

Ontario's FIT and MicroFIT Program Rooftop Solar

FIT and MicroFIT Programs

The Ontario government has recently started two feed-in-tariff programs. The programs pay owners of renewable electricity projects a premium price for electricity delivered to Ontario's electricity grid. The FIT program is for large generation projects and the MicroFIT program is aimed at smaller projects.

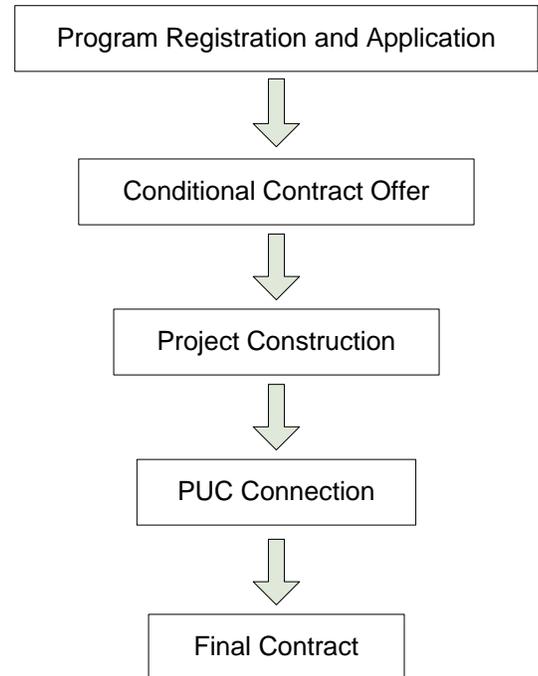
The objective of the government policy is to create new, distributed, renewable sources of electricity generation. The policy is particularly aimed at incenting small rooftop solar projects.

The program pays for electricity at different rates depending on the size and type of the project. Small rooftop solar projects are paid at the highest rate, 80.02 cents per kWh. The program offers a 20-year contract to purchase electricity at the guaranteed program price.

In addition to the registration, application, and contractual aspects of the program, there are other requirements such as building inspections and approvals, ESA permit, valid PUC connection, and domestic content requirements.

With such a substantial premium on electricity prices, and with foreseeable transmission capacity issues it is not likely that the program will continue for a significant time – current prices under program contracts are not likely to be available for long.

Key Program Steps



- Program is a short-term incentive to encourage renewable energy
- Rooftop solar projects are paid highest premium on electricity
- Program requirements include more than only construction and connection
- Balancing cost-effectiveness and performance is critical in a growing competitive market

Project Overview

Rooftop solar projects under the provincial FIT and MicroFIT programs are forms of distributed electricity generation – in other words they are small electricity plants. The projects are not connected to the electricity system of the building they are located on. They exist independent of the building's electrical system and do not change the building's electricity consumption.

There four main elements of the system: 1) solar panels, 2) mounting system, 3) DC/AC inverter, 4) metered connection to electricity grid.

With the rush to rooftop solar in Ontario, there are a variety of manufacturers to choose from when designing a project. There are a variety of types and sizes of solar panels, mounting systems, and inverters that will impact both project costs and revenues. Solar panels carry a 25 year warranty and balancing performance and cost-effectiveness is critical. As an example, mono-crystalline solar panels will yield more electricity but are likely more expensive than lower-yielding poly-crystalline panels.

Ontario's MicroFIT Program Rooftop Solar

Project Costs and Revenues

A typical 10kW rooftop solar project can cost around \$70,000 to supply and install plus any necessary expenses. Financing at a 5% interest rate over 10 years, yields a monthly payment of just under \$750.

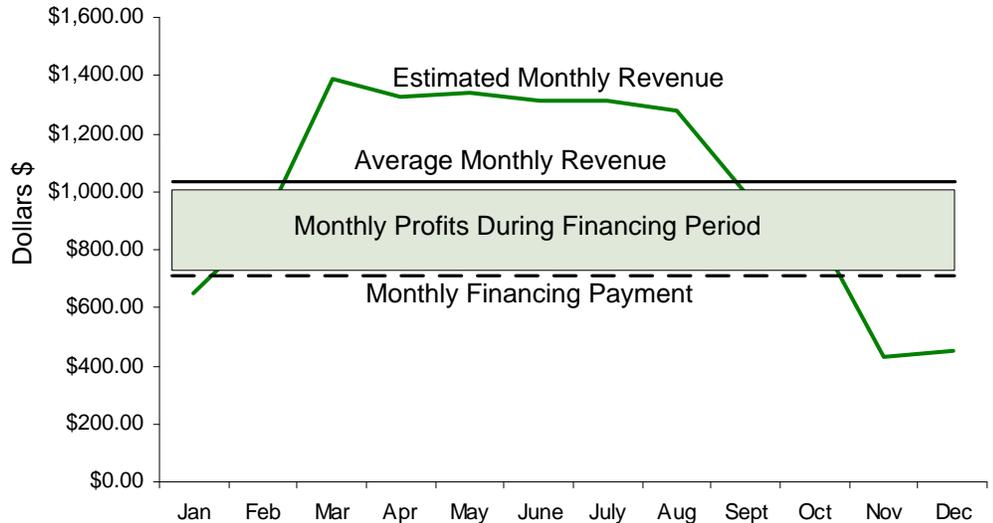
Using Natural Resources Canada estimates, the same project located in Sault Ste. Marie is estimated to generate about 15,000kWh of electricity per year at peak efficiency. This is an annual revenues of up to \$12,000 with an average monthly revenue of about \$1,000.

System costs are paid off in typically 6-10 years depending on total project cost and any costs from financing.

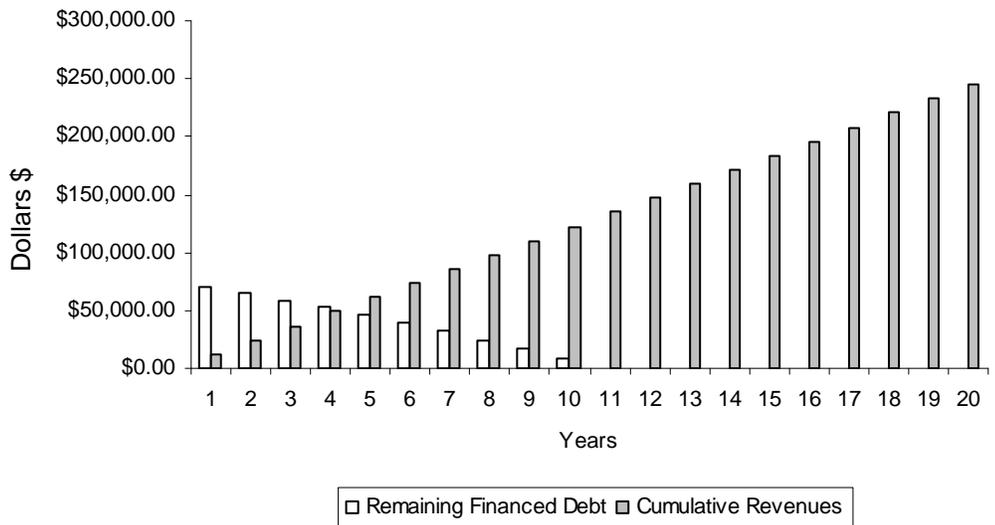
Return on investment over the life of the 20-year contract is upwards of 250% with the project revenues estimated at close to \$250,000 over the life of the contract.

- 20-year contract at guaranteed price
- Revenue will help offset rising Ontario electricity prices
- Sound investment with relatively short return on investment

Estimated 10kW Rooftop Solar Project Monthly Revenues



Estimated 10kW Rooftop Solar Project Annual Revenues



What Graystone Environmental Provides

Graystone Environmental provides clients with expert advice and trustworthy project management. Handling everything from application with the Province to final connection to the electricity grid, Graystone Environmental provide clients with turnkey renewable energy projects.

Financing is available where clients wish to pay for the system over the first years of the project.

Graystone Environmental helps clients ensure that they purchase type and size of equipment that is appropriate for their needs. Projects are installed using local, experienced, and reputable electrical contractors.