

A large graphic banner featuring a night view of a city with lights, overlaid with a white grid pattern. A wind turbine is visible on the right side of the banner. The title text is centered over the city lights.

Ontario's Green Energy Act

Government of Ontario

Presentation to 2010 Engineering Society of Detroit Alternative Energy
Conference

March 3, 2010

Context: Ontario's Green Energy Act

- The *Green Energy Act, 2009* (GEA) was enacted to:
 - Protect our environment, combat climate change and create a healthier future for future generations
 - Build a strong and green economy
- The implementation of many key initiatives is already underway. Today's presentation will focus on two key initiatives under the GEA:
 - **Ontario as a Renewable Energy Leader**
 1. Economic Incentive: Feed-in Tariff (FIT) Program
 2. Transmission and Distribution
 3. Regulatory Process
 4. The Renewable Energy Facilitation Office (REFO)
 - **Encourage Investment and Create Jobs**
 1. Build Transmission Capacity
 2. Domestic Content Requirements
 3. Renewable Energy Programs

Ontario as Renewable Energy Leader

1. Economic Incentive - Feed-in Tariff Program (FIT)

- Feed in Tariff: Standard prices for 20 years (40 years for waterpower) to promote the development of community-based and large commercial renewable energy (electricity) projects.
- The contracting body is the Ontario Power Authority (OPA), an agency of the Ministry of Energy and Infrastructure (MEI).
- The FIT mechanism provides proponents with a market-viable price for their projects. Prices vary by technology, and are designed to cover project costs and provide a reasonable rate of return to developers.
- The OPA will review the FIT program every two years; the review will include the pricing schedule and various support programs. A report will be sent to the Minister with results and suggestions for improvement.
- The FIT Program, for renewable energy generating projects larger than 10 kilowatts (kW), has now received more than 1,300 applications. The microFIT Program, for projects 10 kW or smaller, has received more than 4,400 applications.

Ontario as Renewable Energy Leader

2. Transmission and Distribution - Electricity Grid Capacity Availability

- There is presently approximately 2,500 megawatts of connection capacity available on Ontario's bulk transmission system.
- Given the success of the FIT launch, the demand for grid capacity currently exceeds the supply in Ontario.
- Investment of \$2.3 billion (\$USD 2.2 billion) towards grid expansion is planned over the next three years.
- The FIT program features a number of mechanisms devised to efficiently allocate the existing capacity and drive further network development based where it is needed.

Ontario as Renewable Energy Leader

3. Regulatory Process – Ministry of the Environment (MOE)

- The new Renewable Energy Approval (REA) regulation integrates and simplifies environmental approvals, providing clear provincial rules and requirements, transparent decision-making and certainty for stakeholders and proponents. Key features of this new process include:
 - ✓ A 6-month service guarantee
 - ✓ Consolidation of various former MOE approvals
 - ✓ Coordination between MOE and other ministries for approvals and permits
 - ✓ Removal of most local land use planning approvals
- Requirements for proponents under the REA include:
 - ✓ Public consultations to ensure local residents are heard
 - ✓ Consultation with municipalities on site requirements and local infrastructure
 - ✓ Minimum setbacks from dwellings and natural heritage features

Ontario as Renewable Energy Leader

4. Renewable Energy Facilitation Office (REFO)

- The province has established, the Renewable Energy Facilitation Office (REFO) in the Ministry of Energy and Infrastructure to:
 - ✓ Act as a one-window access point for information to assist renewable energy project proponents (developers, communities and municipalities).
 - ✓ Work with their partners at other ministries and the Ontario Power Authority to monitor projects from inception to construction to help proponents monitor their projects and keep them on track.
 - ✓ Advise proponents of potential requirements imposed by the Government of Canada such as triggers for approvals from the Canadian Environmental Assessment Agency.
 - ✓ Through information obtained from proponents, provide feedback to the Ministry on the overall efficiency of the new policies and identify areas for improvement.
- Contact the REFO:
 - Tel: 416-314-9473 or 1-877-440-REFO (7336)
 - Email: REFO@ontario.ca
 - Website: www.ontario.ca/renewableenergyprojects

Encourage New Investment and Green Jobs

1. Build Transmission Capacity

- 1,200-1,500 megawatts of additional transmission capacity will be delivered through the Bruce to Milton transmission project and is expected to come into operation in 2013.
- Twenty transmission projects as well as investments into the distribution network were announced last September to ensure there is enough capacity for renewable generation to help meet the demand from the FIT and the Green Energy Act.
- The projects represent an investment of about \$2.3 billion over the next three years, and are expected to create about 20,000 jobs.
- Planning for six core transmission network upgrades is moving forward.

Encourage New Investment and Green Jobs

2. Domestic Content Requirements

- Domestic content provisions within the FIT program help to ensure that the technology and the solutions behind renewable energy generation will be based in Ontario.
- Wind and solar developers will be required to have a certain percentage of their project costs come from Ontario goods and labour at the time they reach commercial operation.
- For wind, the requirement starts at 25% and increases to 50% on January 1, 2012.
- For micro solar photovoltaic (PV) projects (10 kilowatts or smaller), the requirements starts at 40% and increases to 60% on January 1, 2011.
- For larger solar PV projects, the requirement starts at 50% and increases to 60% on January 1, 2011.

Encourage New Investment and Green Jobs

3. Renewable Energy Programs

- As part of the GEA, under the FIT program, the OPA was directed to develop and deliver three additional Programs as follows:
 1. **Municipal Renewable Energy Program (MREP)** – a program to ensure that municipalities, in hosting renewable energy facilities within their communities, are able to be reimbursed for certain costs incurred directly as a result of facilitating the development of these facilities.
 2. The **Aboriginal Energy Partnerships Program (AEPP)** will provide provincial support to Aboriginal communities considering renewable generation projects. The program is being administered by the OPA and is expected to be launched in Spring of 2010.
 3. The **Community Energy Partnership Program** will provide one-time funding support to community groups to assist them with the developmental costs associated with renewable energy projects. The program will be managed through the OPA, which will retain a third-party agent to operate it. It is expected that the program will launch in Spring of 2010.

Appendix

FIT Prices

Feed-In Tariff Prices				
Renewable Fuel	Type	Size tranche	Contract Price ¢/kWh	Escalation Percentage**
Biomass* [^]		≤ 10 MW	13.8	20%
		> 10 MW	13.0	
Biogas* [^]	On-Farm	> 10 kW ≤ 100 kW	19.5	20%
		> 100 kW ≤ 250 kW	18.5	
	Any type	≤ 500 kW	16.0	
		>500 kW ≤ 10 MW	14.7	
		> 10 MW	10.4	
Waterpower* [^]		≤ 10 MW	13.1	20%
		> 10 MW <50 MW	12.2	
Landfill gas* [^]		≤ 10MW	11.1	20%
		> 10 MW	10.3	
Solar PV	Any type	≤10 kW	80.2	0%
	Rooftop	> 10 ≤ 250 kW	71.3	
		> 250 ≤ 500 kW	63.5	
		> 500 kW	53.9	
	Ground Mounted [^]	> 10 kW ≤ 10 MW	44.3	
Wind [^]	Onshore	Any size	13.5	20%
	Offshore	Any size	19.0	

*Peak Performance Factor of x 1.35 during On-Peak and x 0.9 during Off-Peak applies for non-microFIT projects.

[^]Aboriginal Price Adder and Community Price Adder eligible as outlined below for non-microFIT projects.

**Escalation Percentage based on the Consumer Price Index will be applied to eligible Renewable Fuels as calculated in FIT Contract. The Base Date is September 30, 2009