

For Information

DATE: February 4, 2010

REPORT TITLE: **THE GREEN ENERGY AND GREEN ECONOMY ACT, 2009 AND THE RENEWABLE ENERGY APPROVAL PROCESS**

FROM: Norma Trim, Chief Financial Officer and Commissioner of Corporate Services

OBJECTIVE

To advise Council about the important changes that have taken place with the enactment of the *Green Energy and Green Economy Act, 2009* (the Act) and the implications for municipalities.

REPORT HIGHLIGHTS

- The Act amends 21 other Acts, introduces major policy changes regarding approval of Renewable Energy Facilities (REFs) and uploads the planning responsibilities and processes for renewable energy facilities from municipalities to the Province.
- The Renewable Energy Approval (REA) process has been streamlined, and consultation with the public, municipalities and aboriginal communities is mandatory.
- The Act allows municipalities to develop REFs and participate in the Feed-In Tariff (FIT) program through which municipalities can generate green electricity to meet their own energy needs, raise revenue and protect against energy price fluctuations.
- REFs are generation facilities that generate electricity from a renewable energy source such as wind, solar, bio-energy and water.
- The Act creates five classes of REFs based on potential land use impacts, some of which are exempt from the REA.
- Regional Official Plan Amendment (ROPA) 20 energy policies conform to the Act and support the mandate of the Province to promote energy efficiency and sustainable development.

DISCUSSION**1. Background**

On April 2, 2009, staff reported on the *Green Energy and Green Economy Act, 2009* (the Act) and the possible implications for municipalities. Since then, the Act came into effect and a set of Regulations were released that outline the approval process for the development of Renewable Energy Facilities (REFs). REFs are generation facilities that generate electricity from a renewable energy source such as wind, solar, bio-energy and water. The Act repealed the *Energy Conservation Leadership Act, 2006*, and the *Energy Efficiency Act*, and amended several other statutes including the *Planning Act*, *Building*

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Code, Conservation Authorities Act and the *Environmental Protection Act*. The rationale behind the Act is to propel Ontario into a leadership position in renewable energy, stimulate efforts to reduce pollution and greenhouse gas emissions, create meaningful jobs for Ontarians and enhance community economic development for rural, remote First Nations communities. The amendments made to the *Planning Act* prohibit municipal official plans and by-laws from regulating REFs, thereby, "uploading" municipal responsibilities for approving the development of REFs to the Province. A set of regulations have been released that provide the details for implementing the Act, including the new Renewable Energy Approval (REA) process. Municipalities will be consulted as part of this new approval process.

2. Findings

a) Renewable Energy Approval (REA) Process

Ontario Regulation (O.Reg.) 359/09 is a new regulation under the *Environmental Protection Act*, to establish the requirements for obtaining a REA. The Regulation outlines what is required in the REA application (i.e. general requirements and technology-specific requirements by project type), transition rules and prescribed timeframes for tribunal hearings. Significant changes to the approvals of renewable energy facilities include:

- Renewable energy projects are no longer subject to the Environmental Assessment Act (except for waterpower and "transition" projects that were underway before the passing of the Act). However, the protections built into the Environmental Assessment process continue in the REA process;
- Rules regarding setback distances from residences where people reside and other sensitive receptors, as well as environmental features, now apply consistently across the province; and
- Renewable energy projects are no longer subject to land use planning instruments under the Planning Act (e.g. zoning by-laws and official plans).
- An application for a REA is submitted to the Ministry of the Environment for approval.

O.Reg. 359/09 established the following five Classes of REFs, based on potential land use impacts:

1. Class 1: projects considered to have a low probability of land use impacts and will not require an REA;
2. Class 2: projects considered to have some potential for land use impacts and will require a REA, but with reduced consultation and information requirements; and
3. Class 3: projects considered to have more potential for land use impacts and will require a REA with full supporting information requirements.
4. Class 4 wind facilities are 50 kW and over and are subject to all REA requirements, including property, road and noise setbacks.
5. Class 5 wind are offshore facilities of various size and configuration. These projects may be subject to Class 4 requirements with additional coastal/natural study requirements.

Appendix I describes the various REFs and when applications for REA are required, and Appendix II illustrates when certain types of projects require approvals from other

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ministries and approving bodies. The key steps in the REA process are highlighted in Appendix III.

b) Implications for the Region of Peel

i) Region Official Plan Amendment (ROPA) 20 Energy Policies

The new energy policies within ROPA 20 conform to the Provincial Growth Plan and commit the Region to reducing its current dependence on fossil-based energy sources and promotes reliance on alternative or renewable energy systems, while achieving a high quality of health for Peel's community, long-term economic prosperity and protection of the environment. ROPA 20 policies focus on energy efficiency through community planning and also aims to develop a culture of conservation in Peel, uphold sustainable development principles and move towards more sustainable green energy practices. These policy objectives relate closely to and support the principles of the Act. The Provincial modifications made to ROPA 20 as explained under a separate report of the Chief Financial Officer and Commissioner of Corporate Services, dated January 20, 2010 and titled, "Regional Official Plan Amendment Number 20 – Sustainability and Energy Policies – Provincial Modifications and Appeal", amend ROPA 20 to recognize the Act and clarify development exemptions under the new legislation.

ii) Feed-In Tariff (FIT)

Municipalities can develop an REF and generate up to 10 megawatts (MW) of electricity. 10 MW of energy can power approximately 3,000 homes. The Act however, does not place a limit on how much electricity a municipality can generate. Municipalities have always had the same right as the private sector to hold revenue generating electricity and thermal generation assets in a separate corporation. This can be seen today, for example, in municipally owned district heating corporations. The Act is permitting municipalities to earn income from generating up to 10 MW of electricity without the need for a separate corporation, so as to encourage municipal ownership of desirable smaller scale renewable energy assets such as roof top solar systems. The Region's electricity generating facilities are listed in Appendix VI.

Municipalities can either use the electricity generated to power their own facilities or increase their revenue through participation in the Ontario Power Authority (OPA) Feed-in Tariff (FIT) program by selling electricity onto the grid. Municipalities could realize benefits such as decreased energy expenditures that would offset monetary expenditures on electricity consumption and release funds for other municipal projects, safeguard against increasing and unpredictable fuel prices and, allow them to "green" their operations, thereby contributing to greenhouse gas reduction and climate change mitigation. The Act also requires municipalities to prepare and implement conservation and demand management (CDM) plans. The further use of renewable energy by the Region is in alignment with the Region's Energy Management Plan.

The OPA will issue contracts under the new FIT program to purchase power at guaranteed rates over 20 years from wind, solar and bio-energy facilities. Waterpower facilities will have guaranteed rates over 40 years. Appendix IV provides a breakdown of prices for renewable energy projects under the FIT program. There are two categories: projects that produce less than 10 kW (i.e.

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homeowner and small businesses) and those that produce more than 10 kW (i.e. for energy developers).

iii) Renewable Energy Approval (REA) Process and Municipal Consultation

The Province has set up the Renewable Energy Facilitation Office (REFO), for one-window access to help developers, communities and homeowners obtain information on creating renewable energy projects in Ontario. The REFO can help navigate through the new approvals and FIT processes by providing access to information, connecting applicants with the appropriate resources at partner ministries, agencies and governments and setting up a coordinated meeting to discuss project requirements.

Municipal consultation is mandatory for all projects requiring an REA, except for small wind projects (i.e. wind facilities on land that generate more than 3 kW but less than 50 kW and support 2 to 38 households). Appendix V outlines the requirements for public, municipal and aboriginal consultation.

The Development Services Division in Public Works will develop an internal protocol for reviewing and commenting on renewable energy projects under the REA process.

CONCLUSION

Regional staff has reviewed the Act and associated Regulations, including O.Reg. 359/09, which establishes a Renewable Energy Approval (REA) process. Renewable energy is a vital component in the government's strategy to achieve sustainable development, reduce greenhouse gas emissions and mitigate the effects of climate change. The legislation will increase the contribution of green energy into the electricity mix, and increase community ownership of local green energy generation, transmission and supply. Although municipalities do not have approval authority for the development of Renewable Energy Facilities (REFs), the REA requires applicants to consult with the public, municipalities and aboriginal communities. Development Services staff will develop an internal protocol for reviewing REA applications to ensure Regional interests are identified and communicated to applicants and the Province.



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Approved for Submission:



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c. Legislative Services

P-10-07

Renewable Energy Approvals for Renewable Energy Facilities

Type of Renewable Energy Facility (REF)	Is a Renewable Energy Approval (REA) Required?		Comments
	Yes	No	
Wind	Wind facilities (Class 1) with a nameplate capacity greater than 3 kW	Wind facilities with a nameplate capacity less than or equal to 3 kW	<ul style="list-style-type: none"> • Wind facilities equal to or less than 3 kW are typically purchased at hardware and outdoor stores • Class 1 turbines mounted on buildings may require building permits. For more information contact the local municipal building department
	Wind facilities (Class 2) over 3kW but less than 50 kW have fewer pre-submission requirements and do not need to meet the noise, property and road/rail setbacks		<ul style="list-style-type: none"> • Wind facilities greater than 3kW and less than 50 kW are produced by a number of Ontario and international manufacturers for residential, commercial and agricultural applications. While they do not need to meet setbacks, they are required to adhere to a streamlined set of requirements to comply with provincial noise limits • The structures supporting Class 2 wind turbines require municipal building permits under the Building Code Act, 1992
	Wind facilities (Class 3) equal to or greater than 50 kW with a sound power level less than 102 dBA have to meet property and road/rail setbacks		<ul style="list-style-type: none"> • Projects must meet additional requirements for proximity to water, noise, natural heritage and cultural heritage, depending on the location of the project

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Type of Renewable Energy Facility (REF)	Is a Renewable Energy Approval (REA) Required?		Comments
	Yes	No	
	Land-based wind facilities (Class 4 or 5) equal to or greater than 50 kW with a sound power level greater than or equal to 102 dBA are also subject to minimum noise setbacks		<ul style="list-style-type: none"> The structures supporting Class 3 wind turbines require municipal building permits under the <i>Building Code Act, 1992</i>
Solar	Ground mounted solar facilities (Class 3) with a name plate greater than 10 kW	Ground mounted solar less than or equal to 10 kW (Class 1)	<ul style="list-style-type: none"> Ground mounted solar facilities may require municipal building permits. For more information, contact the local municipal building department
		Rooftop and wall mounted solar of any size (Class 1 or 2)	<ul style="list-style-type: none"> Attaching of solar panels to buildings may require municipal building permits. For more information, contact the local municipal building department
Bio-energy	Facilities defined in the REA regulation as an anaerobic digestion, bio-fuel, biogas or thermal treatment facility. Anaerobic digestion facilities are separated into classes, with varying provincial requirements depending on the facility location, (e.g. on a farm), feedstock material (e.g. agricultural wastes), and size (e.g. greater or less than 500 kW). Class 1 at a farm operation, organic matter includes	Regulated mixed anaerobic digestion facilities or anaerobic digestion facilities processing non-regulated waste on farms are subject to a Nutrient Management Strategy	<ul style="list-style-type: none"> Anaerobic digestion facilities that do not require a waste certificate of approval and are already regulated by the <i>Nutrient Management Act, 2002</i> must abide by the setback distances identified in minimum distance separations (MDS), which municipalities use when issuing building permits for construction. Owners/operators of anaerobic digestion facilities must also manage materials according to an approved Nutrient Management Strategy

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Type of Renewable Energy Facility (REF)	Is a Renewable Energy Approval (REA) Required?		Comments
	Yes	No	
	biomass that is grown or harvested for the purpose of being used to generate electricity, biomass that is agricultural waste and, farm material; Class 2 at a farm operation, organic matter consisting of any biomass or a combination of biomass and farm material, other than organic matter that consists solely of organic matter described above; Class 3 at any location other than at a farm operation, organic matter consisting of one or more of the following – biomass, source separated organics and farm material.		
Water		All waterpower facilities	<ul style="list-style-type: none"> Waterpower facilities are subject to the requirements of the <i>Environmental Assessment Act</i> [e.g. a waterpower class Environmental Assessment (EA) or an individual EA for large projects] and require MOE and Ministry of Natural Resources permits and approvals

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Other Ministries and Approving Bodies for Renewable Energy Approval Applications

Ministry or Approving Body	When an Approval is Required	Permit or Approval Required
Ministry of Natural Resources	All projects on Crown land	Approval for work permits and/or tenure to occupy Crown land under the Public Lands Act
	When a project may: <ul style="list-style-type: none"> • 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 • Will damage or destroy the habitat of an endangered or threatened species on the Species at Risk in Ontario List 	Permits under the Endangered Species Act, 2007 (ESA)
	All projects involving: <ul style="list-style-type: none"> • The destruction of nests or eggs of birds –protected under the Fish and Wildlife Conservation Act (FWCA) • The destruction of a beaver dam, the den of a fur bearing mammal (other than a fox or skunk) • Interference with a black bear in its den 	Approval under the Fish and Wildlife Conservation Act (FWCA)
	Waterpower projects and some water crossings	Location Approval and Plans and Specifications Approval under the Lakes and Rivers Improvement Act
	When a project requires the removal and use of mineral aggregate material from the project location	Aggregate Permit (on Crown land) or license (on private land in a designated area), under the Aggregate Resources Act
	When a facility will use more than 1,000 cubic metres of Crown or private forest resources per year	Forest Resource Processing Facility License under the Crown Forest Sustainability Act, 1994

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Appendix II
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Ministry or Approving Body	When an Approval is Required	Permit or Approval Required
	When a project requires clearing and removal of Crown timber from the project location	Forest Resource License under the Crown Forest Sustainability Act, 1994
	When a project is proposed in an area already licensed for forest activities	Approval of a withdrawal of land from an area under a Forest Resource License or a Sustainable Forest License, under the Crown Forestry Sustainability Act, 1994
	When a project on Crown land or within a fire region will involve the burning of debris, grass, etc.	Permit under the Forest Fires Prevention Act
Ministry of Transportation	When project is in a Permit Control Area	<ul style="list-style-type: none"> • Application for Sign Permit • Application for Building and Land Use Permit/Entrance Permit • Application for Encroachment Permit
Conservation Authority	When the project is in an area regulated by a conservation authority under the Conservation Authorities Act and may affect the control of flooding, erosion, dynamic beaches or pollution	Permit
Niagara Escarpment Commission	When any renewable energy project is in an area of development control under the Niagara Escarpment Planning and Development Act	Niagara Escarpment Planning and Development Act Development Permit

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Key Steps in the Renewable Energy Approval Process

People interested in applying for approvals to engage in a renewable energy project should be aware that they may still be subject to approval by other levels of government. Under the new requirements, a proposed project must go through the following steps:

Step 1 – Pre-Submission Work

Before submitting an application for a Renewable Energy Approval (REA) to the Ministry of the Environment, the applicant must:

- Describe the facility and project location
- Assess and mitigate impacts and potential environmental effects associated with the project during:
 - Construction
 - Design and operation
 - Decommissioning
- Engage the public, municipalities and Aboriginal communities in discussions about the project
- If required, obtain a Development Permit issued by the Niagara Escarpment Commission
- Demonstrate how the project will meet setbacks depending on the class of project
- Prepare a report of the findings of any studies, along with their plans for constructing the project, operating and decommissioning the facility

Step 2 – Optional Consultation on Pre-Submission

In most cases, a coordinated pre-meeting may be appropriate particularly where a project requires multiple approvals. The Renewable Energy Facilitation Office (REFO) can help the applicant set up this meeting. Additionally, this is a good time in the process to consult with other approving authorities, such as the federal government and conservation authorities.

Step 3 – Complete Submission

The applicant provides all of the required information for provincial ministry approvals. This includes an REA application form and supporting forms, diagrams, assessments and reports to the Ministry of the Environment and any documents required by the Ministry of Natural Resources' Approval and Permitting Requirements document. Mandatory consultation requirements must also be met for the application to be considered complete

Step 4 – Public Notice to the Environmental Registry

Once an application is made for an REA, a notice of a proposal is posted on the Environmental Registry by the Ministry of the Environment so the public can review and provide comments.

Where other permits and approvals are subject to public notice requirements, additional notices may be posted on the Environmental Registry. Ministries will coordinate timing and content of the postings

Step 5 – Decision

After considering an application for the issue or renewal of an REA and all public comments received through the Environmental Registry, the Ministry of the Environment director may do either of the following:

- Issue, renew or amend an REA
- Refuse to issue, renew or amend an REA

The director notifies the applicant of the decision and posts it on the Environmental Registry. In coordination with the REA, other provincial ministries will make a decision on any additional approvals or permits required and, where required, will post decisions on the Environmental Registry at the same time as the Ministry of the Environment.

If a decision is made to approve the application, the applicant must get any remaining approvals necessary before starting construction. This includes, but is not limited to, a municipal building permit, the notice to proceed under the Feed-In Tariff (FIT) contract and any federal requirements.

Anyone can appeal the approval of a proposed renewable energy project. The Environmental Review Tribunal will have six months to assess whether or not the proposed project will cause serious harm to human health or serious and irreversible harm to plant life, animal life or the natural environment.

Ontario Power Authority Pricing for FIT and microFIT Programs

Renewable Fuel	Size Tranches	Contract Price ¢ per kWh	Escalation Percentage
Biomass			
	≤ 10 MW	13.8	20%
	> 10 MW	13.0	20%
Biogas			
On-farm	≤ 100 kW	19.5	20%
On-farm	> 100 kW ≤ 250 kW	18.5	20%
Biogas	≤ 500 kW	16.0	20%
Biogas	> 500 kW ≤ 10 MW	14.7	20%
Biogas	> 10 MW	10.4	20%
Waterpower			
	≤ 10 MW	13.1	20%
	> 10 MW ≤ 50 MW	12.2	20%
Landfill Gas			
	≤ 10 MW	11.1	20%
	> 10 MW	10.3	20%
Solar PV			
Any type	≤ 10 kW	80.2	0%
Rooftop	> 10 kW ≤ 250 kW	71.3	0%
Rooftop	> 250 kW ≤ 500 kW	63.5	0%
Rooftop	> 500kW	53.9	0%
Ground-mounted	> 10 kW ≤ 10 MW	44.3	0%
Wind			
On-shore	Any size	13.5	20%
Off-shore	Any size	19.0	20%

*OPA FIT program includes stipulations regarding local domestic content rules, and the FIT prices are reviewed every 2 years.

Source:

http://fit.powerauthority.on.ca/Page.asp?PageID=122&ContentID=10543&SiteNodeID=1103&BL_ExpandID=260

Renewable Energy Approval (REA) Consultation Requirements

Requirements for Public Consultation:

- At an early stage of project planning, the applicant must notify landowners within 120 metres of the proposed project location and place a notice in a local newspaper.
- Applicants must also hold at least two community consultation meetings at the beginning of the process, once the project concept is clear.
 - The first community consultation meeting takes place at the start of project planning.
 - A final public consultation meeting is required when the applicant has gathered all of the information needed to make an REA application.
 - While these two meetings are the minimum requirements set out in the REA regulation, applicants are encouraged to hold additional meetings with the local community throughout the project design and study period. These additional meetings are to ensure the community understands that the requirements set out under the regulations are being met, how potential impacts will be mitigated and to raise awareness about the benefits of the project.
- At least 60 days before an REA application is made, the applicant must make available for public review any studies related to the project that have been carried out.
- All projects for which an REA application has been submitted will be posted on the Environmental Registry for public comment by the Ministry of the Environment at the time of application and upon the issuance of a final decision.

Requirements for Municipal Consultation

- Municipal consultation is mandatory for all projects requiring an REA, except for small wind projects.
- Consultation with the municipality (or municipalities) in which the facility would be located is required to take place at least 90 days before submitting an REA application.
- The Ministry of the Environment provides applicants with a form that outlines what needs to be addressed with municipal officials. The form requests municipal feedback on matters related to:
 - Municipal services and infrastructure (such as the proposed road access)
 - The rehabilitation of areas disturbed and/or municipal infrastructure damaged during construction
 - Emergency management procedures/safety protocols related to the ongoing management of the facility
 - If the applicant is not able to provide all of the required information, the complete submission must explain why. In addition, the applicant must

describe and document efforts to address any issues raised during municipal consultation.

Requirements for Aboriginal Consultation

- Aboriginal consultation is mandatory for applicants of projects requiring an REA, except for small wind projects. The nature of the consultation will vary depending on the project.
- The applicant must contact the Ministry of the Environment for a list of Aboriginal communities that must be notified regarding the proposed project. The Ministry of the Environment will give the applicant, on behalf of the Crown, a list of communities that may have a potential interest in the environmental effects of the project or Aboriginal or treaty rights that may be affected by it. If a project is to be located on Crown land, this list will reflect what was already required by the Ministry of Natural Resources as part of the site release process.
- The applicant is encouraged to draw up and carry out a consultation plan. This includes giving notice and project information to Aboriginal communities early in the planning process and making best efforts to meet with them.
- The applicant must document the results of all consultation they conduct. The documentation is also required to outline any potential adverse affects on Aboriginal or treaty rights identified by the community and the measures proposed to address them.

Appendix VI
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Region of Peel Existing and Planned Electricity Generating Operations

The following table summarizes the existing and planned facilities that generate electricity and which are associated with the Region of Peel (either directly owned or private owned and participating in a contract with the Region).

Not included in this table are other renewable energy systems owned by the Region that do not produce electricity (i.e. facilities that produce solar hot water or which have geothermal heating and cooling systems).

	Renewable Energy Facility	Eligible for FIT	Electricity Generated	Comment
1.	Clarkson Wastewater Treatment Plant – Solar Flairs	No	10 kW Solar PV	Owned by the Region. Came online in 2007 (pre-FIT). Not eligible for FIT because cannot meet current program domestic content rules. Electricity generated is currently used to supply Clarkson Wastewater Treatment Plant.
2.	Algonquin Power Energy From Waste	No	9.3 MW Energy from waste	Private sector ownership. Energy from municipal solid waste is not considered renewable energy under the FIT program definition.
3.	Britannia Landfill Gas facility	Not known	5.2 MW Landfill gas	Private sector ownership, sharing electricity generation revenue with the Region. Currently participating in the Provincial Standard Offer Program for renewable energy.
4.	Malton Village Long Term Care	No	1 kW	Owned by the Region. Came online in 2008 (pre-FIT). Capacity too small to participate in FIT program. Electricity generated is used to supply Malton Village Long Term Care facility.
5.	Vera M Davis Long Term Care	Yes	30 kW	Owned by the Region. Currently under design. Commissioning is scheduled for summer 2010. Intending to participate in the FIT program.
6.	Tall Pines Long Term Care	Yes	10 kW	Owned by the Region. Currently under design. Commissioning is scheduled for summer 2010. Intending to participate in the FIT program.
7.	Police 11 Division	Yes	10 kW	Owned by the Region. Currently under design. Commissioning is scheduled for summer 2010. Intending to participate in the FIT program.