

ONTARIO POWER AUTHORITY

August 31, 2009



Draft microFIT Rules and Draft microFIT Contract

Presentation Overview

- Key features of the microFIT program
- microFIT program eligibility
- Draft microFIT Rules
- microFIT program Pricing & payment
- Draft microFIT Contract
- Summary of feedback received

FIT vs. microFIT

FIT Program	microFIT Program
<p>Small, medium and large renewable energy projects</p> <p>Typically, generating over 10 kW of electricity</p> <p>Refer to FIT Rules</p>	<p>Very small renewable projects such as home or a small business installations</p> <p>Restricted to projects generating 10 kW or less</p> <p>Refer to microFIT Rules</p>

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

microFIT Program Key Features

- Designed for projects 10 kW or less
 - All renewable fuels permitted in the FIT program are permitted in the microFIT program.
- OPA expects that the microFIT Program will encourage the development of micro-generation installations
 - Mostly rooftop solar PV
 - Mostly residential, small commercial, institutional
- Streamlined process for micro-generators
 - The approach is aligned closely with the existing connection and settlement functions of the LDCs and the OEB's Distribution System Code

microFIT Program Key Features

- The program allows for a variety of participation opportunities, for example,
 - a proponent can develop and install a project on their own property
 - a proponent will be able to lease the property of others to install their own microFIT project
- The program is open to every sector, for example,
 - Residential
 - Farms
 - Commercial
 - Schools

microFIT Program Overview

1. An application for a microFIT contract is submitted to the OPA
 - Applications will be submitted using an online form
 - The project will be given a Reference Number
2. The applicant submits a Connection Request to the LDC
 - They must provide Reference Number
3. The applicant installs the project and obtains necessary approvals
 - e.g. Electrical Safety Authority, Renewable Energy Approval, building permits, as applicable

microFIT Program Overview (cont.)

4. The applicant and the LDC complete the connection of the project to the distribution system
 - Sign Connection Agreement, pay connection costs, install meter

5. LDC will inform OPA of connection details
 - e.g. date of Connection Request, Connection Date

6. OPA prepares and offers microFIT Contract
 - Electronic contracting

microFIT Development Cost Considerations

- The OPA will not have an application fee for participants in the microFIT Program
- Costs that should be considered by any person interested in obtaining a microFIT contract include:
 - Equipment and installation
 - Inspection by the Electrical Safety Authority
 - Permitting and other approvals
 - LDC connection costs
 - LDC account charges and metering fees
 - Legal and insurance costs
 - Tax and accounting costs

microFIT Program Eligibility

microFIT Basic Eligibility Requirements

- An eligible project must :
 - be a renewable generation facility
 - be located in the Province of Ontario
 - not already be an OPA-contracted facility
 - not have a nameplate capacity greater than 10 kW being supplied through a single connection point
 - for an Incremental Project, the sum of the nameplate capacity of the existing generating facility and the microFIT Project must not be greater than 10 kW through a single Connection Point
 - be connected directly or indirectly to the IESO-controlled grid via a distribution system
 - have separate metering suitable for data collection and settlement purposes

microFIT Basic Eligibility Requirements (cont.)

- The microFIT contract holder (“Supplier”), must be the same person or entity as the LDC customer account holder that is associated with the generation meter and the LDC Connection Agreement
- Additional requirements for ‘incremental projects’:
 - Supplier must be the owner/operator of the existing facility
 - The project must use the same renewable fuel as the existing facility
 - The project must use the existing facility’s connection to a distribution system

microFIT Basic Eligibility Requirements (cont.)

- If a project is determined by the LDC to require a Connection Impact Assessment, then the project will not be eligible for a microFIT Contract, and must apply through the FIT Program
 - For example, this may occur if there is a micro-scale wind project and a micro-scale solar PV project with combined capacity greater than 10 kW located at one point of connection
- Although it is not an eligibility requirement for the purposes of an application, applicants should be aware that, based on applicable direction from the Ministry of Energy and Infrastructure, microFIT Projects must comply with Provincial Content Requirements

microFIT Basic Eligibility Requirements (cont.)

- Although it is not an eligibility requirement for the purposes of an application, applicants should be aware that they may be required to obtain a Renewable Energy Approval
 - For example, wind power projects greater than 3 kW will be required to obtain a Renewable Energy Approval
- Net-metered projects are not excluded from the microFIT program, however, they will have to meet all eligibility requirements (which may include Provincial Content Requirements)

Draft microFIT Rules

microFIT Application – Online Form

- The Applicant information will include:
 - Name and contact information
 - Type of Applicant (e.g. homeowner, commercial, institution)
 - GST number (if applicable)
 - Name of LDC and account number to be associate with the generation meter (if available)
 - Location of the microFIT project
 - Capacity of microFIT project (kW)
 - Type of renewable fuel
 - Net-metered? Battery back-up? Incremental?
 - Estimated date to submit a Connection Request to LDC

Connection Request

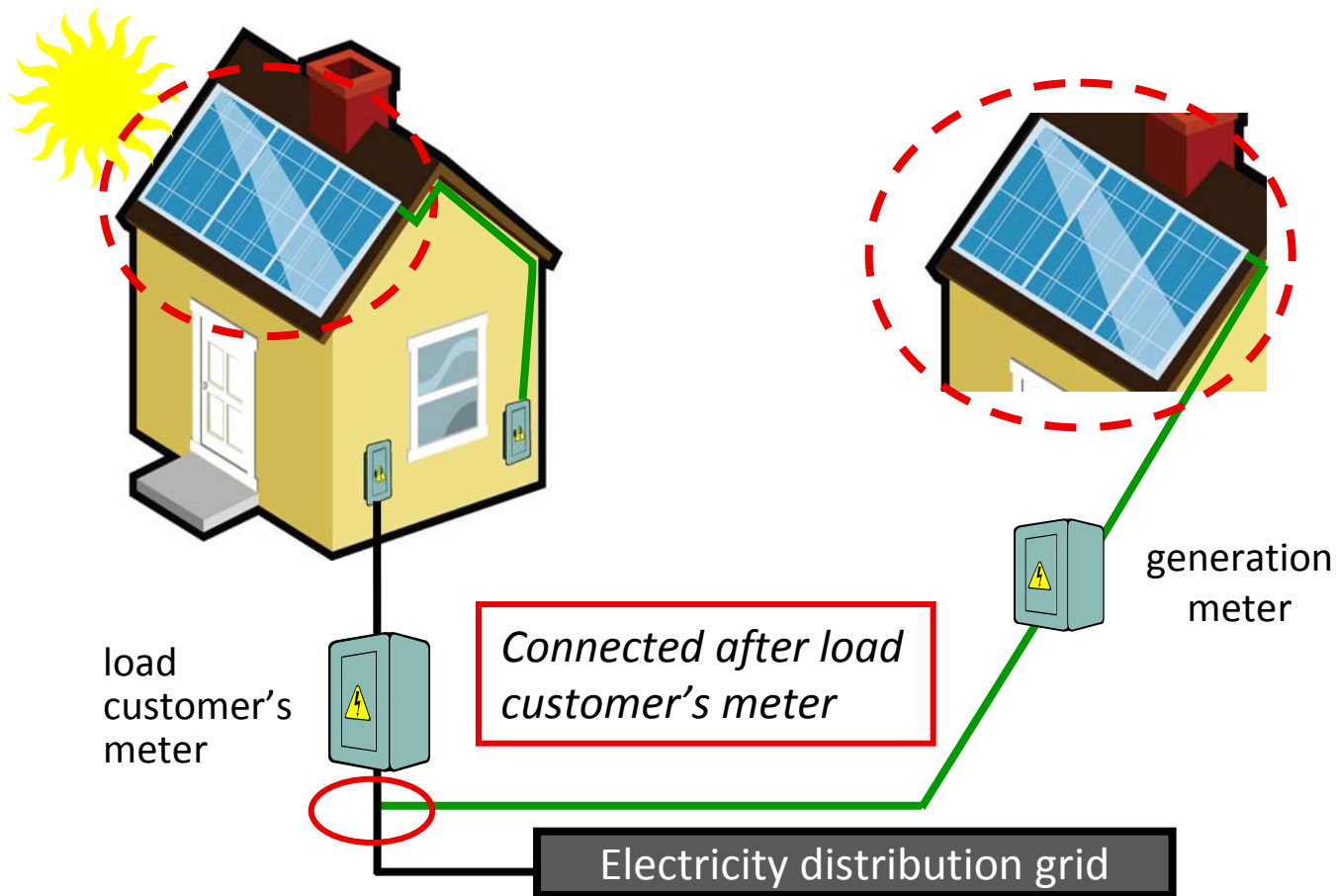
- A Connection Request is an application to the LDC for the connection of the microFIT project to the distribution system
- The Connection Request should be a formal request that makes use of existing forms and documents provided by the LDC
- Applicants must provide the LDC with their microFIT project Reference Number when submitting a Connection Request

Connection Request (cont.)

- Applicants will be asked to wait 30 days after their application is submitted before submitting a Connection Request to the LDC
 - Allows the OPA time to screen applications (e.g. for existing contracts)
 - Allows time for the LDC to prepare for the connection
- The date that a Connection Request is submitted to the LDC is an important date
 - The OPA will use this information to determine the applicable contract price

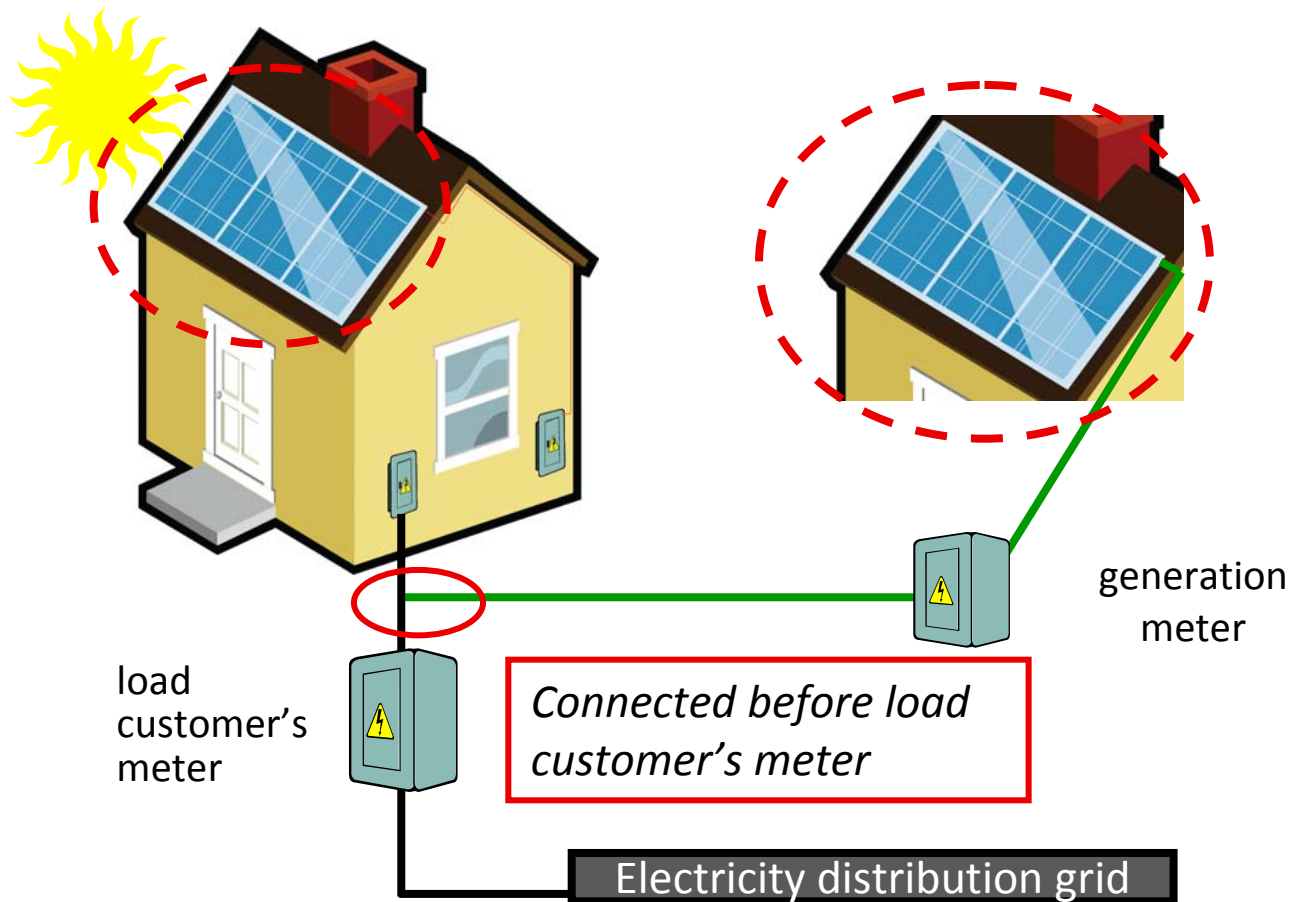
Connection and metering

- Directly Connected microFIT Projects
 - Independent of the load customer
 - Parallel configuration



Connection and metering (cont.)

- Load Embedded microFIT Projects
 - Connected through a load customer ('indirect')
 - Series configuration



Connection and metering (cont.)

- [If the Supplier is a different legal entity than the Load Customer, the microFIT Project must be Directly Connected]
 - This requirement may be reconsidered given the proposed amendments to the OEB's codes.
- Projects that are Directly Connected cannot be connected to a battery backup system
- Any meter associated with the microFIT Project, including the load meter in the case of Load Embedded projects, must be owned by the LDC

Connection Date

- The Connection Date is the date that the project is physically connected to the LDC's distribution system (directly or indirectly) with suitable metering configurations appropriate for microFIT settlement
- Consistent with the OEB Distribution System Code, the LDC will connect the project after receiving:
 - the authorization to connect from the Electrical Safety Authority
 - a signed Connection Agreement
 - i.e. the 'Micro-Embedded Generation Facility Connection Agreement' prescribed by the OEB
 - payment for connection costs

Contract Form and Execution

- After the microFIT Project has been connected the LDC will provide the OPA with certain information about the microFIT project
 - This is to ensure that the information used to create the contract is accurate
- The OPA will prepare the contract based on the information provided by the LDC
- The OPA will issue a notice to the applicant (via email) that a contract has been offered to them
 - The applicant must then accept the contract offer to execute the contract

Contract Form and Execution (cont.)

- Information collected or confirmed by the LDC will include:
 - Reference number
 - Name and billing address (as written on LDC account and Connection Agreement)
 - Location of the microFIT Project
 - Capacity of the microFIT Project (kW)
 - Type of renewable fuel
 - Connection point and configuration
 - Date of Connection Request
 - Connection Date
 - Settlement period information

Contract Form and Execution (cont.)

- The OPA will set the Contract Price based on the date of the Connection Request, the Connection Date and the FIT Price Schedule.
- microFIT Contracts will be executed using electronic “click” contracting
- Contract Payments will not be issued until the proponent accepts and enters into the microFIT Contract.
 - OPA will notify LDCs when contracts have been executed and when contract payments can begin

Contract Term – Effective Date

- For new projects the microFIT Contract will commence on:
 - The Connection Date, if the Supplier accepts the contract within 15 business days of the offer notice, or
 - If the Supplier does not accept the contract within 15 business days of the offer notice, the later of
 - The Connection Date
 - The first day of the LDC settlement period in which the contract was accepted
- If a project has converted from a net-metered project, the microFIT Contract will commence on the first day of the LDC settlement period in which the contract was accepted

Contract Term – End Date

- The Supplier will be eligible for generation payments for the length of the contract term
- The length of the contract term will be consistent with FIT Price Schedule. For example,
 - **Bio-energy Solar, Wind, → 20 years**
 - **Waterpower → 40 years**

Contract Management

- ***What if you move?*** - Assignments
 - The Supplier may assign its rights and obligations under the microFIT Contract to a new proponent with the consent of the OPA
- Contract Termination
 - The Supplier must provide the OPA 30 days notice of their intent to terminate the microFIT Contract
 - The microFIT Contract will terminate automatically with the termination of the Connection Agreement
 - The OPA may terminate the microFIT Contract for breach by the Supplier
- Monitoring and Auditing
 - The OPA will be responsible for ongoing monitoring and auditing of microFIT Projects

microFIT Program Pricing & Payment

Contract Price

- Dates that will determine the Contract Price
 - Date of Connection Request
 - Connection Date
- If projects are connected within 12-months of submitting a Connection Request, the price will correspond to the FIT Price Schedule at the time of the **Connection Request**
- If projects are **not** connected within 12-months of submitting a Connection Request, the price will correspond to the FIT Price Schedule at the time of the **Connection Date**

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
Ground Mounted Solar PV *	> 10 kW ≤ 10 MW	44.3
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
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

Prices relevant to the microFIT program

Renewable Technology	Price	Contract Term	Escalation Percentage
Solar PV	80.2 ¢/kWh	20 years	0%
Wind	13.5 ¢/kWh	20 years	20%
Waterpower	13.1 ¢/kWh	40 years	20%
Biomass	13.8 ¢/kWh	20 years	20%
Biogas	16.0 ¢/kWh	20 years	20%
Landfill gas	11.1 ¢/kWh	20 years	20%

- The prices are based on the Draft FIT Price Schedule
- The price for some technologies will escalate annually based on increases in the consumer price index
- If you intend to apply for the on-farm biogas price, the community price adder, or the aboriginal price adder, then you must apply through the broader FIT Program
- Waterpower projects and bio-energy projects under the microFIT program will not receive on/off peak pricing

Generation Payments

- LDCs will complete financial settlement with the Supplier for electricity produced by the microFIT Project
 - in accordance with the Retail Settlement Code, the Connection Agreement and the microFIT Contract
 - consistent with the established meter reading and settlement periods
- Payment calculation methodology is pending OEB code amendments
 - Proposed amendment for ‘gross load billing’
Payment = Price x kWh (regardless of connection configuration)

Generation Payments: Incremental Projects

- Settlement for Incremental Projects
 - Incremental projects are expansions of existing facilities
 - Must share connection and metering with existing facility
- Only increase in capacity is eligible for a microFIT Contract
- Settlement is based on Incremental Project Ratio

$$= \frac{\text{increase in capacity}}{\text{total facility capacity}}$$

Draft microFIT Contract

Draft microFIT Contract

- The microFIT contract is intended to be a simpler form of contract compared to the FIT program contract
- The draft microFIT contract posted August 14 is for a directly connected microFIT project
 - OPA is currently reviewing the need of a ‘load embedded contract’
 - OPA is presently drafting a form of microFIT contract for ‘incremental projects’
- The draft microFIT contract requires that the Supplier has entered into a Connection Agreement with the LDC with respect to the microFIT project

Draft microFIT Contract (cont.)

- The contract includes:
 - a description of the generating facility
 - name on LDC account and account number
 - connection date and the effective date of the contract
 - contract price and applicable escalation percentage
 - GST information
 - treatment of environmental attributes
 - metering characteristics and configuration requirements
 - other general conditions (statements, data, inspections)

Summary of feedback received

Stakeholder feedback

Topics of comments and questions include:

- Definition of nameplate rating
- Timing of contract award
- Renewable Energy Approvals
- Provincial Content Requirements
- Tax treatment
- Lender protection
- RESOP to microFIT
- 30-day waiting period (Connection Request)
- Treatment of multiple projects at one location
- 12-month timeline to get connected
- Same name on LDC account

Additional feedback welcomed

- Comments and suggestions are encouraged – please submit through the online **Make a Submission** tool
- If you have questions about the microFIT program design, rules or contract – please submit questions using the **Online Q&A** tool

<http://www.powerauthority.on.ca/fit>

Thank you for your
participation.

Questions?