

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

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

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

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

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

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

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

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

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

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

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

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Part I – Definitions

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

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

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

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

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

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

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

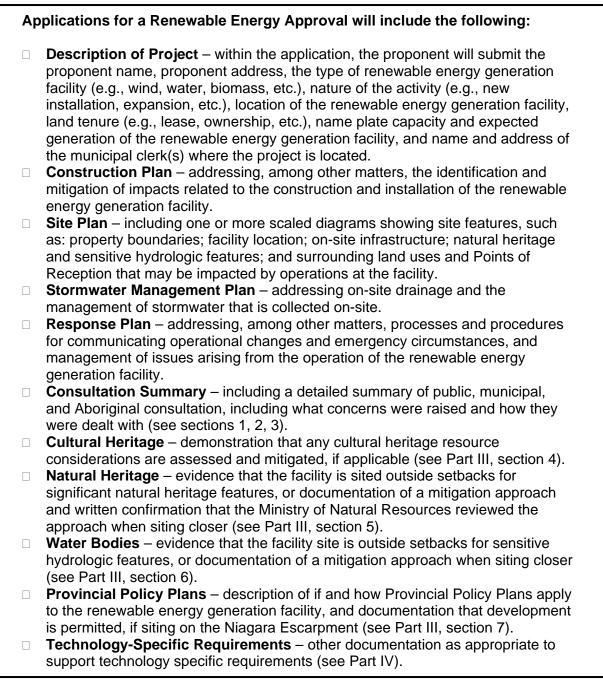
It is anticipated that the Ministry of Energy and Infrastructure will be defining the terms "biomass", "biogas" and "biofuel" in a proposed regulation under the *Electricity Act, 1998*. In defining these terms it is expected that the Ministry of Energy and Infrastructure will confirm existing usage of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

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Part II – Renewable Energy Approval Requirements

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



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

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Application Process

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

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

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

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

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

Transition

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

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

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

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

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

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

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

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

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

Third Party Appeal of Director's Decision

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

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

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

Part III – Explanation of General Requirements

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

1) Public Notice and Community Consultation

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

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

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

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

2) Municipal Consultation

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

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

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

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

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

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

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

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

3) Aboriginal Consultation

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

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

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

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

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

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

4) Cultural Heritage

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

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

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

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

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

5) Natural Heritage

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

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

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

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

^{*} For wetlands, refer to the Ministry of Natural Resources map "Ecoregions of Ontario"

Records Review and Site Investigation

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

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

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Minimum Setbacks Maintained

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

Assessment

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

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

Exception

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

6) Water Bodies

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

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

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

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Records Review and Site Investigation

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

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

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

Exception

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

7) Provincial Policy Plans

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

Niagara Escarpment

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

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Oak Ridges Moraine

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

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

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

Greenbelt

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

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

Lake Simcoe

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

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

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

Central Pickering

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

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Part IV – Explanation of Technology-Specific Requirements

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

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

A. Land-based Wind Turbine Facilities

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

Noise Setbacks

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

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

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

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

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

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

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

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

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

Small-Scale Wind Turbine Noise Requirements

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

Transformer Substation Noise Setbacks

It is proposed that transformer substations serving the wind turbine project without noise abatement are to be located at least 1000 metres from the nearest Point of Reception, and transformer substations with an acoustic barrier at least 500 metres from the nearest Point of Reception. It is proposed that the acoustic barrier should break the line of sight from the transformer to Points of Reception – a solid barrier with a surface density at least 20 kg/m² (kilograms per square metre).

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

Setbacks from Roads, Railways, and Property Lines

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

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Bird and Bat Studies

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

Decommissioning Plan

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

Conditions of Approval

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

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

B. Off-Shore Wind Turbine Facilities

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

Noise Requirements

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

Natural Heritage and Wildlife

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

Decommissioning Plan

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

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C. Biogas Facilities (Anaerobic Digesters)

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

Farm-Based Anaerobic Digesters that Process Agricultural Material

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

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

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

- Gas storage cover with a design permeability of <500 cm³/m²/day/bar; and
- Minimum average monthly input of 5% manure; and
- Digestate storage and flare sited at a distance equivalent to Minimum Distance Separation (MDS) calculation for digestate storages.

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

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

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

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

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Farm-based Anaerobic Digestion Facilities Accepting Regulated Waste

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

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

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

- Gas storage cover with a design permeability of <500 cm³/m²/day/bar; and
- Minimum average monthly input of 5% manure; and
- Digestate storage and flare sited at a distance equivalent to Minimum Distance Separation (MDS) calculation for digestate storages.

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

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

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

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

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

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

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

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

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

Non-Farm Based Anaerobic Digestion Facilities

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

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

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

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

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

- Gas storage cover with a design permeability of <500 cm³/m²/day/bar
- High efficiency flare system and,

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

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

D. Biomass Facilities (Thermal Treatment)

Thermal Treatment of Woodwaste

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

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

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

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

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

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

On-Farm Thermal Treatment of Mixed Biomass

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

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

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

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

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

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

Non-Farm Thermal Treatment of Mixed Biomass

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

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

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

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

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

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

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

E. Landfill Gas Facilities

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

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

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

F. Hydro Electric Facilities

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

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

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

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

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

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

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

Water Taking

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

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

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

Waste Management Activity

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

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

Emissions to Air or Land

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

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

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Large Scale Water Power Projects

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

G. Solar Photovoltaic Facilities

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

Decommissioning Plan

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

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

Noise Requirements

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

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