



ONTARIO POWER AUTHORITY

October 24, 2009



# FIT Program Overview





# Ontario's Green Energy and Green Economy Act, 2009

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- 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

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- 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

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- 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

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- 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

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- 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

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- 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

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- 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

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- 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

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- 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

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- 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

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- 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

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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)

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# MicroFIT Program

# Participating in microFIT

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- 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

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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

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