

Renewable Energy Programs in Canada

Ontario

Feed-In Tariff (FIT) Program

In order to promote a clean air environment, develop a renewable energy industry, and create jobs in Ontario, the provincial government demonstrated its commitment to these principles by passing the *Green Energy and Green Economy Act* (Bill 150) in 2009 and Ontario's Long-Term Energy Plan in 2013. The Independent Electricity Operator Authority (IESO) released its Feed-in Tariff (FIT) program to incentivize the investment towards renewable energy sources such as On-shore Wind, Waterpower, Biogas, Landfill Gas, Biomass and Solar (PV) for electricity generating projects in the province. This was done to help make the technology cost competitive with highly subsidized forms of energy such as fossil fuels and nuclear as well as reduce pollutants and greenhouse gas emissions. Currently, FIT programs are being implemented worldwide based on their ability to successfully increase renewable energy market penetration.

IESO has two different types of programs:

Type of program	Electricity Generating Capacity
FIT	Greater than 10 kW and up to 500 kW
MicroFIT	10kW or under

The IESO FIT contracts offer guaranteed payments to the system owner over a 20-year period (with the exception of Waterpower which offers a 40 year contract) for electricity delivered into the local utility grid from systems greater than 10 kW up to 500 kW in size. The program is open to all types of generators including businesses, co-operatives, developers, and Aboriginal communities.

The microFIT Program was launched in 2009 and provides homeowners and other participants with the opportunity to develop a small renewable electricity generation project that are 10 kW or under in size on their property.

Procurement Targets

The Ministry of Energy announced that an annual window with a 150 MW procurement target will be opened for the small FIT program. Any unused capacity from a previous window will be allocated to the subsequent window. For smaller (primarily residential) PV systems under 10 kW, applications can be made to the microFIT program which has a simpler and more streamlined application and connection process. An annual window with a 50 MW procurement target will be opened for the microFIT program.

FIT and MicroFIT Price Schedule for 2017

FIT/microFIT PRICE SCHEDULE (January 1, 2017)

Renewable Fuel	Project Size Tranche*	Price (¢/kWh)	Percentage Escalated**
Solar (PV) (Rooftop)	≤ 6 kW	31.1	0%
	> 6 kW ≤ 10 kW	28.8	0%
	> 10 kW ≤ 100 kW	22.3	0%
	> 100 kW ≤ 500 kW	20.7	0%
Solar (PV) (Non-Rooftop)	≤ 10 kW	21.0	0%
	> 10 kW ≤ 500 kW	19.2	0%
On-Shore Wind	≤ 500 kW	12.5	20%
Waterpower	≤ 500 kW	24.1	20%
Renewable Biomass	≤ 500 kW	17.2	50%
On-Farm Biogas	≤ 100 kW	25.8	50%
	> 100 kW ≤ 250 kW	20.0	50%
Biogas	≤ 500 kW	16.5	50%
Landfill Gas	≤ 500 kW	16.8	50%

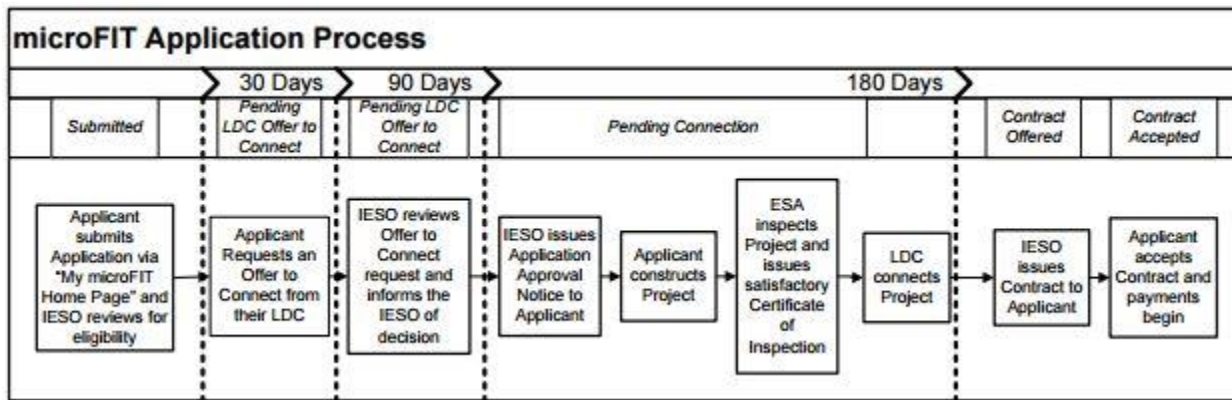
* The FIT Program is available to Projects generally ≤ 500 kW.

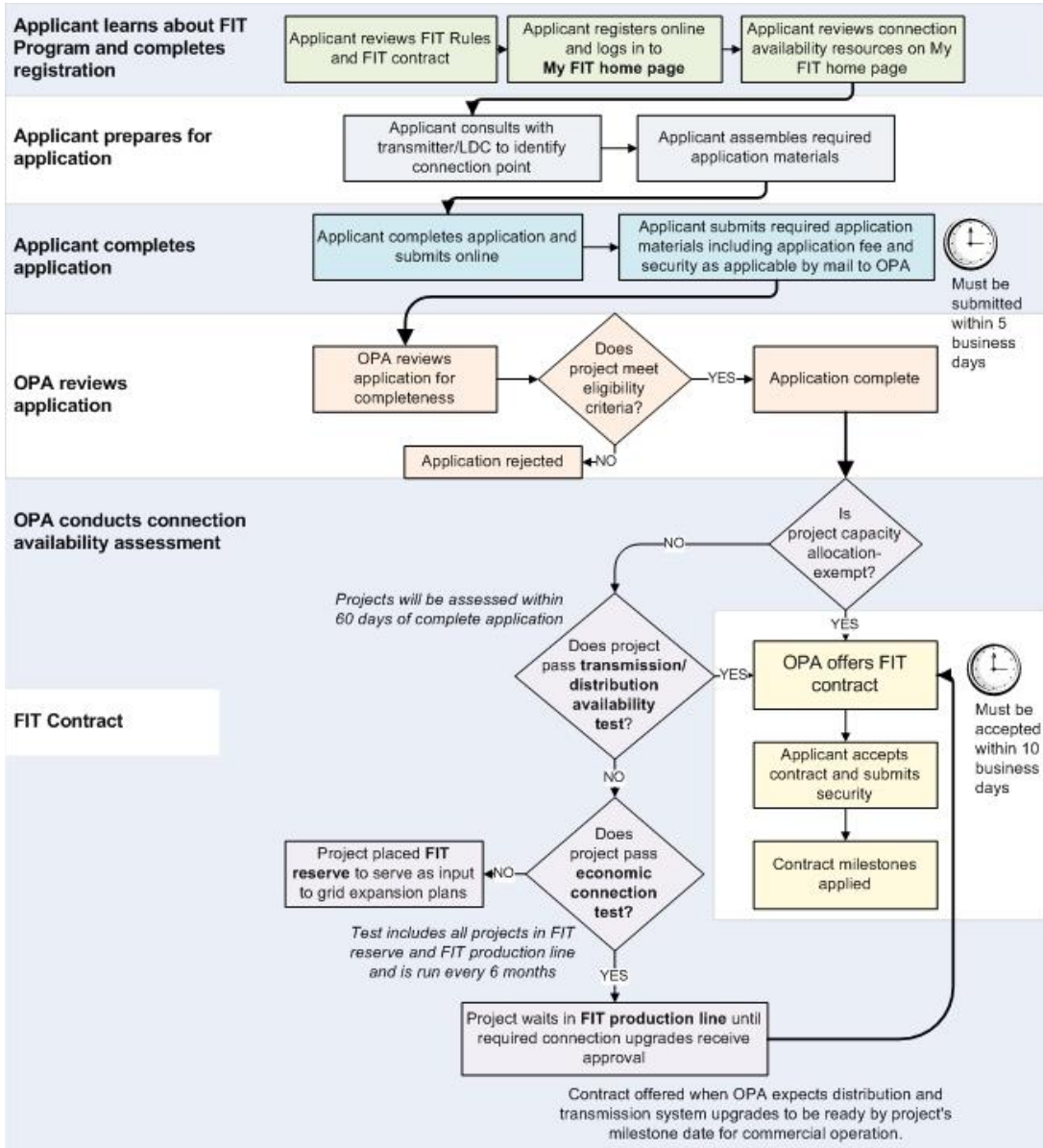
**The Percentage Escalated is the percentage of the Contract Price (indicated in this chart and to be reflected, as applicable, on the FIT Contract Cover Page) that escalates on the basis of the Consumer Price Index (CPI). The Percentage Escalated will be applied to eligible Renewable Fuels as calculated in the FIT Contract. Per the Exhibit B in the FIT Contract, the CPI (CPI_{COO}) used in those calculations will be that which is applicable to the month of January in the calendar year in which the Project achieves Commercial Operation, unless the Project achieves Commercial Operation in October, November, or December, in which case the CPI will be that which is applicable to the month of January in the following calendar year.

Internat Energy Solutions Canada (IESC) can manage the entire application process on behalf of interested clients of the FIT Program and MicroFIT Program including filling out forms, assembling documents and submitting the documents.

As stated in the [FIT application rules](#), for solar rooftop FIT projects, IESC will also provide a written confirmation in [prescribed form](#) from a Professional Engineer.

The MicroFIT and FIT application processes were also reviewed by IESO while taking suggestions from many industry groups and stakeholders. The recommended application timelines are summarized in the charts below.





Alberta

Micro-generation

In 2008, Alberta Utilities Commissions (AUC) implemented the Micro-Generation Regulation. This regulation allows customers to generate their own renewable electricity. Customers cannot sell the electricity. However, they can receive credit from any excess electricity they send back into the grid.

In order to qualify for this program, customers can choose invest in small scale micro-generation projects or large scale micro-generation projects:

Type of program	Electricity Generating Capacity
Large	Greater than 150 kW and under 1 MW
Small	Less than 150 kW

Alberta Renewable Electricity Program (REP)

To meet its target of 30% renewable electricity by 2030, Alberta will be [phasing out their coal-generation plants](#) and replacing it by renewable energy and natural gas-fired electricity. The province will be adding 5000 MW of electricity generating capacity from the Renewable Energy Program which is managed and run by the Alberta Electric System Operator (AESO). Results of Round 1 of the REP were announced on December 2017. REP Round 2 has a procurement target of up to 300 MW and must include a minimum 25 per cent Indigenous equity ownership. REP Round 3 has a procurement target of up to 400 MW.

In order to qualify for this program:

- The project must be based in Alberta
- Should be 5 MW or greater
- The project must meet the criteria of [Natural Resources Canada's definition of renewable sources](#) (Hydroelectricity, Bioenergy, Wind Power, Solar Energy, Geothermal Energy and Ocean Energy)
- Requires projects to be operational by the end of 2019
- Projects should connect to existing transmission or distribution infrastructure to avoid indirect cost to electricity consumers

Alberta Indigenous Green Energy Development Program

The Alberta Indigenous Green Energy Development Program (AIGEDP) supports Alberta Indigenous communities and organizations acquire an ownership stake in Alberta's growing renewable energy sector. The focus of this program is to develop projects that can lead to a significant reduction in GHG emissions in Alberta. The AIGEDP assists two separate funding streams for activities:

- Project Development which includes supporting projects from the earlier development stage such as pre-feasibility and feasibility studies and business plans
- Project Implementation

Residential and Commercial Solar Program

The Residential and Commercial Solar Program provides rebates to homeowners, businesses and non-profits that install solar photovoltaic (PV) units. The program is available for up to 15 kW for residential and up to 5 MW for commercial or non-profit applications. Projects that are eligible must be compliant with the Micro-generation Regulation.

The program is available to customers with properties located in Alberta and provides a rebate of \$0.75/watt and aims to reduce total eligible system costs by up to 30% for homeowners and up to 25% for businesses and non-profits.

Saskatchewan

Saskatchewan currently has two programs to encourage investments in renewable energy technologies – Net Metering Program and Small Power Producers Program.

Small Power Producers Program

The Small Power Producers Program encourages homeowners, businesses, farms and communities to generate and sell environmentally preferred technologies such as Wind, Solar, Biogas and biomass, Flare gas, heat recovery and low-impact hydro up to 100 kW in order to offset power that is generally purchased from SaskPower. The program offers a 20-year contract (with the exception of hydro projects which offers a 40 year contract) who can sell their electricity to SaskPower. The price of electricity that is sold to SaskPower is increased by 2% every year. Small power producers can either sell all the power they produce or only sell excess of what they do not use.

Net Metering Program

The province is offering a one-time rebate of 20% up to a maximum of \$20,000 for an approved net metering project. The rebate is available to customers of SaskPower, Saskatoon Light & Power and City of Swift Current until November 30, 2018.

Nova Scotia

The province is committed to source 45% of their electricity from renewable energy sources. The Community Feed-In-Tariff (COMFIT) program was an integral part of Nova Scotia's *Renewable Electricity Plan* which was launched in 2010 and has been officially ended in 2015. There are other programs that would allow the residents of Nova Scotia to invest in renewable energy technologies to generate electricity. In November 2016, the government also announced that it is currently exploring the viability of commercial solar power in the province. Details of a pilot project will be released shortly.

Enhanced Net Metering

Nova Scotia Power Inc.'s (NSPI) Enhanced Net Metering program encourages homes and commercial businesses to invest in renewable energy sources. The enhanced net metering program provides businesses and homeowners with the opportunity to develop a renewable electricity generation project up to 100kW in size on their property. Participants can either apply for a project that is 10kW or less or between 11kW and 100kW. In order to monitor and record the flow of electricity to and from a home or a business, a bi-directional electricity meter needs to be installed.

If at the end of billing period, a customer produced a surplus of electricity, the customer will receive a credit on their next bill. If at the end of a year the customer still generated more electricity than they have consumed, NSPI will provide cash payment for the surplus energy at the same rate they pay for electricity from the grid.

NSPI does not design, engineer or install generating systems for its customers. IESC can assist in the designing, engineering, installing and managing the application process on behalf of their customers.

Manitoba

Solar Energy Program

The Solar Energy Program is intended for residential, commercial and industrial customers who would like to generate their own electricity using solar panels and sell the excess electricity back to Manitoba Hydro. The electricity generating capacity for this program starts from 1 kW up to 200 kW. Manitoba Hydro also incentivizes the customer for \$1 per watt installed and pays the incentive at the end of the project, once the system is installed and has passed its inspection.

Other programs

There are also some more programs that encourage investments in renewable energy projects. These programs are listed in the table below:

Province	Type of Program	Electricity Generating Capacity	Eligibility
British Columbia	Standing Offer Program	Over 100 kW – 15 MW	Commercial and industrial customers (Applications suspended until 2019)
British Columbia	New Metering Program	Up to 100 kW	Residential and commercial customers
British Columbia	Micro – SOP	Over 100 kW – 1 MW	First Nations and communities (Applications suspended until 2019).
Ontario	Net Metering Program	500 kW or less	Residential and commercial customers
Quebec	Net Metering Program	Less than 50 kW	Residential, agricultural and small power business customers
Saskatchewan	Net Metering Program	Up to 100 kW	Residential, farms and commercial customers
Saskatchewan	Flare Gas Power Generation Program	100 kW – 1 MW	Small and medium sized oil producers
Nova Scotia	Development Tidal Feed-In-Tariff Program	Greater than 500 kW	Businesses who want to implement Large-scale in-stream tidal energy projects