



Ontario Power Authority™

BACKGROUND

Proposed Green Energy Act sparks changes

The Green Energy Act, if passed, would establish Ontario as North America's leader in renewable energy, drive green investment in the province and create 50,000 jobs in the first three years.

The proposed GEA was introduced in the Ontario Legislature on Feb. 23, 2009. The legislation, and the expected regulatory changes and policies that would flow from it, include a range of measures intended to foster a culture of conservation and encourage the development of renewable energy projects. Complementary to the GEA, the proposed feed-in tariff program (FIT) would guarantee specific prices for energy generated from renewable sources and drive investment to Ontario.

What is a feed-in tariff program?

A FIT program is a simpler way to contract for renewable energy generation. It is simpler because of standardized program rules and standardized contracts, including standardized prices. Developers of renewable energy projects would receive a FIT contract if they meet all program requirements.

Benefits of Ontario's proposed FIT program

Ontario's proposed FIT program would have several key features. It would:

- provide a simpler way to contract for generation
- be open to various renewable energy technologies (full list: wind, waterpower, solar and bio-energy technologies)
- allow all types of generators, from homeowners to private developers, to participate
- have different prices for different technologies and project sizes
- have prices that cover total project costs and provide a reasonable rate of return over a long-term contract (20 years)
- provide incentives for First Nation, Métis and community-based projects
- offer long-term price guarantees to increase investor confidence and access to financing
- provide a right to connect based on shared reasonable costs

Proposed FIT prices

Proposed prices are outlined in the News Release. These will be refined with energy stakeholder input during eight weeks of consultations from March 17 to May 5.

Waterpower and bio-energy will receive a higher price on-peak hours – 35% higher from 11am to 7pm on business days – and a 10% lower price during off-peak hours.

The proposed FIT prices for solar photovoltaic (PV) projects are designed to kick-start the solar PV industry in Ontario. Solar PV is a rapidly developing and growing industry with potential for price reductions in the coming years. There are just over 100 rooftop installations in operation in Ontario for a total of approximately 0.5 megawatts.

The proposed FIT prices were derived from a range of sources using best available and most recent information. Prices were developed based on experience here in Ontario and in other jurisdictions. They cover building and maintenance costs and allow for a reasonable rate of return on investment over an approximate 20-year period, and the basic connection costs for typical projects.

Sample projects and typical project costs

For example, a homeowner in Ontario would be looking at a residential scale Solar PV project of about 3 kilowatts, which costs around \$30,000. This would provide enough electricity to meet one third of their consumption and would generate about \$7 per day. This payment would result in approximately \$2,500 in revenue per year for the homeowner, resulting in about a 12-year payback (see illustration on next page). In addition, the government is expected to introduce plans to provide low-cost financing for residential renewable projects, including solar thermal, solar PV and ground-source heat pumps.

A farm-based 250 kW bio-digester would cost around \$1.7 million to install, and could earn back this investment in about a 12-year time frame, depending on its operation.

A 10 MW, community-owned wind farm in Ontario would cost around \$32 million to construct, and is expected to have a 10-year payback.

Realizing the Potential for Renewable Energy

In order of 1,000 MW have reached commercial operation and are generating clean, green electricity from wind, water, sun and bio-based resources. The proposed FIT Program will encourage further investment in generation, transmission and distribution to facilitate greater incorporation and use of renewable energy sources.

Ontario's system could incorporate many more thousands of MW of additional renewable supply over the next five years through the FIT Program. How much electricity will be generated from each type of renewable fuel source is uncertain.

Typical Solar PV application

	TYPE	SIZE	DESCRIPTION	SPACE (SQ. FEET)
	Residential	3 kW	houses	220
	Small retail	5 kW	corner store	360
	Small commercial	50 kW	schools, apartments, condos, municipal building	3,650
	Large commercial	300 kW	big box stores or strip mall	22,000
	Large industrial	750 kW	industrial warehouse	55,000

Energy Agency Involvement

Successful implementation of a FIT Program will require changes across the energy sector that enable renewable energy to be brought into service more quickly and efficiently. The Ontario Energy Board (OEB), the Independent Electricity System Operator (IESO) and transmitters and distributors would work together to bring more renewable electricity generation online in Ontario. The OPA will establish a simplified process for residential micro-scale projects of 10kW or smaller.

Stakeholder Involvement

From March 17, 2009 to May 5, 2009, the OPA will host a series of weekly consultation sessions with renewable energy stakeholders. These consultation sessions will be used to seek input and feedback, including from large and small renewable energy suppliers, on proposed FIT program rules and contracts. Renewable energy stakeholders include any person in the province that could generate and supply renewable energy to the grid ranging from large-scale commercial developers to micro-scale project developers, homeowners and farmers.

Full day consultation sessions will be held on a weekly basis with about 200 stakeholders. The sessions are open to the public. Stakeholders are also invited to listen-in by webcast or teleconference.

The OPA will establish a FIT web page on its website (www.powerauthority.on.ca) for general information where all documentation from the consultation sessions will be publicly available. People will also be able to get questions answered online.

Launch of new pricing system

If the Green Energy Act is passed, the OPA would expect to be in a position to quickly implement the FIT program this summer.