, K9H 7M9	**Tel:** (705) 745-5791 **Email:** otonabeeca@otonabee.com
Quinte Conservation	2061 Old Highway 2, RR #2, Belleville, ON, K8N 4Z2	**Tel:** (613) 968-3434 **Email:** quinteca@quinteconservation.ca
Raisin Region Conservation Authority	18045 County Rd 2, PO Box 429, Cornwall, ON	**Tel:** (613) 938-3611 **Email:** info@rrca.on.ca

Conservation Authority	Address	Contact Information
Rideau Valley Conservation Authority	PO Box 599, 3889 Rideau Valley Drive, Manotick, ON, K4M 1A5	**Tel:** (613) 692-3571 **Email:** postmaster@rvca.ca
Saugeen Conservation Authority	1078 Bruce Road 12, Formosa, ON, M0G 1W0	**Tel:** (519) 367-3040 **Email:** publicinfo@svca.on.ca
Sault Ste Marie Region Conservation Authority	1100 Fifth Line East, Sault Ste. Marie, ON, P6A 5K7	**Tel:** (705) 946-8530 **Email:** nature@ssmrca.ca
South Nation Conservation Authority	38 Victoria St, PO Box 29, Finch, ON, K0C 1K0	**Tel:** (613) 984-2948 **Email:** info@nation.on.ca
St. Clair Region Conservation Authority	205 Mill Pond Cres, Strathroy, ON, N7G 3P9	**Tel:** (519) 245-3710 **Email:** stclair@scrca.on.ca
Toronto and Region Conservation Authority	5 Shoreham Dr, Downsview, ON, M3N 1S4	**Tel:** (416) 661-6600 **Email:** info@trca.on.ca
Upper Thames River Conservation Authority	1424 Clarke Rd, London, ON, N5V 5B9	**Tel:** (519) 451-2800 **Email:** infoline@thamesriver.on.ca

Other Ontario Agencies

Agency	Address	Contact Information
Niagara Escarpment Commission Georgetown Office	232 Guelph Street, 3rd Floor Georgetown, Ontario L7G 4B1	**Tel:** (905) 877-5191 **Fax:** (905) 873-7452
Electrical Safety Authority	155A Matheson Blvd. West, Suite 202 Mississauga, Ontario L5R 3L5	**Tel:** (905) 507-4949 **Fax:** (905) 507-4712
Independent Electricity System Operator	Station A, Box 4474 Toronto, ON M5W 4E5	**Toll-free:** 1 (888) 448-7777 **Tel:** (905) 403-6900 **Fax:** (905) 403-6921 **Email:** customer.relations@ieso.ca
Ontario Energy Board	2300 Yonge Street, P.O. Box 2319 Toronto, Ontario M4P 1E4	**Toll-free:** 1 (888) 632-6273 **Tel:** (416) 481-1967 **Fax:** (416) 440-7656
Technical Standards and Safety Authority	14th Floor, Centre Tower 3300 Bloor Street West Toronto, Ontario M8X 2X4	**Toll-free:** 1 (877) 682-8772 **Tel:** (416) 734-3300 **Fax:** (416) 326-1663 **Email:** customerservices@tssa.org

Agency	Address	Contact Information
Ontario Provincial Police (Traffic and Marine Inspectors by Region)	West Region Inspector Ian Chappell 6355 Westminster Drive, London, Ontario N6P 1N5	**Tel:** (519) 652-4155 **Email:** ian.chappell@ontario.ca
	East Region Inspector Dave Springer 525 Queen Street Smiths Falls, Ontario K7A 5B8	**Tel:** (613) 285-2720 **Email:** dave.springer@ontario.ca
	Central Region Inspector Dominic Beckett 11 Addison Rd Alliston, Ontario L9R 1W1	**Tel:** (705) 329-7411 **Email:** dom.beckett@ontario.ca
	Northwest Region Inspector Mark Andrews 911 A Gormanville Rd. North Bay, Ontario P1B 8G8	**Tel:** (705) 845-2720 **Email:** mark.andrews@ontario.ca
	Northwest Region Staff Sergeant Kenneth Mantey 615 James St S Thunder Bay, Ontario P7E 6P6	**Tel:** (807) 473-2723 **Email:** kenneth.mantey@ontario.ca

Federal Government Departments/Agencies

Department/Agency	Address	Contact Information
Canadian Environmental Assessment Agency	22nd Floor, Place Bell 160 Elgin Street Ottawa, Ontario K1A 0H3	**Toll-free:** 1 (866) 582-1884 **Tel:** (613) 957-0700 **Fax:** (613) 957-0862
Fisheries and Oceans Canada Communications Branch	200 Kent Street 13th Floor, Station 13E228 Ottawa, Ontario K1A 0E6	**Tel:** (613) 993-0999 **TTY:** 1 (800) 465-7735 **Fax:** (613) 990-1866 **Email:** info@dfo-mpo.gc.ca
Radio Advisory Board of Canada	811-116 Albert Street, Ottawa, Ontario K1P 5G3	**Toll-free:** 1 (888) 902-5768 **Tel:** (613) 230-3261 **Email:** rabc.gm@on.aibn.com
Royal Canadian Mounted Police	73 Leikin Drive Ottawa, Ontario K1A 0R2	**Tel:** (613) 993-7267 **TTY:** (613) 993-2232 **Fax:** (613) 993-0260
Royal Canadian Mounted Police Mobile Communications Services		**Email:** windfarm_coordinator@rcmp-grc.gc.ca
Natural Resources Canada	580 Booth Street Ottawa, Ontario K1A 0E4	**Tel:** (613) 995-0947 **TTY:** (613) 996-4397

Department/Agency	Address	Contact Information
Environment Canada	10 Wellington, 23rd Floor Gatineau, Quebec K1A 0H3	**Toll-free:** 1(800) 668-6767 **Tel:** 1 (819) 997-2800 **TTY:** 1 (819) 994-0736 **Fax:** 1 (819) 994-1412 **Email:** enviroinfo@ec.gc.ca
Environment Canada, National Radar Program	4905 Dufferin Street Toronto, Ontario M3H 5T4	**Fax:** (416) 739-4261 **Email:** weatherradars@ec.gc.ca
Environment Canada, Environmental Assessment Section	867 Lakeshore Road P.O. Box 5050 Burlington, Ontario L7R 4A6	**Tel:** (905) 336-4953 **Email:** EA-EE.ontario@ec.gc.ca
Canadian Broadcasting Corporation (CBC)	Martin Marcotte Director – CBC Transmission Tracey Walsh Business Manager – Ontario PO Box 500, Station A Toronto, ON M5W 1E6	**Tel:** (416) 205-6510 **Email:** martin.marcotte@cbc.ca **Tel:**(416) 205-2954 **Fax:** (416) 205-2420 **Email:** tracey.walsh@cbc.ca http://cbctransmission.ca/
Transport Canada, Aerodromes and Air Navigation Ontario Region	4900 Yonge Street, Suite 400 North York, Ontario M2N 6A5	**Toll-free:** 1 (800) 305-2059 **Tel:** (416) 952-0230 **Email:** aerodromes.ontario@tc.gc.ca
NAV CANADA, Land Use Office	Land Use Office 1601 Tom Roberts Ave. PO Box 9824, Stn T Ottawa, ON K1G 6R2	**Tel:** 1-866-577-0247 **Fax:** 1-613-248-4094 **Email:** landuse@navcanada.ca

Appendix 3: Notice Templates

NOTICE OF A PROPOSAL

by [*Insert Applicant Name*] **to Engage in a Renewable Energy Project**

Project Name: [*Insert Project Name*]
OPA Reference Number: [*insert OPA Reference Number*]
Project Location: [*Insert a description of the lands on which the project is being proposed*]
Dated at [*insert local municipality*] **this the** [*Insert day*] **of** [*Insert month and year*]

[*Insert Name of applicant*] is planning to engage in a renewable energy project in respect of which the issuance of a renewable energy approval is required. The distribution of this notice of a proposal to engage in this renewable energy project and the project itself are subject to the provisions of the *Environmental Protection Act (ACT)* Part V.0.1 and Ontario Regulation 359/09 (Regulation). This notice must be distributed in accordance with section 15 of the Regulation prior to an application being submitted and assessed for completeness by the Ministry of the Environment.

Project Description:
Pursuant to the Act and Regulation, the facility, in respect of which the project is to be engaged in, is considered to be a [*insert type of renewable energy source*] Facility *[if the facility is classified under the Regulation, include the classification here]*. If approved, this facility would have a total maximum name plate capacity of ___MW . The project location is described in the map below.

This project is being proposed in accordance with the requirements of the Act and Regulation. The Draft Project Description Report titled [*Insert Title of document*] describes the facility as [*Insert a brief description of the proposed facilities, equipment or technology that will be used to convert the renewable energy source or any other energy source to electricity*.] A written copy of the Draft Project Description Report is being made available for public inspection at [*Insert public location where documents can be inspected* or *Insert applicants website address*].

Project Contacts and Information:
To learn more about the project proposal or to communicate concerns please contact:
[*insert proponent and/or consultant contact information*]
[*insert project website address if applicable*]

Insert map showing the project location and lands within 300 meters]

Insert project location]
Insert scale bar and north arrow]

NOTICE OF PUBLIC MEETING

To be held by [*Insert Applicant Name*] regarding a Proposal to Engage in a Renewable Energy Project

Project Name: [*Insert Project Name*]
OPA Reference Number: [*insert OPA Reference Number*]
Project Location: [*Insert a description of the lands on which the project is being proposed*]
Dated at [*insert local municipality*] **this the** [*Insert day*] **of** [*Insert month and year*]

[*Insert Name of applicant*] is planning to engage in a renewable energy project in respect of which the issuance of a renewable energy approval is required. The proposal to engage in the project and the project itself is subject to the provisions of the *Environmental Protection Act (ACT)* Part V.0.1 and Ontario Regulation 359/09 (Regulation). This notice must be distributed in accordance with section 15 of the Regulation prior to an application being submitted and assessed for completeness by the Ministry of the Environment.

Meeting Location:

DATE: [*Insert Date*]
TIME: [*Insert Time*]
PLACE: [*Insert facility name, address and municipality*]

Project Description:
Pursuant to the Act and Regulation, the facility, in respect of which this project is to be engaged in, is a [*insert type of renewable energy source and classification, if the facility is classified under the Regulation*] Facility [*if the facility is classified under the Regulation, indicate the classification as well]*. If approved, this facility would have a total maximum name plate capacity of ___MW . The project location is described in the map below.

Documents for Public Inspection:
The Draft Project Description Report titled [*Insert Title of document*] describes the project as [*Insert a brief description of the proposed facilities, equipment or technology that will be used to convert the renewable energy source or any other energy source to electricity*.] A written copy of the Draft Project Description Report was made available for public inspection on [*Insert date*] at [*Insert public location where documents can be inspected* or *Insert applicant's website address if the document has been posted there*].

Further, the applicant has obtained or prepared, as the case may be, the following supporting documents in order to comply with the requirements of the Act and Regulation. Written copies of the draft supporting documents will be made available for public inspection on [*Insert date*] at [*Insert public location where documents can be inspected* or *Insert applicants website address*].

Project Contacts and Information:
To learn more about the project proposal, public meetings, or to communicate concerns please contact:
[*insert proponent and/or consultant contact information*]
[*insert project website address if applicable*]

[*Insert map showing the project location and lands within 300 meters*]

[*Insert project location*]
[*Insert scale bar and north arrow*]

NOTICE OF A DRAFT SITE PLAN

by [*Insert Applicant Name*] to Engage in a Renewable Energy Project

Project Name: [*Insert Project Name*]
OPA Reference Number: [*insert OPA Reference Number*]
Project Location: [*Insert a description of the lands shown in the map below*]
Dated at [*insert local municipality*] **this the** [*Insert day*] **of** [*Insert month and year*]

[*Insert Name of applicant*] is planning to engage in a renewable energy project in respect of which the issuance of a Renewable Energy Approval (REA) is required. The distribution of this Notice of a Draft Site Plan and the project itself are subject to the provisions of the *Environmental Protection Act (Act)* Part V.0.1 and Ontario Regulation 359/09 (Regulation). This Notice must be distributed in accordance with section 54.1 of the Regulation prior to an application being submitted to the Ministry of the Environment.

Project Description:
Pursuant to the Act and Regulation, the wind facility, in respect of which the project is to be engaged in, is considered to be a Class [*include the classification here*]. If approved, this wind facility would have a total maximum name plate capacity of [*insert number*] MW. This project is being proposed in accordance with the requirements of the Act and Regulation. The project location is described in the map below.

Documents for Public Inspection:
A Draft Site Plan, including the proposed changes to the transformer substations or wind turbines, has been made available to the public. The legal effect of this Notice is such that, pursuant to the Regulation, [*Insert Project Name*] must consider noise receptors as defined by the Act that existed only as of [Insert the date one day before the first published or posted notice of the draft site plan]. A written copy of the Draft Site Plan Report is being made available for public inspection at [*Insert public location where documents can be inspected and applicant's website address if the applicant has a website*].

Noise Assessment Report [*delete section if applicant is using the setback matrix provided in section 55 of the regulation*] that demonstrates how the placement of turbines and transformer substations comply with the Ministry of the Environment's 2008 publication entitled "Noise Guidelines for Wind farms", has been issued for this project. A written copy of the Noise Assessment Report is being made available for public inspection at [Insert public location where documents can be inspected and applicant's website address if the applicant has a website].

Project Contacts and Information:
To learn more about the project proposal or to communicate concerns please contact:
[*insert proponent and/or consultant contact information*]
[*insert project website address, if applicable*]

[Insert map showing the project location and lands within 300 meters, drawn to scale of at least 1 cm: 500 m]

[*Insert project location*]
[*Insert scale bar and north arrow*]

NOTICE OF A PROPOSED CHANGE TO A RENEWABLE ENERGY PROJECT [AND PUBLIC MEETING(S)]

[*delete text in brackets if one or more public meetings have not been required by the Director*]

Project Name: [*Insert Project Name*]
MOE Reference Number: [*delete reference if the application has not been submitted yet*]
OPA Reference Number: [*Insert OPA Reference Number*]
Project Location: [*Insert a description of the lands on which the project is being proposed*]
Dated at [*insert local municipality*] **this the** [*Insert day*] **of** [*Insert month and year*]

[*Insert Name of applicant*] is planning to engage in a renewable energy project in respect of which the issuance of a renewable energy approval is required. The project is subject to the provisions of the Environmental Protection Act (Act) Part V.0.1 and Ontario Regulation 359/09 (Regulation). This notice must be distributed in accordance with section 16.0.1 of the Regulation. This notice is being distributed to make the public aware of a **proposed change to the project** [and that one or more **public meetings about the change** are to be held]. [*delete reference to public meetings if one or more has not been required by the Director*]

Meeting Location: [*Delete section if one or more additional public meetings were not required by the Director*]
DATE: [*Insert Date*]
TIME: [*Insert Time*]
PLACE: [*Insert facility name, address and municipality*]

Project Description and Proposed Change:
Pursuant to the Act and Regulation, the facility, in respect of which this project was originally proposed to be engaged in, consisted of a [insert type of renewable energy source and classification, if the facility is classified under the Regulation] Facility [if the facility is classified under the Regulation, indicate the classification as well].

A **change is being proposed** to the project. The change consists of: [*insert brief description of the proposed changes and note any change to the classification of the facility under the Regulation, if applicable*]

If approved with this change, this facility would have a total maximum name plate capacity of ___MW. The project location, taking the proposed change into account, is described in the map below.

Documents for Public Inspection:
[*delete section if Director did not require supporting documents to be updated*] [*Insert Name of applicant*] has been required to update the supporting documents that are required to form part of the application. Written copies of the draft supporting documents will be made available for public inspection on [*Insert date*] at [*Insert public location where documents can be inspected and applicant's website address if the applicant has a website*]. Written copies of the Draft Project Description Report and supporting documents were last made available for public inspection on [*Insert date*] at [*Insert public location where documents were inspected and applicant's website address if the documents were posted there*].

[*Insert map showing the project location and lands within 300 meters*]

[
[*Insert project location*]
[*Insert scale bar and north arrow*]

Project Contacts and Information:
To learn more about the project proposal, [public meetings,] [*delete reference to public meetings if one or more has not been required by the Director*] or to communicate concerns please contact:

[*insert proponent and/or consultant contact information and project website address if applicable*]

NOTICE OF A PROPOSED CHANGE TO AN APPROVED RENEWABLE ENERGY PROJECT [AND PUBLIC MEETING(S)]

[*delete text in brackets if one or more public meetings have not been required by the Director*]

Project Name: [*Insert Project Name*]
OPA Reference Number: [*insert OPA Reference Number*]
Project Location: [*Insert a description of the lands shown in the map below*]
Dated at [*insert local municipality*] **this the** [*Insert day*] **of** [*Insert month and year*]

[*Insert Name of applicant*] was issued a Renewable Energy Approval on [*insert date*] in respect of the [*Insert Project Name*]. Information with respect to the decision on this project can be viewed on the Environmental Registry by searching [*insert EBR #*].

[*Insert name of applicant*] is proposing to make a change to the project and the project itself is subject to the provisions of the *Environmental Protection Act (Act)* Part V.0.1 and Ontario Regulation 359/09 (Regulation). This notice must be distributed in accordance with section 32.2 of the Regulation. This notice is being distributed to make the public aware of a **proposed change to the project** [and that one or more **public meetings about the change** are to be held]. [*delete reference to public meetings if one or more has not been required by the Director*]

Meeting Location: [*Delete section if one or more additional public meetings were not required by the Director*]
DATE: [*Insert Date*]
TIME: [*Insert Time*]
PLACE: [*Insert facility name, address and municipality*]

Project Description and Proposed Change:
Pursuant to the Act and Regulation, the project in respect of which the Renewable Energy Approval was issued, is a [*insert type of renewable energy source and classification, if the facility is classified under the Regulation*] Facility [*if the facility is classified under the Regulation, indicate the classification as well*].

An application has been made to the Ministry of the Environment to **change the project** and alter the terms and conditions of the existing Renewable Energy Approval. The proposed change consists of: [*insert brief description of the proposed changes and note any change to the classification of the facility under the Regulation, if applicable*]

If approved with this change, this facility would have a total maximum name plate capacity of ___MW. The project location, taking the proposed change into account, is described in the map below.

[*Insert map showing the project location and lands within 300 meters*]

[*Insert project location*]
[*Insert scale bar and north arrow*]

Documents for Public Inspection:
[*delete section if updated documents were not required by the Director*] [*Insert Name of applicant*] has been required to update the supporting documents that are required to form part of the application or which must otherwise be submitted to the Ministry of the Environment available to the public. Written copies of the draft supporting documents will be made available for public inspection on [*Insert date*] at [*Insert public location where documents can be inspected and applicant's website address if the applicant has a website*].

Project Contacts and Information:
To learn more about the project proposal, [public meetings,] [*delete reference to public meetings if one or more has not been required by the Director*] or to communicate concerns please contact:

[*insert proponent and/or consultant contact information and project website address if applicable*]

Appendix 4: Consultation Form: Municipalities, Local Authorities

Ontario

Ministry of the Environment

Renewable Energy Approval

Municipal / Local Authority Consultation Form – PART A
s.18 (2) Ontario Regulation 359/09

Ce formulaire est disponible en français

PART A: TO BE COMPLETED BY THE APPLICANT BEFORE SUBMITTING TO MUNICIPALITY OR LOCAL AUTHORITY

Section 1 - Project Description

1.1. Renewable Energy Project					
Project Name (*Project identifier to be used as a reference in correspondence*)					
Project Location					
Same as Applicant Physical Address? ☐ Yes ☐ No (If no, please provide site address information below)					
Civic Address					
Unit Number	Street Number	Street Name (*Include type and direction*)		PO Box	
City/Town		Province		Postal Code	
Telephone Number	Fax Number	Email Address (if available)			
Survey Address (*Not required if Civic Address is provided*)	Lot	Concession	Part	Reference Plan	
Location Information (*includes any additional information to clarify physical location)(e.g. municipality, ward/ township*)					
Geo Reference (*e.g. southwest corner of property*)					
Map Datum	Zone	Accuracy Estimate	Geo Referencing Method	UTM Easting	UTM Northing
Project Phasing (*outline construction, operation and decommissioning activities*)					

1.2. Environmental Context

Describe negative environmental effects that may result from engaging in the project (*consider construction, operation and decommissioning activities*.)

Propose early avoidance/prevention/mitigation concepts and measures.

1.3. Renewable Energy Generation Facility

Type of Facility / Operation (select all that apply & complete all appropriate sections)

☐	Wind Facility (Land Based)	☐	Biofuel Facility
☐	Wind Facility (Off-Shore)	☐	Solar Photovoltaic Facility
☐	Biogas Facility	☐	Other (describe):
☐	Anaerobic Digesters	☐	Class (if applicable):
☐	Thermal Treatment		

Name Plate Capacity	Expected Generation	Service Area	Total Area of Site (*hectares*)

Provide a description of the facilities equipment or technology that will be used to convert the renewable energy source or any other energy source to electricity.

1.4. Renewable Energy Generation Activities

Describe the activities that will be engaged in as part of the renewable energy project

Section 2 – Supporting Documents

2.1. Required Documents Distributed for Consultation		
Requirement	Name of Draft Document	Date available to Municipal or Local Authority Contact
DRAFT Project Description Report		
DRAFT Design and Operations Report		
DRAFT Construction Plan Report		
DRAFT Decommissioning Plan Report		
If applicable, as outlined in O. Reg. 359/09		
DRAFT Archaeological Assessment		
DRAFT Heritage Assessment		
DRAFT Natural Heritage Assessment		
DRAFT Water Assessment		
DRAFT Effluent Management Plan Report		
DRAFT Emission Summary and Dispersion Modeling Report		
DRAFT Hydrogeological Assessment Report		
DRAFT Noise Study Report		
DRAFT Odour Study Report		
DRAFT Surface Water Assessment Report		
DRAFT Specifications Report		
DRAFT Off-shore Wind Report		
Other		

2.2. Cross Reference to Part B Section 5 - Municipal Consultation Requirements	
Requirement	Name(s) of Draft Document(s) and Page Numbers where Relevant Information can be Found
Infrastructure and Servicing	
Road Access	
Traffic Management Plans	
Municipal Service Connections (other than roads)	
Landscaping Design	
Emergency Management Procedures / Safety Protocols.	
Easements or Restrictive Covenants	
Temporary Disturbance Areas / Municipal Infrastructure that could be Damaged During Construction	
Fire Hydrants and Connections to Existing Drainage, Water Works and Sanitary Sewers	
Buried Kiosks and Above-Grade Utility Vaults	
Existing and Proposed Gas and Electricity Lines and Connections	

Building Code Permits and Licenses	
Natural Features and Water Bodies	
Archaeological Resource or Heritage Resource	
2.3. Location where written draft reports can be obtained for public inspection	
Identify the location where written draft reports can be obtained for public inspection: (*physical location for viewing and the applicants project website if one is available*)	

Section 3 – Applicant Address and Contact Information

3.1. Applicant Information *(Owner of project/facility)*				
Applicant Name (*legal name of individual or organization as evidenced by legal documents*)			Business Identification Number	
Business Name (the name under which the entity is operating or trading - also referred to as trade name)			☐ same as Applicant Name	
Civic Address				
Unit Number	Street Number	Street Name (*Include type and direction*)		PO Box
City/Town		Province		Postal Code
Telephone Number	Fax Number		Email Address (if available)	
Survey Address (*Not required if Street Information is provided*)	Lot	Conc.	Part	Reference Plan
Municipality	County/District	Province/State	Country	Postal Code

Ontario

Ministry of the Environment

Renewable Energy Approval

Municipal / Local Authority Consultation Form – PART B
s.18 (2) Ontario Regulation 359/09

Ce formulaire est disponible en français

PART B: TO BE COMPLETED BY THE MUNICIPALITY OR LOCAL AUTHORITY

Section 4 – Municipality or Local Authority Contact Information

4.1. Municipal or Local Authority Information (complete one of the following sections)			
Local Municipality / Unorganized Township ☐ Yes ☐ No			
Name of Municipality			
Address			
Unit Number	Street Number	Street Name (*Include type and direction*)	PO Box
City/Town		Province	Postal Code
Telephone Number (*Include area code*)			
Clerk			
Last Name	First Name		Middle Initial
Telephone Number (*Include area code*)	Fax Number (*Include area code*)		
Email Address			
Upper Tier Municipality ☐ Yes ☐ No			
Name of Municipality			
Address			
Unit Number	Street Number	Street Name (*Include type and direction*)	PO Box
City/Town		Province	Postal Code
Telephone Number (*Include area code*)			

Clerk			
Last Name	First Name		Middle Initial
Telephone Number (*Include area code*)	Fax Number (*Include area code*)		
Email Address			
Local Roads Area ☐ Yes ☐ No			
Name of Local Roads Board			
Address			
Unit Number / Street Number	Street Name (*Include type and direction*)	PO Box	
City/Town	Province	Postal Code	
Telephone Number (*Include area code*)			
Secretary-Treasurer			
Last Name	First Name	Middle Initial	
Telephone Number (*Include area code*)	Fax Number (*Include area code*)		
Email Address			
Local Service Board Area ☐ Yes ☐ No			
Name of Local Service Board			
Address			
Unit Number / Street Number	Street Name (*Include type and direction*)	PO Box	
City/Town	Province	Postal Code	
Telephone Number (*Include area code*)			
Secretary			
Last Name	First Name	Middle Initial	
Telephone Number (*Include area code*)	Fax Number (*Include area code*)		
Email Address			

Section 5 – Consultation Requirements

See Part A, Section 2.2 to cross reference to locations in Draft Reports where information on specific Consultation Requirements can be found

5.1. Project Location
Provide comment on the project location with respect to infrastructure and servicing.
5.2. Project Roads
Provide comment on the proposed project's plans respecting proposed road access.
Identify any issues and provide recommendations with respect to road access.
Provide comment on any proposed Traffic Management Plans.
Identify any issues and provide recommendations with respect to the proposed Traffic Management Plans.
5.3. Municipal or Local authority Service Connections
Provide comment on the proposed project plans related to the location of and type of municipal service connections, other than roads.
Identify any issues and provide recommendations with respect to the type of municipal service connections, other than roads.

5.4. Facility Other
Identify any issues and recommendations with respect to the proposed landscaping design for the facility.
Provide comment on the proposed project plans for emergency management procedures / safety protocols.
Identify any issues and recommendations with respect to the proposed emergency management procedures / safety protocols.
Identify any issues and recommendations with respect to any Easements or Restrictive Covenants associated with the Project Location.
5.5. Project Construction
Identify any issues and recommendations with respect to: • the proposed rehabilitation of any temporary disturbance areas and any municipal or local authority infrastructure that could be damaged during construction. • the proposed location of fire hydrants and connections to existing drainage, water works and sanitary sewers. • the proposed location of buried kiosks and above-grade utility vaults. • the proposed location of existing and proposed gas and electricity lines and connections. • Building Code permits and licenses. • the identification of any significant natural features and water bodies within the municipality or territory. • the identification any archaeological resource or heritage resource. • aerodromes and/or airports.

Appendix 5: Checklist Requirements under O. Reg. 359/09

Ontario

Ministry of the Environment

Checklist for Requirements under O. Reg. 359/09

Supplement to Application for Approval of a Renewable Energy Project

Project Name/Location	**Feed-in-Tariff (FIT) Number (if applicable)**

Instructions

This checklist is intended to assist proponents of renewable energy projects in completing their applications for the issue of a renewable energy approval. Use of this checklist is optional. If you choose to complete this checklist, it is recommended that you include the completed checklist with your application; however, it is not mandatory.

The Ministry of the Environment (MOE) assumes no responsibility for errors or omissions in any of the information contained in this checklist and MOE specifically disclaims any express or implied warranties related to the use of this checklist. Moreover, this checklist is not, and should not be construed as, legal advice. Please review Ontario Regulation 359/09 "Renewable Energy Approvals" made under the Environmental Protection Act to determine exact requirements and if you have any questions about the application or interpretation of the regulation or have other legal questions, you should consult a lawyer.

This checklist may be amended from time to time.

Renewable Energy Approval (Part IV of O. Reg 359/09)

A. Table of documents that must be submitted pursuant to Section 13 of O. Reg. 359/09

Construction Plan Report *Set out a description of the following in respect of the renewable energy project*		
REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
1. Details of any construction or installation activities.	☐ Yes ☐ No ☐ N/A	
2. The location and timing of any construction or installation activities for the duration of the construction or installation.	☐ Yes ☐ No ☐ N/A	
3. Negative environmental effects that may result from construction or installation activities.	☐ Yes ☐ No ☐ N/A	
4. Mitigation measures in respect of negative environmental effects mentioned in paragraph 3.	☐ Yes ☐ No ☐ N/A	

Consultation Report *Set out information relating to consultations conducted in respect of the renewable energy project, including the following*		
REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
1. A summary of communication with any members of the public, aboriginal communities, municipalities, local roads boards and Local Services Boards regarding the project.	☐ Yes ☐ No ☐ N/A	
2. Evidence that the information required to be distributed to aboriginal communities under subsection 17 (1) of O. Reg. 359/09 was distributed.	☐ Yes ☐ No ☐ N/A	
3. Any information provided by an aboriginal community in response to a request made under paragraph 4 of subsection 17 (1) of O. Reg. 359/09.	☐ Yes ☐ No ☐ N/A	
4. Evidence that a consultation form was distributed in accordance with subsection 18 (1) of O. Reg. 359/09.	☐ Yes ☐ No ☐ N/A	
5. The consultation form distributed under subsection 18 (1) of O. Reg. 359/09, if any part of it has been completed by a municipality, local roads board or Local Services Board.	☐ Yes ☐ No ☐ N/A	
6. A description of whether and how, (a) comments from members of the public, aboriginal communities, municipalities, local roads boards and Local Services Boards were considered by the person who is engaging in the project,	☐ Yes ☐ No ☐ N/A	
(b) the documents that were made available under subsection 16 (5) of O. Reg. 359/09 were amended after the final public meeting was held, and	☐ Yes ☐ No ☐ N/A	
(c) the proposal to engage in the project was altered in response to comments mentioned in subparagraph a.	☐ Yes ☐ No ☐ N/A	
7. A description of the manner in which the location of the wind turbines was made available to the public, if a person proposing to engage in a project in respect of a class 4 or 5 wind facility relied on paragraph 4 of subsection 54 (1.2) or paragraph 4 of subsection 55 (2.2) of O. Reg. 359/09.	☐ Yes ☐ No ☐ N/A	
8. If paragraph 7 applies, proof of the date on which the location of the wind turbines referred to in that paragraph was made available to the public.	☐ Yes ☐ No ☐ N/A	

Decommissioning Plan Report *Set out a description of plans for the decommissioning of the renewable energy generation facility, including the following*		
REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
1. Procedures for dismantling or demolishing the facility.	☐ Yes ☐ No ☐ N/A	
2. Activities related to the restoration of any land and water negatively affected by the facility.	☐ Yes ☐ No ☐ N/A	
3. Procedures for managing excess materials and waste.	☐ Yes ☐ No ☐ N/A	
Design and Operations Report *1. Set out a site plan of the project location at which the renewable energy project will be engaged in, including,*		
REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
(a) one or more maps or diagrams of, i. all buildings, structures, roads, utility corridors, rights of way and easements required in respect of the renewable energy generation facility and situated within 300 metres of the facility,	☐ Yes ☐ No ☐ N/A	
ii. any ground water and surface water supplies used at the facility,	☐ Yes ☐ No ☐ N/A	
iii. any things from which contaminants are discharged into the air,	☐ Yes ☐ No ☐ N/A	
iv. any works for the collection, transmission, treatment and disposal of sewage,	☐ Yes ☐ No ☐ N/A	
v. any areas where waste, biomass, source separated organics and farm material are stored, handled, processed or disposed of,	☐ Yes ☐ No ☐ N/A	
vi. the project location in relation to any of the following within 125 metres: the portion of the Oak Ridges Moraine Conservation Plan Area that is subject to the Oak Ridges Moraine Conservation Plan, the area of the Niagara Escarpment Plan, the Protected Countryside, the Lake Simcoe watershed, and	☐ Yes ☐ No ☐ N/A	
v. any noise receptors or odour receptors that may be negatively affected by the use or operation of the facility,	☐ Yes ☐ No ☐ N/A	
A. a description of each item diagrammed under subparagraph i, and	☐ Yes ☐ No ☐ N/A	

Design and Operations Report *(continued)*		
REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
B. one or more maps or diagrams of land contours, surface water drainage and any of the following, if they have been identified in complying with this Regulation: properties described in Column 1 of the Table to section 19, heritage resources, archaeological resources, water bodies, significant or provincially significant natural features and any other natural features identified in the Protected Countryside or in the portion of the Oak Ridges Moraine Conservation Plan Area that is subject to the Oak Ridges Moraine Plan.	☐ Yes ☐ No ☐ N/A	
C. a description, map or diagram of the distance between the base of any wind turbines and any public road rights of way or railway rights of way that are within a distance equivalent to the length of any blades of the wind turbine, plus 10 metres,	☐ Yes ☐ No ☐ N/A	
D. a description, map or diagram of the distance between the base of any wind turbines and all boundaries of the parcel of land on which the wind turbine is constructed, installed or expanded within a distance equivalent to the height of the wind turbine, excluding the length of any blades, and	☐ Yes ☐ No ☐ N/A	
E. a description, map or diagram of the distance between the base of each wind turbine and the nearest noise receptor.	☐ Yes ☐ No ☐ N/A	
2. Set out conceptual plans, specifications and descriptions related to the design of the renewable energy generation facility, including a description of:		
REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
(a) any works for the collection, transmission, treatment and disposal of sewage, including details of any sediment control features and storm water management facilities,	☐ Yes ☐ No ☐ N/A	
(b) any things from which contaminants are discharged into the air,	☐ Yes ☐ No ☐ N/A	
(c) any systems, facilities and equipment for receiving, handling, storing and processing any waste, biomass, source separated organics, farm material and biogas, and	☐ Yes ☐ No ☐ N/A	
(d) if the facility includes a transformer substation, the works, facilities and equipment for secondary spill containment.	☐ Yes ☐ No ☐ N/A	

Design and Operations Report *(continued)* *3. Set out conceptual plans, specifications and descriptions related to the operation of the renewable energy generation facility, including a description of:*		
REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
(a) in respect of any water takings, i. a description of the time period and duration of water takings expected to be associated with the operation of the facility,	☐ Yes ☐ No ☐ N/A	
ii. a description of the expected water takings, including rates, amounts and an assessment of the availability of water to meet the expected demand, and	☐ Yes ☐ No ☐ N/A	
iii. an assessment of and documentation showing the potential for the facility to interfere with existing uses of the water expected to be taken.	☐ Yes ☐ No ☐ N/A	
(b) a description of the expected quantity of sewage produced and the expected quality of that sewage at the project location and the manner in which it will be disposed of, including details of any sediment control features and storm water management facilities,	☐ Yes ☐ No ☐ N/A	
(c) a description of any expected concentration of air contaminants discharged from the facility,t	☐ Yes ☐ No ☐ N/A	
(d) in respect of any biomass, source separated organics and farm material at the facility, i. the maximum daily quantity that will be accepted,	☐ Yes ☐ No ☐ N/A	
ii. the estimated annual average quantity that will be accepted,	☐ Yes ☐ No ☐ N/A	
iii. the estimated average time that it will remain at the facility, and	☐ Yes ☐ No ☐ N/A	
iv. the estimated average rate at which it will be used.	☐ Yes ☐ No ☐ N/A	
(e) in respect of any waste generated as a result of processes at the project location, the management and disposal of such waste, including, i. the expected types of waste to be generated,	☐ Yes ☐ No ☐ N/A	
ii. the estimated annual average quantity that will be accepted,	☐ Yes ☐ No ☐ N/A	
iii. and the estimated average time that it will remain in the facility, and	☐ Yes ☐ No ☐ N/A	
iv. the estimated average rate at which it will be used.	☐ Yes ☐ No ☐ N/A	

Design and Operations Report *(continued)*		
REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
(f) if the facility includes a transformer substation, i. a description of the processes in place to prevent spills,	☐ Yes ☐ No ☐ N/A	
ii. a description of the processes to prevent, eliminate or ameliorate any adverse effects in the event of a spill, and	☐ Yes ☐ No ☐ N/A	
iii. a description of the processes to restore the natural environment in the event of a spill.	☐ Yes ☐ No ☐ N/A	
4. Include an environmental effects monitoring plan in respect of negative environmental effects that may result from engaging in the renewable energy project, setting out:		
REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
(a) performance objectives in respect of negative environmental effects,	☐ Yes ☐ No ☐ N/A	
(b) mitigation measures to assist in achieving the performance objectives mentioned in subparagraph i,	☐ Yes ☐ No ☐ N/A	
(c) a program for monitoring negative environmental effects for the duration of the time that the project is engaged in, including a contingency plan to be implemented if any mitigation measures fail.	☐ Yes ☐ No ☐ N/A	
5. Include a response plan setting out a description of the actions to be taken while engaging in the renewable energy project to inform the public, aboriginal communities and municipalities, local roads boards and Local Services Boards with respect to the project, including,		
REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
(a) measures to provide information regarding the activities occurring at the project location, including emergencies,	☐ Yes ☐ No ☐ N/A	
(b) means by which persons responsible for engaging in the project may be contacted, and	☐ Yes ☐ No ☐ N/A	
(c) means by which correspondence directed to the persons responsible for engaging in the project will be recorded and addressed.	☐ Yes ☐ No ☐ N/A	

Design and Operations Report *(continued)*		
6. If the project location is in the Lake Simcoe watershed, a description of whether the project requires alteration of the shore of Lake Simcoe, the shore of a fresh water estuary of a stream connected to Lake Simcoe or other lakes or any permanent or intermittent stream and,		
REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
(a) how the project may impact any shoreline, including the ecological functions of the shoreline,	☐ Yes ☐ No ☐ N/A	
(b) how the project will be engaged in to, i. maintain the natural contour of the shoreline through the implementation of natural shoreline treatments, such as planting of natural vegetation and bioengineering, and	☐ Yes ☐ No ☐ N/A	
ii. use a vegetative riparian area, unless the project location is used for agricultural purposes and will continue to be used for such purposes.	☐ Yes ☐ No ☐ N/A	
REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
7. If it is determined that a project location is not on a property described in Column 1 of the Table to section 19 of O. Reg. 359/09, provide a summary of the matters addressed in making the determination.	☐ Yes ☐ No ☐ N/A	
8. If section 20 of O. Reg. 359/09 applies in respect of the project and it is determined that the project location does not meet one of the descriptions set out in subsection 20 (2) or that the project location is not in an area described in subsection 20 (3), provide a summary of the matters addressed in making the determination.	☐ Yes ☐ No ☐ N/A	
9. If subsection 21 (3) or 23 (2) of O. Reg. 359/09 applies, provide a summary of the matters addressed in making the determination, (a) under subsection 21 (3) or clause 23 (2) (a), as the case may be, including a copy of the document completed under the applicable provision, and	☐ Yes ☐ No ☐ N/A	
(b) under clause 23 (3) (b), if applicable.	☐ Yes ☐ No ☐ N/A	

Project Description Report *Set out a description of the following in respect of the renewable energy project*		
REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
1. Any energy sources to be used to generate electricity at the renewable energy generation facility.	☐ Yes ☐ No ☐ N/A	
2. The facilities, equipment or technology that will be used to convert the renewable energy source or any other energy source to electricity.	☐ Yes ☐ No ☐ N/A	
3. If applicable, the class of the renewable energy generation facility.	☐ Yes ☐ No ☐ N/A	
4. The activities that will be engaged in as part of the renewable energy project.	☐ Yes ☐ No ☐ N/A	
5. The name plate capacity of the renewable energy generation facility	☐ Yes ☐ No ☐ N/A	
6. The ownership of the land on which the project location is to be situated.	☐ Yes ☐ No ☐ N/A	
7. If the person proposing to engage in the project does not own the land on which the project location is to be situated, a description of the permissions that are required to access the land and whether they have been obtained.	☐ Yes ☐ No ☐ N/A	
8. Negative environmental effects that may result from engaging in the project.	☐ Yes ☐ No ☐ N/A	
9. If the project is in respect of a Class 2 wind facility and it is determined that the project location is not on a property described in Column 1 of the Table to section 19 of O. Reg. 359/09, a summary of the matters addressed in making the determination.	☐ Yes ☐ No ☐ N/A	
10. If the project is in respect of a Class 2 wind facility in respect of which section 20 applies and it is determined that the project location does not meet one of the descriptions set out in subsection 20 (2) or that the project location is not in an area described in subsection 20 (3), a summary of the matters addressed in making the determination.	☐ Yes ☐ No ☐ N/A	
11. An unbound, well marked, legible and reproducible map that is an appropriate size to fit on a 215 millimetre by 280 millimetre page, showing the project location and the land within 300 metres of the project location.	☐ Yes ☐ No ☐ N/A	

B. Consultation (Sections 14-18 of O. Reg. 359/09)

Consultation		
REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
1. Provided Director with a draft of the project description report to obtain a list of aboriginal communities.	☐ Yes ☐ No ☐ N/A	
Notices of Project and Meetings		
REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
1. In a form approved by the Director, a notice of the proposal to engage in the renewable energy project was distributed at least 30 days before the first public meeting was held and at least 60 days before the final public meeting was held, OR if only the notice of the proposal to engage in the project was required to be distributed, at least 30 days before the application for a renewable energy approval is submitted to the Director.	☐ Yes ☐ No ☐ N/A	
2. In a form approved by the Director, notices of the location and time of at least two public meetings to be held for the purpose of conducting consultations in respect of the renewable energy project were distributed at least 30 days before the first public meeting was held and at least 60 days before the final public meeting was held.	☐ Yes ☐ No ☐ N/A	
3. If the notices mentioned above were distributed together and in combination with any other notice in respect of the renewable energy project, section 15 of O. Reg. 359/09 was complied with in combining the notices, and the combined notices included a clear description of all of the notices that were being combined.	☐ Yes ☐ No ☐ N/A	
4. If the notices mentioned above were distributed separately, the notice of the proposal to engage in the renewable energy project was distributed before any of the public meetings notices.	☐ Yes ☐ No ☐ N/A	
Notices must be distributed in accordance with the following rules:		
REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
1. The notice must be published on at least two separate days in a newspaper with general circulation in each local municipality in which the project location is situated.	☐ Yes ☐ No ☐ N/A	
2. If the project location is in unorganized territory, i. the notice must be published on two separate days in a newspaper with general circulation within 25 kilometres of the project location, or ii. if no newspaper mentioned in subparagraph i exists, the notice must be posted in at least six conspicuous locations within 25 kilometres of the project location.	☐ Yes ☐ No ☐ N/A	

Notices of Project and Meetings *(continued)*		
REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
3. If it is reasonable to do so, the notice must be published in a newspaper printed by each aboriginal community on the list obtained under section 14 of O. Reg. 359/09, if the list was required to be obtained, and if such a newspaper exists and the publisher of the newspaper permits the publication.	☐ Yes ☐ No ☐ N/A	
4. If it is reasonable to do so, the notice must be published in a newspaper printed by each aboriginal community on the list obtained under section 14 of O. Reg. 359/09, if the list was required to be obtained, and if such a newspaper exists and the publisher of the newspaper permits the publication.	☐ Yes ☐ No ☐ N/A	
5. A copy of the notice must be given to, (a) every assessed owner of land within 120 metres of the project location, (a)[1] every assessed owner of land within 550 metres of the project location (for Class 3, 4 or 5 wind facility), (a)[2] every assessed owner of land abutting a parcel of land on which the project location is situated, other than an owner described in subparagraph (a) or (a)[1],	☐ Yes ☐ No ☐ N/A	
(b) every aboriginal community on the list obtained under section 14 of O. Reg. 359/09, if the list was required to be obtained, and any other aboriginal community that, in the opinion of the person who proposes to engage in the renewable energy project, has or may have constitutionally protected aboriginal or treaty rights that could be adversely impacted by the renewable energy project or otherwise may be interested in negative environmental effects of the project,	☐ Yes ☐ No ☐ N/A	
(c) the clerk of each local municipality and upper-tier municipality in which the project location is situated,	☐ Yes ☐ No ☐ N/A	
(d) the secretary-treasurer of each local roads board of a local roads area in which the project location is situated,	☐ Yes ☐ No ☐ N/A	
(e) the secretary of each Local Services Board of a board area in which the project location is situated,	☐ Yes ☐ No ☐ N/A	
(f) the secretary-treasurer of a planning board that has jurisdiction in an area in which the project location is situated,	☐ Yes ☐ No ☐ N/A	
(g) the chair of the Niagara Escarpment Commission, if the project location is in the area of the Niagara Escarpment Plan,	☐ Yes ☐ No ☐ N/A	

Notices of Project and Meetings *(continued)*		
REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
(h) the Director,	☐ Yes ☐ No ☐ N/A	
(i) the Ministry's district manager in each district in which the project location is situated,	☐ Yes ☐ No ☐ N/A	
(j) the secretary of every company operating an oil or natural gas pipeline, if a pipeline right of way for the pipeline is located within 200 metres of the project location, and	☐ Yes ☐ No ☐ N/A	
(k) the NAV Canada Land Use Office and Transport Canada's Regional Office for Ontario, if the project is in respect of a wind facility.	☐ Yes ☐ No ☐ N/A	
Consultation with Public		
REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
1. Held at least two public meetings, each on a separate day, in accordance with the following: (a) in each local municipality in which the project location is situated; and	☐ Yes ☐ No ☐ N/A	
(b) if the project location is in unorganized territory, i. within 25 kilometres of the project location, or ii. in the local municipality that is closest to the project location, if there is no appropriate place to hold a public meeting in the area described in subclause (i).	☐ Yes ☐ No ☐ N/A	
2. At least 30 days before the first public meeting, a draft of the project description report prepared in accordance with Table 1 of O. Reg. 359/09, must be made available by: (a) posting the drafts on the website of the person who proposes to engage in the renewable energy project, if the person has a website;	☐ Yes ☐ No ☐ N/A	
(b) making paper copies of the drafts available to the public in each local municipality and in each part of unorganized territory in which the project location is situated;	☐ Yes ☐ No ☐ N/A	
(c) making paper copies of the drafts available in any aboriginal community on the list obtained under section 14 of O. Reg. 359/09, if the aboriginal community agrees to the making of the drafts available in the community; and	☐ Yes ☐ No ☐ N/A	
(d) distributing the drafts to each aboriginal community mentioned in subparagraph 5 (b) above.	☐ Yes ☐ No ☐ N/A	

Consultation with Public *(continued)*		
REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
3. At the first public meeting, a draft of the project description report prepared in accordance with Table 1 of O. Reg. 359/09 was made available for inspection.	☐ Yes ☐ No ☐ N/A	
4. At least 60 days before the final public meeting, drafts of all documents required under Part IV of O. Reg. 359/09, other than the consultation report and documents described in clauses 22 (a), 23 (3) (a) and 28 (3) (b) and (c), and drafts of all documents for the purposes of obtaining an exemption from a provision of Part V of O. Reg. 359/09, other than the documents described in clauses 37 (2) (b) and (c), 38 (2) (b) and (c), 41 (5) (b) and (c) and 43 (3) (b) and (c), must be made available as follows: (a) posting the drafts on the website of the person who proposes to engage in the renewable energy project, if the person has a website;	☐ Yes ☐ No ☐ N/A	
(b) making paper copies of the drafts available to the public in each local municipality and in each part of unorganized territory in which the project location is situated;	☐ Yes ☐ No ☐ N/A	
(c) making paper copies of the drafts available in any aboriginal community on the list obtained under section 14 of O. Reg. 359/09, if the aboriginal community agrees to the making of the drafts available in the community; and	☐ Yes ☐ No ☐ N/A	
(d) distributing the drafts to each aboriginal community mentioned in subparagraph 5 ii above..	☐ Yes ☐ No ☐ N/A	
Consultation with Aboriginal Communities *Before drafts of documents are made available or distributed as set out above, the following must be distributed to each aboriginal community mentioned in subparagraph 5 (b) above, in a form approved by the Director:*		
REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
1. A draft of the project description report.	☐ Yes ☐ No ☐ N/A	
2. Any information the person has regarding any adverse impacts that the project may have on constitutionally protected aboriginal or treaty rights that the community may have identified as being adversely impacted by the project.	☐ Yes ☐ No ☐ N/A	

Consultation with Aboriginal Communities *(continued)*		
REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
3. A summary of drafts of all documents required under Part IV of O. Reg. 359/09, other than the consultation report and those described in clauses 22 (a), 23 (3) (a) and 28 (3) (b) and (c), and drafts of all documents for the purposes of obtaining an exemption from a provision of Part V of O. Reg. 359/09, other than those described in clauses 38 (2) (b) and (c), 41 (5) (b) and (c) and 43 (3) (b) and (c), in respect of which information is being requested under paragraph 4	☐ Yes ☐ No ☐ N/A	
4. A written request that the aboriginal community provide in writing any information available to the community that, in its opinion, should be considered in preparing a document summarized under paragraph 3, and in particular, any information the community may have about any adverse impacts that the project may have on constitutionally protected aboriginal or treaty rights and any measures for mitigating those adverse impacts.	☐ Yes ☐ No ☐ N/A	
Communicated with each aboriginal community regarding the following:		
REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
1. any constitutionally protected aboriginal or treaty rights that the community has identified as being adversely impacted by the renewable energy project; and	☐ Yes ☐ No ☐ N/A	
2. measures for mitigating any adverse impacts referred to in clause 1, including any measures identified by the community.	☐ Yes ☐ No ☐ N/A	
Consultation with Municipalities, Local Authorities *At least 30 days before the first public meeting and 90 days before the final public meeting, a consultation form must be distributed for the purpose of consulting on matters relating to municipal or local infrastructure and servicing, in a form and format approved by the Director, to the following:*		
REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
1. the clerk of each local municipality and upper-tier municipality in which the project location is situated;	☐ Yes ☐ No ☐ N/A	
2. the secretary-treasurer of the local roads board of each local roads area in which the project location is situated; and	☐ Yes ☐ No ☐ N/A	
3. the secretary of the Local Services Board of each board area in which the project location is situated.	☐ Yes ☐ No ☐ N/A	

C. Protected Properties, Archaeological and Heritage Resources (Sections 19-23 of O. Reg. 359/09)

***NOTE: For Class 2 wind facility; Class 1 or 2 anaerobic digestion facility; Class 1 thermal treatment facility, if the generating unit of the facility is located at a farm operation; and Class 2 thermal treatment facility, please refer to the requirements set out in sections 21 and 22 of O. Reg. 359/09 as the table below does not apply.*

Protected Properties		
REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
1. If the project location is on a property described in Column 1 of the Table to section 19 of O. Reg. 359/09, (a) a copy of the written authorization was provided, i. of the person or body set out opposite the description in Column 2 of the Table; and ii. of the type set out opposite the description in Column 3 of the Table.	☐ Yes ☐ No ☐ N/A	
(b) written confirmation from the person or body set out in Column 2 of the Table that authorization is not required.	☐ Yes ☐ No ☐ N/A	
Archaeological Assessment		
REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
1. If engaging in the renewable energy project may have an impact on an archaeological resource at the project location, (a) an archaeological assessment was conducted by a consultant archaeologist;	☐ Yes ☐ No ☐ N/A	
(b) an archaeological assessment report prepared by the consultant archaeologist was submitted to the Ministry of Tourism, Culture and Sport (MTCS);	☐ Yes ☐ No ☐ N/A	
(c) written comments were provided by MTCS in respect of the archaeological assessment; and	☐ Yes ☐ No ☐ N/A	
(d) the archaeological assessment report was included in the application.	☐ Yes ☐ No ☐ N/A	

Heritage Assessment

1. If engaging in the renewable energy project may have an impact on a heritage resource at the project location, other than at a part of the project location that is on a property described in Column 1 of the Table to section 19 of O. Reg. 359/09,

REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
(a) A heritage assessment was conducted consisting of: i. an evaluation of any heritage resources at the project location by applying the criteria set out in Ontario Regulation 9/06 (Criteria for Determining Cultural Heritage Value or Interest) made under the Ontario Heritage Act, and	☐ Yes ☐ No ☐ N/A	
ii. if any heritage resources are identified as a result of subparagraph i., an evaluation of any impact of the renewable energy project on the heritage resources and proposed measures to avoid, eliminate or mitigate the impact.	☐ Yes ☐ No ☐ N/A	
(b) a heritage assessment report was prepared summarizing theassessment conducted under clause (i);	☐ Yes ☐ No ☐ N/A	
(c) the report prepared under clause (ii) was submitted to the MTCS;	☐ Yes ☐ No ☐ N/A	
(d) written comments were provided by MTCS in respect of the heritage assessment; and	☐ Yes ☐ No ☐ N/A	
(e) the heritage assessment report was included in the application.	☐ Yes ☐ No ☐ N/A	

2. If engaging in the renewable energy project may have an impact on a property described in Column 1 of the Table to section 19 of O. Reg. 359/09 that abuts the parcel of land on which the project location is situated,

REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
(a) A heritage assessment was conducted consisting of an investigation, including historical research and visual inspection to determine whether: i. an evaluation of any heritage resources at the project location was conducted by applying the criteria set out in Ontario Regulation 9/06 (Criteria for Determining Cultural Heritage Value or Interest) made under the Ontario Heritage Act, and	☐ Yes ☐ No ☐ N/A	
ii. if any heritage resources are identified as a result of subparagraph i., an evaluation of any impact of the renewable energy project on the heritage resources and proposed measures to avoid, eliminate or mitigate the impact.	☐ Yes ☐ No ☐ N/A	

Heritage Assessment *(continued)*		
REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
(b) a heritage assessment report was prepared summarizing the assessment conducted under clause (i);	☐ Yes ☐ No ☐ N/A	
(c) the report prepared under clause (b) was submitted to the MTCS;	☐ Yes ☐ No ☐ N/A	
(d) written comments were provided by the MTCS in respect of the heritage assessment; and	☐ Yes ☐ No ☐ N/A	
(e) the heritage assessment report was included in the application.	☐ Yes ☐ No ☐ N/A	
3. If engaging in the renewable energy project has a low possibility of impact on a archaeological or heritage resource and there are no property described in Column 1 of the Table in section 19 of O. Reg. 359/09		
REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
(a) a written summary of the matters addressed in the consideration of the resource or property was submitted.	☐ Yes ☐ No ☐ N/A	

D. Natural Heritage (Sections 24-28 of O. Reg. 359/09)

Natural Heritage Assessment *Records Review*		
REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
1. Search for and analysis of the records set out in Column 1 of the Table to section 25 of O. Reg. 359/09 was conducted in respect of the project location for the purpose of making the determinations set out opposite the records in Column 2 of the Table	☐ Yes ☐ No ☐ N/A	
2. Report was prepared setting out a summary of the records searched and the results of the analysis conducted above, and report was submitted to the Ministry of Natural Resources.	☐ Yes ☐ No ☐ N/A	

Natural Heritage Assessment *(continued)* *Site Investigation*		
REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
1. A site investigation in accordance with the Table in section 26 of O. Reg. 359/09 was conducted, either by visiting the site or by an alternative investigation of the site, for the purpose of determining, (a) whether the results of the analysis summarized in the "records review" report are correct or require correction, and identifying any required corrections;	☐ Yes ☐ No ☐ N/A	
(b) whether any additional natural features exist, other than those that were identified in the "records review" report;	☐ Yes ☐ No ☐ N/A	
(c) the boundaries, located within 50 or 120 metres of the project location, of any natural feature that was identified in the records review or the site investigation; and	☐ Yes ☐ No ☐ N/A	
(d) the distance from the project location to the boundaries determined under clause (c).	☐ Yes ☐ No ☐ N/A	
2. A report was prepared and submitted to the Ministry of Natural Resources that sets out the following, (a) A summary of any corrections to the "records review" report and the determinations made as a result of conducting the site investigation.	☐ Yes ☐ No ☐ N/A	
(b) Information establishing the type of each natural feature identified in the records review and in the site investigation.	☐ Yes ☐ No ☐ N/A	
(c) A map showing, i. the boundaries located within 50 or 120 metres of the project location, of any natural feature that was identified in the records review or the site investigation,	☐ Yes ☐ No ☐ N/A	
ii. the location and type of each natural feature identified in relation to the project location, and	☐ Yes ☐ No ☐ N/A	
iii. the distance from the project location to the boundaries determined under clause 1 (d) above.	☐ Yes ☐ No ☐ N/A	
(d) A summary of methods used to make observations for the purposes of the site investigation.	☐ Yes ☐ No ☐ N/A	
(e) The name and qualifications of any person conducting the site investigation.	☐ Yes ☐ No ☐ N/A	

Natural Heritage Assessment *(continued)*		
REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
(f) If investigation was conducted by visiting the site: i. The dates and times of the beginning and completion of the site investigation.	☐ Yes ☐ No ☐ N/A	
ii. The duration of the site investigation.	☐ Yes ☐ No ☐ N/A	
iii. The weather conditions during the site investigation.	☐ Yes ☐ No ☐ N/A	
iv. Field notes kept by the person conducting the site investigation.	☐ Yes ☐ No ☐ N/A	
(g) If an alternative investigation of the site was conducted: i. The dates of the generation of the data used in the site investigation.	☐ Yes ☐ No ☐ N/A	
ii. An explanation of why the person who conducted the alternative investigation determined that it was not reasonable to conduct the site investigation by visiting the site.	☐ Yes ☐ No ☐ N/A	
Natural Heritage, Evaluation of Significance		
REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
If the project location is NOT (a) at least 50 metres outside of all areas of natural and scientific interest (earth science); and (b) at least 120 metres outside of all natural features that are not areas of natural and scientific interest (earth science), a report setting out the following was prepared and submitted to the Ministry of Natural Resources, 1. For each natural feature shown on the map mentioned in paragraph 3 of subsection 26 (3) of O. Reg. 359/09, a determination of whether the natural feature is provincially significant, significant, not significant or not provincially significant.	☐ Yes ☐ No ☐ N/A	
2. A summary of the evaluation criteria or procedures used to make the determinations mentioned in paragraph 1.	☐ Yes ☐ No ☐ N/A	
3. The name and qualifications of any person who applied the evaluation criteria or procedures mentioned in paragraph 2.	☐ Yes ☐ No ☐ N/A	
4. The dates of the beginning and completion of the evaluation.	☐ Yes ☐ No ☐ N/A	

Natural Heritage Assessment *(continued)* *Confirmation from Ministry of Natural Resources*		
REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
1. Confirmation in writing that the determination of the existence of natural features and the boundaries of natural features was made using applicable evaluation criteria or procedures set out in the Natural Heritage Assessment Guide.	☐ Yes ☐ No ☐ N/A	
2. If no natural features were identified, confirmation in writing that the site investigation and records review were conducted using applicable evaluation criteria or procedures set out in the Natural Heritage Assessment Guide.	☐ Yes ☐ No ☐ N/A	
3. Confirmation in writing that the evaluation of the significance or provincial significance of the natural features was conducted using applicable evaluation criteria or procedures set out in the Natural Heritage Assessment Guide.	☐ Yes ☐ No ☐ N/A	
4. If it was determined that the project location is not in a provincial park or conservation reserve, confirmation in writing that the Ministry of Natural Resources agrees with the determination.	☐ Yes ☐ No ☐ N/A	
5. If it was determined that the project location is in a provincial park or conservation reserve, confirmation in writing that engaging in the project is not prohibited by or under the Provincial Parks and Conservation Reserves Act, 2006.	☐ Yes ☐ No ☐ N/A	
6. For Class 3, 4 or 5 wind facilities, comments received from the Ministry of Natural Resources in writing in respect of the environmental effects monitoring plan.	☐ Yes ☐ No ☐ N/A	
7. The following were included as part of the application: (a) the plan and each report required to be prepared above, i.e., under subsections 25 (3), 26 (3) and 27 (4) of O. Reg. 359/09;	☐ Yes ☐ No ☐ N/A	
(b) a copy of any confirmation or comment required from the Ministry of Natural Resources; and	☐ Yes ☐ No ☐ N/A	
(c) any additional written comments provided by the Ministry of Natural Resources in respect of the natural heritage assessment.	☐ Yes ☐ No ☐ N/A	

E. Water (Sections 29-31 of O. Reg. 359/09)

Water Assessment *Records Review*		
REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
1. Search for and analysis of the records set out in Column 1 of the Table to section 30 of O. Reg. 359/09 was conducted in respect of the project location for the purpose of making the determinations set out opposite the records in Column 2 of the Table.	☐ Yes ☐ No ☐ N/A	
2. Report was prepared setting out a summary of the records searched and the results of the analysis conducted above.	☐ Yes ☐ No ☐ N/A	
Site Investigation		
REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
1. A site investigation of the land and water located within 120 metres of the project location was conducted, either by visiting the site or by an alternative investigation of the site, for the purpose of determining, (a) whether the results of the analysis summarized in the "records review" report are correct or require correction, and identifying any required corrections;	☐ Yes ☐ No ☐ N/A	
(b) whether any additional water bodies exist, other than those identified in the records review;	☐ Yes ☐ No ☐ N/A	
(c) the boundaries, located within 120 metres of the project location, of any water body that was identified in the records review or the site investigation; and	☐ Yes ☐ No ☐ N/A	
(d) the distance from the project location to the boundaries determined under clause (c).	☐ Yes ☐ No ☐ N/A	
2. If, as a result of the records review, the average annual high water mark of a lake trout lake that is at or above development capacity was identified within 300 metres of the project location, an investigation of the land and water located between the project location and the lake trout lake was conducted, either by visiting the site or by an alternative investigation of the site, for the purpose of determining, (a) whether the results of the analysis summarized in the "records review" report are correct or require correction, and identifying any required corrections;	☐ Yes ☐ No ☐ N/A	
(b) whether any additional water bodies exist, other than those that were identified in the "records review" report;	☐ Yes ☐ No ☐ N/A	

Water Assessment *(continued)*		
REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
(c) the boundaries of any lake trout lake that is at or above development capacity, if, (i) the lake was identified in the records review or the site investigation, and (ii) the boundaries are within 300 metres of the project location;	☐ Yes ☐ No ☐ N/A	
(d) the boundaries of any water body other than a lake trout lake that is at or above development capacity, if, (i) the water body was identified in the records review or the site investigation, and (ii) the boundaries are within 120 metres of the project location; and	☐ Yes ☐ No ☐ N/A	
(e) the distance from the project location to the boundaries determined under clause (c) and (d).	☐ Yes ☐ No ☐ N/A	
3. A report was prepared that sets out the following, (a) A summary of any corrections to the "records review" report and the determinations made as a result of conducting the site investigation.	☐ Yes ☐ No ☐ N/A	
(b) Information relating to each water body identified in the records review and in the site investigation, including the type of water body, plant and animal composition and the ecosystem of the land and water investigated.	☐ Yes ☐ No ☐ N/A	
(c) A map showing, i. the boundaries mentioned in clause (1) (c) or (2) (c) and (d),	☐ Yes ☐ No ☐ N/A	
ii. the location and type of each water body identified in relation to the project location, and	☐ Yes ☐ No ☐ N/A	
iii. the distances mentioned in clause (1) (d) or (2) (e).	☐ Yes ☐ No ☐ N/A	
(d) A summary of methods used to make observations for the purposes of the site investigation.	☐ Yes ☐ No ☐ N/A	
(e) The name and qualifications of any person conducting the site investigation.	☐ Yes ☐ No ☐ N/A	
(f) If the investigation was conducted by visiting the site: i. The dates and times of the beginning and completion of the site investigation.	☐ Yes ☐ No ☐ N/A	
ii. The duration of the site investigation.	☐ Yes ☐ No ☐ N/A	
iii. The weather conditions during the site investigation.	☐ Yes ☐ No ☐ N/A	
iv. Field notes kept by the person conducting the site investigation.	☐ Yes ☐ No ☐ N/A	

Water Assessment *(continued)*		
REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
(g) If an alternative investigation of the site was conducted: (h) The dates of the generation of the data used in the site investigation.	☐ Yes ☐ No ☐ N/A	
(i) An explanation of why the person who conducted the alternative investigation determined that it was not reasonable to conduct the site investigation by visiting the site.	☐ Yes ☐ No ☐ N/A	

F. Additional Reports (Section 13 of O. Reg. 359/09)

Effluent Management Plan Report *(for a Class 2 or 3 anaerobic digestion facility, Class 1, 2 or 3 thermal treatment facility)*		
REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
Set out a description of the following in respect of the renewable energy project: 1. The quality and quantity of all sewage that is expected to be produced by or at the renewable energy generation facility.	☐ Yes ☐ No ☐ N/A	
2. The manner in which the sewage mentioned in paragraph 1 is proposed to be treated and disposed of, including details of any sediment control features and storm water management facilities.	☐ Yes ☐ No ☐ N/A	
3. Mitigation measures to ensure that the sewage mentioned in paragraph 1 will not result in negative environmental effects on the quality of any water.	☐ Yes ☐ No ☐ N/A	
4. If the sewage mentioned in paragraph 1 is proposed to be discharged into surface water, the assimilative capacity of the receiving water body.	☐ Yes ☐ No ☐ N/A	
Emission Summary and Dispersion Modeling Report (ESDM) *(for a Class 3 anaerobic digestion facility, Class 1 thermal treatment facility if the generating unit of the facility is located at a location other than a farm operation, Class 3 thermal treatment facility, biogas facility, biofuel facility)*		
REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
1. Subject to section 57 of O. Reg. 359/09, report to be prepared in accordance with section 26 of O. Reg. 419/05 (Air Pollution — Local Air Quality) made under the Act.	☐ Yes ☐ No ☐ N/A	

Hydrogeological Assessment Report *(for a Class 2 anaerobic digestion facility if located on a farm and section 10 or 13 of O. Reg. 267/03 does not apply to the farm operation, Class 3 anaerobic digestion facility, Class 2 thermal treatment facility if section 10 or 13 of O. Reg. 267/03 does not apply to the farm operation, Class 3 thermal treatment facility)*		
REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
1. Report to be completed by one of the following persons after the person has conducted a hydrogeological assessment in respect of the renewable energy project: (a) A professional engineer. (b) A professional geoscientist. (c) A person working under the supervision of a person mentioned in subparagraph (a) or (b).	☐ Yes ☐ No ☐ N/A	
2. Set out the following information in respect of the renewable energy project: (a) Plans, specifications and descriptions of the geological and hydrogeological conditions of the land within 300 metres of any biomass storage areas, source separated organics storage areas, farm material storage areas, storage tanks and digester tanks.	☐ Yes ☐ No ☐ N/A	
(b) An assessment of the suitability of the project location for the handling, storage and processing of biomass, taking into account, i. the design of the facility, including existing features and features that are proposed to be implemented to control the expected production of leachate,	☐ Yes ☐ No ☐ N/A	
ii. the ability to identify, through monitoring, negative environmental effects that may result on ground water from leachate production, and	☐ Yes ☐ No ☐ N/A	
iii. the feasibility of contingency plans that could be implemented to control leachate produced in a quantity greater than expected or with a quality worse than expected.	☐ Yes ☐ No ☐ N/A	
Noise Study Report *(for a Class 3 anaerobic digestion facility, Class 1 thermal treatment facility when located anywhere other than a farm, Class 3 thermal treatment facility, biogas facility, biofuel facility, Class 3 solar facility)*		
REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
1. Report to be prepared in accordance with Appendix A of the publication of the Ministry of the Environment entitled, "Basic Comprehensive Certificates of Approval (Air) – User Guide", dated April 2004, as amended from time to time and available from the ministry.	☐ Yes ☐ No ☐ N/A	

Odour Study Report (for a Class 3 anaerobic digestion facility, biogas facility, biofuel facility, Class 3 thermal treatment facility)		
REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
1. Set our a description of the following in respect of the renewable energy project: (a) The significant process and fugitive sources of odour discharge from the renewable energy generation facility.	☐ Yes ☐ No ☐ N/A	
(b) Negative environmental effects that may result from the odour discharge mentioned in (a) at all odour receptors.	☐ Yes ☐ No ☐ N/A	
(c) The technical methods that are expected to be employed to mitigate negative environmental effects mentioned in (b) and negative environmental effects that are expected to result if the technical methods are employed.	☐ Yes ☐ No ☐ N/A	
Surface Water Assessment Report *(for a Class 2 anaerobic digestion facility if located on a farm and section 10 or 13 of O. Reg. 267/03 does not apply to the farm operation, Class 3 anaerobic digestion facility, Class 1, 2, or 3 thermal treatment facility)*		
REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
1. Report to be completed by one of the following persons after the person has carried out a surface water assessment in respect of the renewable energy project: (a) A professional engineer. (b) A professional geoscientist. (c) A person working under the supervision of a person mentioned in subparagraph (a) or (b).	☐ Yes ☐ No ☐ N/A	
2. Set out the following information: (a) Plans, specifications and descriptions of the surface water features at the project location and any surface water features that will receive a direct discharge of sewage as part of engaging in the project.	☐ Yes ☐ No ☐ N/A	
(b) An assessment of the suitability of the facility for the handling, storage and processing of biomass, source separated organics or farm material, taking into account, (i) the design of the facility, including features that will be implemented to control the expected production of leachate, the flow of surface water and erosion and sedimentation resulting from the flow of surface water,	☐ Yes ☐ No ☐ N/A	
Surface Water Assessment Report *(continued)*		

REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
ii. the surface water features within 300 metres of the location where biomass, source separated organics or farm material will be handled, stored or processed, any surface water features that will receive a direct discharge of sewage from the facility and the surface water features of the project location,	☐ Yes ☐ No ☐ N/A	
iii. the ability to identify negative environmental effects of leachate production on the surface water by monitoring, and	☐ Yes ☐ No ☐ N/A	
iv. the feasibility of contingency plans that can be implemented to control negative environmental effects on surface water resulting from the production of leachate in a quantity greater than expected or with a quality worse than expected.	☐ Yes ☐ No ☐ N/A	
Off-Shore Wind Facility Report *(for a Class 5 wind facility)*		
REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
Set out a description of the following: 1. The nature of the existing environment in which the renewable energy project will be engaged.	☐ Yes ☐ No ☐ N/A	
2. Negative environmental effects that may result from engaging in the renewable energy project.	☐ Yes ☐ No ☐ N/A	
3. Mitigation measures in respect of negative environmental effects identified in paragraph 2 and negative environmental effects that are expected to result if the measures are implemented.	☐ Yes ☐ No ☐ N/A	
Wind Turbine Specifications Report *(for a Class 2 wind facility)*		
REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
Provide: 1. All the manufacturer's specifications that are available in respect of the wind turbine.	☐ Yes ☐ No ☐ N/A	
2. The acoustic emission in terms of overall sound power level and the corresponding frequency spectrum, in terms of octave-band sound power levels.	☐ Yes ☐ No ☐ N/A	
Wind Turbine Specifications Report *(continued)*		

REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
3. A site plan, drawn to scale, including the project location, property boundaries, location of all proposed wind turbines and all noise receptors and public roads (within a 1 kilometre radius from the base of each wind turbine).	☐ Yes ☐ No ☐ N/A	
4. A table listing the distances from the base of each proposed wind turbine relative to each noise receptor diagrammed under paragraph 3 in metres.	☐ Yes ☐ No ☐ N/A	
(for a Class 3, 4, or 5 wind facility)		
REQUIRED DOCUMENTATION	REQUIREMENT MET	LOCATION IN SUBMISSION (section, page number)
Provide specifications of each wind turbine, including: 1. the make, model, name plate capacity, hub height above grade, rotational speeds.	☐ Yes ☐ No ☐ N/A	
2. the acoustic emissions data, determined and reported in accordance with standard CAN/CSA-C61400-11-07, "Wind Turbine Generator Systems – Part 11: Acoustic Noise Measurement Techniques", dated October 2007, including the overall sound power level, measurement uncertainty value, octave-band sound power levels (linear weighted) and tonality and tonal audibility.	☐ Yes ☐ No ☐ N/A	

G. Prohibitions (Part V of O. Reg 359/09)

Please provide details on how the REA application meets all applicable prohibitions under Part V of O. Reg. 359/09 (sections 33-55) referring to the relevant page numbers / sections of your submission.

Appendix 6: Project Changes: Typical Requirements and Process Impact Overview

Below is an overview of the project change categories and the potential impacts on the Renewable Energy Approval (REA) change process. While the project change process describes what may typically happen, it is important to note that the Director may impose any requirements, or only impose some or all requirements described. Further details on the change processes are located in Chapter 10 of this guide.

	ADMINISTRATIVE	TECHNICAL	PROJECT DESIGN	MAJOR PROJECT DESIGN
Factors for consideration in determining if a change falls into a category				
Overall Impact	**No bearing on the environmental effects.**	**No increase to environmental effects already identified that will or are likely to occur. Includes improvements to environmental effects.**	**Minimal increase to environmental effects that will or are likely to occur.**	**Substantial increase to environmental effects that will or are likely to occur.**
Project Location and Impact on Receptors	N/A	No increase in Project Location size **AND/OR** No increase (same or lower) in the overall impact at the receptors (e.g. noise, odour, etc.).	Change occurs within or outside a part of the original Project Location **AND/OR** Minimal increases in the overall impact at the receptors (i.e. noise, odour, etc.).	Change occurs within or outside a part of the original Project Location **AND/OR** Substantial increases in the overall impact at the receptors (i.e. noise, odour, etc.).
Cultural Heritage ***Archaeology*** *Additional requirements communicated through new comment letter*	N/A	No additional lands require archaeological assessment **AND** there are no changes to previous recommendations for further assessment.	Requires undertaking archaeological assessment (Stage 1/2) on lands not previously assessed that does not identify resources **AND** impact to previously identified archaeological resources remain unchanged OR requires undertaking a Stage 2 archaeological assessment within a previously assessed area AND impacts to previously identified archaeological resources remain unchanged.	Requires undertaking an archaeological assessment (Stage 1/2) on lands not previously assessed that identifies resources **OR** requires a Stage 3 archaeological assessment that was not previously required.

	ADMINISTRATIVE	TECHNICAL	PROJECT DESIGN	MAJOR PROJECT DESIGN
Cultural Heritage ***Heritage*** *Reconfirmed comments communicated through addendum to original comment letter.* *Additional conditions/ requirements communicated through new comment letter*	N/A	Reconfirm comments (i.e. letter still valid).		New lands assessed OR Previously identified resources are impacted in a different way.
Where confirmation and comments are not affected, communicated through an informal letter. *All other changes communicated through addendum to original comment letter.*	N/A	Reconfirmation of written confirmation and comments for natural heritage (i.e. no change) OR reduction in requirements (i.e. reduced footprint, reduced environmental effects monitoring plan requirements).	Additional natural heritage work required within a previously assessed area.	Additional natural heritage work required within a newly assessed area.
Typical Requirements				
Documentation *Modifications Document*	✔	✔	✔	✔
Update All Documents *(does not account for updating certain documents, as requested by Director)*	X	X	X	✔
Proponent Notification	X	Potentially	✔	✔
Public Consultation	X	X	Potentially	✔

	ADMINISTRATIVE	TECHNICAL	PROJECT DESIGN	MAJOR PROJECT DESIGN
Process Impacts				
Service Standards *(pre-REA only)*	Continue review.	Continue review or 'stop the clock' until documentation submitted.	Continue review or 'stop the clock' until documentation submitted.	May 'stop clock' or application deemed incomplete and returned.
EBR Postings *Pre-REA*	Additional posting unlikely	Additional posting unlikely	Additional posting unlikely, but potential for Proposal posting	Proposal posting
Post-REA	Information posting	Information posting	Information or Proposal posting	Proposal posting
Approval of change/ Appeals *(post-REA only)*	Notice of Amendment. Only change subject to appeal.	Notice of Amendment. Only change subject to appeal.	Notice of Amendment. Only change subject to appeal.	Revoke and Replace. Entire REA subject to appeal.