

ONTARIO POWER AUTHORITY

Date







FIT Program Overview

Ontario's Green Energy and Green Economy Act, 2009

- Recent legislation creates a new electricity paradigm for renewable energy:
 - Streamlined permitting and approvals process
 - Priority connection – “Right to Connect”
 - Fixed price contracts for power production
 - Ownership opportunities for private sector, municipalities, utilities, aboriginal and community groups

FIT Program Key Features

- Open to various renewable energy supply technologies
 - Bio-energy technologies 
 - Solar PV 
 - Waterpower 
 - Wind 
- Different prices for different technologies and project sizes
- Long-term contracts
- Prices that aim to cover total project costs and provide a reasonable rate of return over the contract term

Benefits of Ontario FIT Program

- Increase renewable energy supply to ensure adequate generation and reduce emissions
- Simpler and standardized method to procure and develop renewable energy supply
- Provide incentives for investment in renewable energy supply and associated technologies
- Opportunities for promoting community-based and Aboriginal projects
- Create new green industries through new investment and job creation

FIT and microFIT Program

- The FIT Program is divided into two streams – FIT and microFIT

FIT Program stream	microFIT Program stream
Small, medium and large renewable energy projects Generating over 10 kW of electricity.	Very small renewable projects such as home or a small business installations Generating 10 kW or less.

- The microFIT program is highly simplified and the contract issuance process is different from the FIT program

Draft FIT Price Schedule

Renewable Fuels	Capacity Range	Proposed Price (¢/kWh)
On Farm Biogas *	≤ 100 kW	19.5
On Farm Biogas *	> 100 kW ≤ 250 kW	18.5
Biogas *	≤ 500 kW	16.0
Biogas *	> 500kW ≤ 10 MW	14.7
Biogas *	> 10 MW	10.4
Biomass *	≤ 10 MW	13.8
Biomass *	> 10 MW	13.0
Landfill gas *	≤ 10 MW	11.1
Landfill gas *	> 10 MW	10.3
Rooftop or Ground Mounted Solar PV	≤ 10 kW	80.2
Rooftop Solar PV	> 10 kW ≤ 250 kW	71.3
Rooftop Solar PV	> 250 kW ≤ 500 kW	63.5
Rooftop Solar PV	> 500 kW	53.9
Ground Mounted Solar PV *	> 10 kW ≤ 10 MW	44.3
Waterpower *	≤ 10 MW	13.1**
Waterpower *	> 10 MW ≤ 50 MW	12.2**
Off-shore Wind *	Any size	19.0
On-shore Wind *	Any size	13.5

* Eligible for Aboriginal or Community Adder

** Contract term for water power extended to 40 years

FIT and Domestic Content

- Domestic Content
 - Wind projects: 25% on or before Dec 31, 2011 and 50% after
 - Solar PV projects: 50% on or before Dec 21, 2010 and 60% after
 - Solar PV microFIT: 40% on or before Dec 31, 2010 and 60% after
 - Domestic content requirements are FIT contract obligations

Support for Community and Aboriginal Projects

- FIT Program Price adder
 - Additional price incentive (cents/kWh) that increases with share of equity ownership by Community or Aboriginal group
- Aboriginal Energy Partnerships Program
 - community energy plans
 - feasibility studies
 - resource assessment
 - technical research
 - developing business cases
 - creation of an Aboriginal Renewable Energy Network.
- Aboriginal Loan Guarantee Program
- Community Energy Partnerships Program
- Municipal Renewable Energy Program

Overview of FIT Program

- Provisions for program launch
 - Connection capacity awarded based on project readiness
- Eligibility criteria
 - renewable energy projects located in Ontario
- Fees and securities
 - application fee
 - \$500 / MW of proposed contract capacity
 - application security
 - \$10,000 / MW for wind, waterpower, biomass
 - \$20,000 / MW for solar PV
 - \$5,000 / MW for >50% community-based or Aboriginal projects
 - first and second completion and performance securities
 - Required after contract is offered

My FIT Homepage

- Applicants create My FIT Homepage in order to:
 - create, save drafts and submit applications
 - receive messages and status updates from the OPA
- Tools available on the My FIT Homepage:
 - Ontario Transmission System Map
 - Transmission Availability Tables
 - Transmission Expansion Plans
 - LDC Locator

FIT Application

- Consultation with LDC/ transmitter
 - Applicant must meet with the applicable LDC/transmitter to discuss connection options and costs
- Required Application information and documents
 - Mandatory application materials (ex: site access)
 - Application fee
 - Application security
- Applicant completes and submits application on-line
 - Applicant submits application package by mail to OPA within 5 business days

Connection Assessment

- Once the OPA has reviewed application for completeness and eligibility, the OPA will assess whether connection capacity is available
- Projects that require grid expansions will move through the following steps, as necessary:
 1. Transmission Availability Test (TAT) / Distribution Availability Test (DAT)
 2. Economic Connection Test (ECT)
 3. FIT Production Line
 4. FIT Reserve
- Capacity allocation exempt projects
 - Proceed directly to contract

Connection Assessment

- **Transmission Availability Test**
 - The transmission availability test will be performed by the OPA to determine if there is sufficient connection availability on the transmission system to connect a project.
- **Distribution Availability Test**
 - The distribution availability test will be performed by the local distribution companies on projects that pass the transmission availability test and are connected to the distribution system.
 - It will to determine if there is sufficient connection availability on the distribution system to connect a project

Connection Assessment

- Economic Connection Test
 - The economic connection test determines whether the shared cost of the required grid upgrades fall within a reasonable threshold and can be included in grid expansion plans
- FIT Production Line
 - Required upgrades are proceeding and approvals are being requested, if necessary
 - Contract awarded when the expansions are expected to be ready by the time the project must reach COD
 - A portion of the Application Security is at risk
- FIT Reserve
 - No plans to go ahead with required upgrades at this time
 - Projects serve as inputs for future planning
 - Application Security is fully refundable

Contract milestones

1. **First Completion and Performance Security**
 - \$50,000/MW for solar PV
 - \$20,000/ MW for all other projects
 - \$5,000/MW for community-based or aboriginal projects with greater than 50% community or aboriginal participation levels.
2. **CIA/SIA**
3. **Notice to Proceed**
 - Completed Renewable Energy Approval
 - Provincial Content Plan (if applicable)
 - Completed CIA/SIA
 - Financing plan
4. **Second Completion and Performance Security**
 - \$25,000/MW for solar PV
 - \$10,000/ MW for all other projects
 - \$5,000/MW for community-based or aboriginal projects with greater than 50% community or aboriginal participation levels.
5. **Commercial Operation within 3 years (four for off-shore wind, five for water)**

MicroFIT Program

Participating in microFIT

- OPA expects that the microFIT Program will encourage the development of micro-generation installations
 - Mostly rooftop solar PV
 - Mostly residential, small commercial, institutional
- The program provides opportunities for a variety of business arrangements, for example:
 - Own your own project
 - Lease your roof
 - Lease project equipment
 - Community projects

microFIT Program Overview

1. OPA microFIT application
 - Applicant is assigned a reference Number for the project
2. Applicant submits a connection request to the LDC
 - Applicant must provide microFIT reference number
3. Applicant installs project and obtain necessary approvals
 - e.g. Electrical Safety Authority
4. Applicant and LDC complete connection of project
 - Sign Connection Agreement, pay connection costs, install meter
5. LDC informs OPA of connection details
 - Use of web-based interface
6. OPA prepares and offers microFIT Contract
 - Electronic contracting
7. OPA informs LDC to start settlement

Contact Us

microFIT and FIT: fit.powerauthority.on.ca/

Email: FIT@powerauthority.on.ca