



FEED-IN TARIFF PROGRAM

PROGRAM OVERVIEW *Version 1.1*

September 30, 2009

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This Program Overview is a high-level synopsis of the FIT Program (the "Program"), and is provided only to assist you by giving you a general indication of the Program. Please note that this Program Overview does not contain the full details of the Program, and is not binding on the OPA.

Further, the OPA may change, modify, amend or update the Program at any time and without notice. While the OPA will endeavour to keep the Program Overview current, the OPA cannot guarantee its accuracy or completeness.

Please refer to the FIT Contract and FIT Rules for the most up-to-date and binding terms and conditions.

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INTRODUCTION

I. Background

The Feed-in Tariff (FIT) Program was enabled by the *Green Energy and Green Economy Act, 2009*. The Ontario Power Authority (OPA) is responsible for implementing the FIT Program.

Ontario's FIT Program is North America's first comprehensive guaranteed pricing structure for renewable electricity production. The program provides a way to contract for renewable energy generation. It includes standardized program rules, prices and contracts for anyone interested in developing a qualifying renewable energy project. Prices are designed to cover project costs and allow for a reasonable return on investment over the contract term.

Qualifying renewable fuel sources include:

- bioenergy
 1. biogas
 2. biomass
 3. landfill gas
- solar photovoltaic (PV)
- waterpower
- wind

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

FIT Program	microFIT Program
Small, medium and large renewable energy projects. Generating more than 10 kilowatts (kW) of electricity Refer to FIT Rules	Very small renewable power projects, such as a home or small business installation. Generating 10 kilowatts (kW) or less of electricity Refer to microFIT Rules

The microFIT Program offers a simplified application and contract issuance process as compared to the FIT program. If you are interested in developing a small renewable energy project of 10 kW or less, please visit the microFIT Program website at microfit.powerauthority.on.ca.

Applicants to the FIT Program should review these four documents before starting an application:

1. FIT Rules
2. price schedule
3. standard definitions
4. contract.

Renewable Energy Facilitation Office

Depending on its size, type, and location, your renewable energy project may be subject to regulatory approval(s), for example, through the Ministry of Environment and/or the Ministry of Natural Resources. The Renewable Energy Facilitation Office (REFO) can help you navigate through this process by:

- providing access to information
- connecting you with the right resources at the appropriate ministries, agencies and governments
- setting up a coordinated scoping meeting to discuss your project's requirements.

For more information, please visit the REFO at www.ontario.ca/renewableenergyprojects.

II. Purpose of the FIT Program overview

The FIT Program overview is intended to provide:

- potential renewable project proponents with a simplified version of the FIT Rules
- guidelines for developing a renewable energy project under the FIT Program
- guidance to FIT applicants in preparing for the FIT application process.

The registration instructions will help guide you through the registration process. The application instructions will help guide you through the processes for completing and submitting an application form.

III. Other considerations

This document also provides an overview of the scope of the requirements for developing a renewable energy project under the FIT Program. It is not intended to provide a complete listing of all the requirements. You are responsible for ensuring the technical, regulatory and financial viability of your project BEFORE beginning the FIT Program application process.

Before applying for a FIT contract, you should investigate all of the requirements for owning and operating a renewable generating facility, including determining a business structure, obtaining financing, securing connection capacity, assessing business income and property tax impacts and tracking costs and revenues. Consulting with experienced professionals prior to making a significant investment is strongly advised.

SECTION 1: REVIEW OF FIT PROGRAM





1.1 FIT Rules

a. Eligibility requirements

What projects are eligible to apply for a FIT contract?

The FIT Program is open to a variety of generators, project sizes and renewable fuel types. The principal requirements are that your project be located in Ontario and be fueled by a renewable fuel source.

Qualifying renewable fuel sources include:

	Solar PV	<ul style="list-style-type: none">• ground-mounted• rooftop
	Wind	<ul style="list-style-type: none">• on-shore• off-shore
	Water	<ul style="list-style-type: none">• naturally flowing water
	Bioenergy	<ul style="list-style-type: none">• biogas (on- and off-farm)• biomass• landfill gas

The FIT Program is designed for projects over 10 kW. Projects 10 kW or less should apply to the microFIT Program.

Waterpower projects must not be greater than 50 MW per project and solar PV projects must not be greater than 10 MW per project.

Incremental projects (additions to existing facilities) are eligible, provided they use the same meter as the existing facility. However, only the generation attributed to the incremental project will be eligible for FIT Program payments. To qualify as an incremental project, you must meet these three additional eligibility requirements:

1. you must be the owner of the existing renewable energy project
2. the incremental project must use the same technology as the existing renewable energy project
3. the incremental project must use the existing renewable energy project's connection and metering.

Agricultural land restrictions

There are seven classes to rate agricultural land capability in Canada. Class 1 lands have the highest capability and Class 7 lands the lowest capability to support agricultural land-use activities.

Ground-mounted solar PV projects greater than 100 kW must not be located on:

- Canada Land Inventory Class 1 Lands for agriculture
- Canada Land Inventory Class 2 Lands for agriculture or specialty crop areas.

Projects located on Canada Land Inventory Class 3 Lands for agriculture can only be located on lands designated on the FIT Program website as Class 3 Available Lands.

Sections 2 and 3 of the FIT Rules contain the full details of the eligibility requirements. Please review them closely to ensure that your project is eligible to apply.

b. Domestic content requirements

The FIT contract requires wind projects greater than 10 kilowatts and all solar projects to include a minimum amount of goods and services that come from Ontario.

The minimum required amount of Ontario-based content will increase over time and is determined by the year that your project reaches commercial operation. The minimum requirements are:

Wind projects over 10 kW		Solar projects over 10 kW	
Minimum domestic content level	Year of commercial operation	Minimum domestic content level	Year of commercial operation
25 percent	2009 to 2011	50 percent	2009 to 2010
50 percent	2012 and later	60 percent	2011 and later

Solar projects 10 kW or less should refer to the microFIT Program website for details on the domestic requirements for these projects at microFIT.powerauthority.on.ca.

The FIT contract (Exhibit D) sets out a number of tables describing the designated domestic content activities for each technology.

Domestic content plan

When applying for a FIT contract, you do not have to know which specific designated activities will count towards meeting your domestic content requirements. However, when making a notice to proceed request, you will have to submit a domestic content plan, in the prescribed form, that outlines how you expect to meet the domestic content requirements.

Domestic content report

Within 30 days after achieving commercial operation, you are required to submit a report outlining how your project has actually achieved the required domestic content level.

c. Capacity allocation-exempt projects

Capacity allocation-exempt projects are small projects connected to the distribution system. The Ontario Energy Board’s Distribution System Code defines these projects as:

1.	A generator less than or equal to 250 kW where the facility is connected to a line less than 15 kilovolts (kV).
2.	A generator less than or equal to 500 kW where the facility is connected to a line greater than or equal to 15 kilovolts (kV).

The FIT Rules include provisions to ensure that capacity allocation-exempt projects have a streamlined application and contracting process.

For example, capacity allocation-exempt projects:

- are not required to submit application security; however, completion and performance security are required
- proceed directly to a FIT contract after the application has been reviewed and is found to be complete. They are not subject to the transmission and distribution availability tests, the economic connection test, the FIT production line or the FIT reserve
- are not subject to program launch rules or commercial operation date acceleration days. These projects must meet the normal commercial operation deadlines of three years for solar, on-shore wind and bioenergy, four years for off-shore wind and five years for water
- must specify their connection point upon application so that they can proceed directly to contract.

Grid upgrades may be required to connect these projects to the distribution system. The projects will be required to obtain a connection impact assessment and cover all attributed connection costs.

d. Aboriginal and community-based projects

The FIT Program contains two provisions designed to encourage the development of Aboriginal and community-based projects:

- reduced security payments
- an additional price incentive called a “price adder”.

Why do Aboriginal and community projects receive additional incentives?

Aboriginal and community-based projects receive incentives to participate because these projects face barriers and higher project costs not encountered by commercial developers.

The additional incentives are available to:

- help ensure these projects are economically viable
- level the playing field for groups that may otherwise be excluded from developing renewable energy projects.

Why are the FIT Program incentives structured this way?

The incentives are structured to encourage local partnerships and to help Aboriginal and community partners maximize their equity share.

Reduced security payments

Three security payments are required under the FIT Program (see further in section 6 of this document):

1. at the time of application
2. at the time of contract issuance
3. before commercial operation.

For projects controlled by an Aboriginal group or a community (i.e., with a greater than 50 percent participation level), security payments are reduced to \$5 per kW, regardless of the type of renewable energy the project uses.

Projects that have less than a 50 percent participation level are not eligible for reduced security payments. They are eligible for additional price incentives.

Additional price incentives

The FIT price schedule includes provisions for projects that have different levels of equity ownership by Aboriginal or community proponents. This means that, depending on the level of equity ownership, these projects will receive a price adder in addition to the FIT contract price.

The following table shows the maximum level of the Aboriginal and community price adders a project could receive in addition to the contract price.

	Wind	Solar PV (ground-mounted) ¹	Water power	Biogas	Biomass	Landfill Gas
Maximum Aboriginal price adder (cents/kWh)	1.5	1.5	0.9	0.6	0.6	0.6
Maximum community price adder (cents/kWh)	1.0	1.0	0.6	0.4	0.4	0.4

Aboriginal or community projects are eligible for a price adder in proportion to the percentage of equity ownership of the Aboriginal or community group, as set out in the following table:

Percentage of control	Percentage of corresponding price adder
50 to 100	100
40 to 49	80
25 to 39	50
10 to 24 ²	20

Example

A 10 MW wind project with an Aboriginal participation level greater than 50 percent would be eligible to receive the FIT contract price of 13.5 cents/kWh **plus** an additional 1.5 cents/kWh. This means that the total contract price would be 15 cents/kWh for this project.

¹ Rooftop solar PV projects are not eligible for a price adder.

² 10 percent is the minimum participation level required to receive any price adder.

Section 9 of the FIT Rules contains the provisions for Aboriginal and community projects.

Aboriginal Community means, for the purposes of the FIT Program:

1. a First Nation that is a “Band” as defined in the *Indian Act (Canada)*
2. the Métis Nation of Ontario or any of its active Chartered Community Councils
3. a person, other than a natural person, that is determined by the Government of Ontario for the purposes of FIT Program to represent the collective interests of a community that is composed of Métis or other Aboriginal individuals, or
4. a corporation that is wholly owned by one or more Aboriginal communities as described in (1), (2) or (3).

Community means, for the purpose of the FIT Program:

1. one or more individuals resident in Ontario
2. a registered charity with its head office in Ontario
3. a not-for-profit organization with its head office in Ontario, or
4. a “co-operative corporation”, as defined in the *Co-operative Corporations Act (Ontario)*, all of whose members are resident in Ontario.

e. Confidentiality

Prospective applicants to the FIT Program should be aware that the information they provide to the OPA is subject to the *Freedom of Information and Protection of Privacy Act (Ontario)* (FIPPA), and may become generally available to the public. Information that a FIT Program applicant considers to be commercially sensitive or otherwise confidential should be clearly marked as such, but may nevertheless be subject to FIPPA.

f. Program review

The OPA intends to review and amend as necessary the FIT Program, FIT Rules, FIT contract and price schedule at regular two-year intervals. The first review is scheduled to take place two years after the FIT Program launch. Changes to the program will not affect any executed FIT contracts.

g. Program launch rules

During the period immediately after the official launch of the FIT Program until 11:59 p.m. Toronto time on November 30, 2009, connection capacity will be allocated according to a different set of rules. The program launch rules are designed to allow projects that have already reached certain development milestones to be eligible for priority access to available connection capacity.

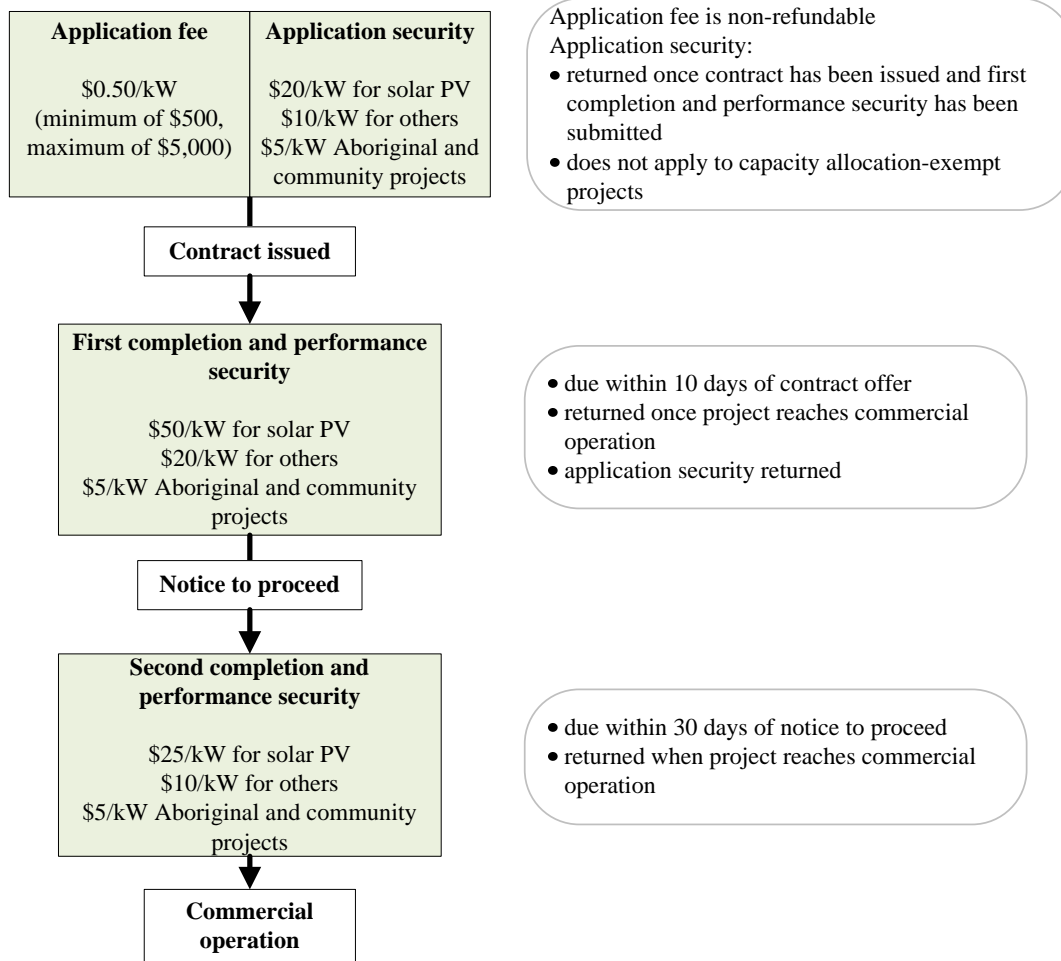
At the end of the program launch period, applications to the FIT Program will be prioritized according to their estimated date of commercial operation, with the earliest estimated commercial operation dates getting top priority for connection capacity.

The program launch rules do not apply to projects that are defined as capacity allocation-exempt. These projects proceed directly to contract.

Section 13 of the FIT Rules sets out the provisions for the program launch.

1.2 Fees and securities

Several payments are due to the OPA at various stages of the application and contracting processes. The diagram below summarizes the fees and security payments. You should review these requirements in the FIT Rules and contract before participating in the FIT Program.



The security payments must be in one of the following forms:

- certified cheque
- bank draft
- irrevocable and unconditional standby letter of credit issued by a financial institution listed in either Schedule I or II of the *Bank Act (Canada)*, or other financial institution with a minimum credit rating of one of the following:
 - (i) A- with S&P
 - (ii) A3 with Moody's
 - (iii) A low with DBRS
 - (iv) A with Fitch IBCA.

The application security letter of credit form is provided in Exhibit A of the FIT Rules.

1.3 Price schedule

Feed-In Tariff Prices for Renewable Energy Projects in Ontario Base date: September 24, 2009			
Renewable fuel	Size tranches	Contract price ¢/kWh	Escalation percentage ⁴
Biomass^{1,2}			
	≤ 10 MW	13.8	20%
	> 10 MW	13.0	20%
Biogas^{1,2}			
On-farm	≤ 100 kW	19.5	20%
On-farm	> 100 kW ≤ 250 kW	18.5	20%
Biogas	≤ 500 kW	16.0	20%
Biogas	>500 kW ≤ 10 MW	14.7	20%
Biogas	> 10 MW	10.4	20%
Waterpower^{1,2,3}			
	≤ 10 MW	13.1	20%
	> 10 MW ≤ 50 MW	12.2	20%
Landfill gas^{1,2}			
	≤ 10 MW	11.1	20%
	> 10 MW	10.3	20%
Solar PV			
Any type	≤10 kW	80.2	0%
Rooftop	> 10 ≤ 250 kW	71.3	0%
Rooftop	> 250 ≤ 500 kW	63.5	0%
Rooftop	> 500 kW	53.9	0%
Ground-mounted ²	> 10 kW ≤ 10 MW	44.3	0%
Wind²			
On-shore	Any size	13.5	20%
Off-shore	Any size	19.0	20%

¹ Peak performance factor applies.

² Aboriginal price adder and community price adder eligible as outlined in the posted FIT price schedule.

³ In the case of an incremental waterpower project, the incremental project, together with the existing generating facility to which it is incremental, cannot exceed 50 MW. In the case of an incremental solar project, the incremental project, together with the existing generating facility to which it is incremental, cannot exceed 10 MW.

⁴ The escalation percentage will be applied to eligible renewable fuels as calculated in Exhibit B of the FIT contract.

1.4 Contract and settlement

The FIT contract is entered into between the OPA and the project proponent. It requires the OPA to pay the contract-holder for the electricity produced by the project. The contract sets out project-specific information, milestones to reach commercial operation and the contract holder's rights and obligations. Some of these rights and obligations are described below.

- The contract term runs for a period of 20 years (the term is 40 years for waterpower projects).
- The contract describes the project including its location, renewable fuel type, size of the contract facility, and the principals involved. It also establishes the project capacity.
- From the time the contract is executed, commercial operation must be reached within:
 - three years for on-shore wind, bioenergy and solar projects
 - four years for off-shore wind projects
 - five years for waterpower projects.
- The OPA will own all related products generated from the project, such as any environmental attributes or carbon credits.
- The OPA will pay for the electricity the project delivers to the electricity system, but will not penalize the contract holder for not generating electricity. However, the OPA may terminate a contract if a project does not generate electricity for two consecutive years.
- The contract holder is responsible for complying with all applicable laws, regulations, licences and permits.
- The contract may be terminated if information in the FIT Program application is found at any time to be inaccurate in a material respect.
- For projects that are connected to the distribution system, the local distribution company will make payments to the generator on a regular basis according to the normal billing cycle of the local distribution company.
- Projects connected directly to the high-voltage transmission system are settled directly by the OPA and the Independent Electricity System Operator. Once a project is built and in-service, payments will be made on a regular basis, usually monthly.

SECTION 2: MY FIT HOME PAGE

To apply for a FIT contract, you will be required to register for the FIT Program on the OPA's FIT Program website. When you register, a unique web page will be created that will only be accessible by username and password.

Your "My FIT home page" will provide you with the necessary tools and features for participating in the FIT Program. These include completing an application form and tracking the status of your application and related communications you receive from the FIT Program team.

The following online tools and features are available:

- your registration ID
- your My FIT messages
- create a new application
- FIT applications in progress or completed
- FIT program resources
- FIT-related documents.

2.1 Registration instructions

Please refer to the registration instructions document available on the FIT Program website for more information on how to register, log in and use the My FIT home page.

2.2 Connection availability resources

To provide prospective FIT applicants with information about the transmission system, status of FIT project applications and related transmission projects, the OPA has developed several tools that can be accessed on the FIT website and/or your My FIT home page:

1. local distribution company locator
2. Ontario transmission system map
3. transmission availability tables
4. transmission system planning.

The Ontario transmission system map and the transmission availability tables are available to registered users only. Please refer to the registration instructions for more information about these tools.

SECTION 3: CONNECTION INFORMATION

Before beginning the application process, you must contact the local electricity distribution company (and/or transmitter) in the location of your project to determine whether a connection (including metering configuration and requirements) can be made from your site to the system. During your discussion, you should also review the potential connection costs for which you will be responsible.

How do I know if I should connect to the distribution or transmission system?

- Projects of 10 MW and less typically connect to the distribution system. You can use the OPA's local distribution company locator tool to find the applicable local distribution company.
- Projects greater than 10 MW typically connect to the transmission system. To find the transmitter that owns or operates the assets to which you propose to connect your renewable energy project, you can refer to the Ontario Energy Board's listing of licensed transmission companies at www.oeb.gov.on.ca.

3.1 Consultation with your local distribution company or transmitter

There are several questions on the FIT Program application form about the connection of your project to the transmission or distribution system.

To complete this section of the form, you should meet with your local distribution company or transmitter to discuss:

- the current distribution system capacity
- existing plans to expand the distribution system
- connection options and costs for your project.

There are certain circumstances under which you might choose not to specify connection details. Please refer to sections 3.2(b) and 3.3(a) below for details.

Capacity allocation-exempt facilities or behind-the-meter facilities are required to submit a proposed connection point.

Please note that you must not have an existing connection impact assessment, system impact assessment or customer impact assessment when you apply to the FIT Program. You must rescind any impact assessment that you have before applying to the program.

3.2 Connecting to the distribution system

When expansions to the distribution system are required to connect your project, some of these system upgrades may be needed solely to connect your project while others will benefit the whole system. In general, all new construction needed to connect your project to the existing grid will be your cost responsibility. The costs are shared between the local distribution company and you for upgrades that benefit your project and the existing system.

The Ontario Energy Board is responsible for setting the rules for cost allocation between the generator and local distribution company. The rules are set out in the Distribution System Code and the Transmission System Code. Please refer to the Ontario Energy Board’s website for full details at www.oeb.gov.on.ca.

There are three types of distribution upgrades. Each has a different cost-sharing arrangement between the local distribution company and generator as summarized below:

Type of upgrade	Description <i>Excerpted from the Ontario Energy Board’s Distribution System Code</i>	Cost responsibility
Connection assets	“that portion of the distribution system used to connect a customer to the existing main distribution system, and consists of assets between the point of connection on a distributor’s main distribution system and the ownership demarcation point with the customer”	Generator responsible
Expansions	“an addition to a distribution system in response to a request for additional customer connections that otherwise could not be made; for example, by increasing the length of the distribution system”	Distributor and generator share costs
Renewable enabling improvements	“a modification or addition to the main distribution system identified in section 3.3.2 that is made to enable the main distribution system to accommodate generation from renewable energy generation facilities”	Distributor responsible

a. Expansions

When a specific generator triggers a distribution expansion, the connection costs will be shared between the distributor and the generator as follows:

- expansion costs up to and including \$90/kW will be allocated to the distributor
- expansion costs above \$90/kW will be allocated to the generator.

Please discuss these provisions with your local distribution company. Refer to the Ontario Energy Board's Distribution System Code for full details, including definitions for connection assets, expansions, and renewable enabling improvements, at www.oeb.gov.on.ca.

b. Local distribution company expansion plans

If your project requires significant connection assets and distribution system expansions to connect – for example, because your project is located far from the existing system – the connection of your project may not be immediately economically viable. In this case, you may wish to consider waiting until your local distribution company expands the system so that it can better accommodate your project.

Local distribution companies are required to develop plans for expansion or reinforcement of their respective systems to accommodate the connection of renewable energy generation facilities. These plans will generally be submitted to the Ontario Energy Board for approval every three years. The plans may enable connection of your project.

FIT application form question – distribution projects

- Do you require expansion of the distribution system to connect due to excessive connection costs in relation to your total project costs?

If your project requires expansion of the distribution system so that your connection costs are reasonable, you may choose not to submit connection details on your application form by answering YES to the question above. In this case, your project will:

- proceed directly to the next economic connection test. Your project will not undergo the transmission availability test or the distribution availability test (see section 5 of this document).
- wait in the FIT reserve and serve as an indicator to your local distribution company of where it needs to plan for a system expansion.

You will be offered a FIT contract once the required grid upgrades have been included in your local distribution company's approved expansion plans. You should be aware that you will still be required to cover the costs of the connection assets needed to connect your project to the nearest point on the expanded grid.

If you do not wish to wait for local distribution company expansion plans, you must answer NO to the question above and submit connection details on your application form. In this case, you will be responsible for the connection costs to the nearest point on the existing grid.

3.3 Connecting to the transmission system

The FIT Program will provide information on the location, magnitude sequencing and technology of renewable generation projects of interest to program applicants. This information is critical for the detailed development and scoping of plans for expanding the existing transmission system.

The OPA will take into account a broad range of economic, technical and commercial factors in scoping the details of transmission expansion plans, including:

- FIT contracts (location, timing, magnitude of generation and technology), FIT reserve and FIT production line
- capability of the existing system
- transmission system reliability requirements and benefits
- transmission project costs and impacts
- congestion costs
- changing demand
- other non-FIT-related generation developments
- trade with neighbouring jurisdictions.

Expansion of transmission system network facilities will remove constraints on these facilities. This will remove a critical barrier for renewable generation projects responding to the FIT Program. Transmission system connection upgrades triggered by renewable generation proposals are the responsibility of generators in accordance with the Transmission System Code.

a. Transmission-enabler facilities

The enabler concept provides a commercial mechanism for connection generation resources that are distant from the transmission system to the grid controlled by the Independent Electricity System Operator grid.

An enabler facility is:

“a line connection facility or a transformation connection facility that is or will be constructed, owned and operated by a transmitter and to which two or more generation facilities that are included in a renewable resource cluster are connected or intend to connect to convey energy into a transmitter’s transmission system...”

(Ontario Energy Board’s Transmission System Code)

The costs of the enabler facility are attributed to each project connecting to the enabler facility in proportion to:

- the nameplate capacity of the respective generation facilities at the time of connection expressed as a percentage of the total capacity of the enabler facility.

The enabler facility is triggered when either:

1. the connection facility is identified as an enabler facility and the associated renewable resource cluster is identified as such in an integrated power system plan that has been approved under Part II.2 of the *Electricity Act*, or
2. the Minister of Energy and Infrastructure issues a directive to the OPA and the Ontario Energy Board.

FIT application form question – transmission projects

- Do you require an enabler facility to connect?

Answering YES to the question above indicates that you are unwilling to absorb the entire cost of the connection requirement, and want to wait until there are enough projects clustered in a specific area to share the costs of the connection requirements. In this case, you will not be required to specify connection details on your application.

If you specify that you require an enabler facility, you will go directly to the FIT reserve and wait for the next economic connection test. Your project will not undergo a transmission availability test.

If you do not wish to wait for an enabler facility to connect your project, you must answer NO to the question above and submit connection details on your application form. You will also answer NO if you are planning to connect to an enabler facility that has already been identified in transmission expansion plans.

SECTION 4: SUBMITTING AN APPLICATION

4.1 Application requirements

After completing and submitting your application online, you will receive a confirmation email and your reference number. You must then submit an application package within five business days to the OPA.

The application package must include the following:

- two paper copies of your application form and of all of the supporting documents – one copy must be marked as “Original”
- one searchable electronic version provided on a CD or DVD
- application fee
- application security (if applicable)
- authorization letter
- evidence of site access rights
- evidence documenting the Aboriginal participation level (if applicable)
- evidence documenting the community participation level (if applicable).

Please ensure that your application is complete. An incomplete submission will be rejected and its time-stamp forfeited. You may, however, re-apply once your application documentation is complete.

4.2 Application and submission instructions

Please download the application instructions for full details on how to complete and submit an application. The instructions also provide details on the mandatory application materials listed above.

SECTION 5: CONNECTION AVAILABILITY ASSESSMENT

Part of the application review process is to determine whether there is sufficient transmission and distribution capacity available for your project at the proposed connection point. When there is sufficient capacity available to connect your project, you will be offered a contract.

When connection availability is insufficient to connect your project, the OPA will work with the IESO, transmitters and distributors as appropriate to determine the transmission and distribution upgrades required. As part of the process, the OPA will assess relevant applications in the area that require the same upgrades, and will assess whether the upgrades are justifiable.

The upgrades that are justifiable will be included in transmission and distribution expansion plans. A FIT contract will be offered once these upgrades have received the required approvals and the OPA is reasonably certain they will be completed by your milestone date for commercial operation.

There are five process elements designed to identify connection availability, or, when none is present, to facilitate development of plans for expanding the transmission and distribution system to enable the connection of FIT projects. These are described below.

5.1 Transmission availability test

The transmission availability test will be performed by the OPA to determine if there is sufficient transmission capacity available to connect your renewable energy project.

The test will be performed on both transmission- and distribution-connected projects. Distribution-connected projects must pass the transmission availability test before proceeding to the distribution availability test.

Applications will be assessed in sequential order based on their application time-stamp.

The transmission availability test considers a number of factors, including:

- the capability of the existing transmission system (i.e., the Independent Electricity System Operator-controlled grid)
- committed transmission system upgrades
- existing and committed generation facilities
- the balance between electricity load and generation
- reliability and service quality requirements.

There are three levels of assessment:

1. transformer station test
2. transmission circuit test
3. area test.

Possible results of the transmission availability test are set out in the table below.

Transmission availability test	Result	Next step
<ul style="list-style-type: none"> • there is currently connection availability, or • connection availability is expected before the project's milestone date for commercial operation 	pass	<ul style="list-style-type: none"> • proceed to contract if transmission-connected, or • proceed to distribution availability test if distribution-connected
<ul style="list-style-type: none"> • there is insufficient connection availability 	fail	<ul style="list-style-type: none"> • proceed to next economic connection test • project will serve as input to future transmission expansion plans

5.2 Distribution availability test

The distribution availability test applies only to distribution-connected projects. This test will be carried out by a local distribution company if a project first passes the transmission availability test. This test will determine if there is sufficient connection availability on the distribution system to connect your renewable energy project.

Applications will be assessed in sequential order based on their application time-stamp.

The distribution availability test will address two questions:

1. Is there or will there be capacity at the connection point provided?
2. Are there planned, approved, or system upgrades pending approval that will allow a project to connect and be in service by the project's milestone date for commercial operation?

The distribution availability test considers factors such as:

1. the capability of the existing distribution system and planned upgrades
2. existing and committed generation facilities
3. the ability of the distribution system to meet reliability and service quality requirements.

Possible results of the distribution availability test are set out in the table below.

Distribution availability test	Result	Next step
<ul style="list-style-type: none"> • there is currently connection availability, or • there are currently planned and approved distribution system upgrades that will allow the project to connect by the project's milestone date for commercial operation 	pass	<ul style="list-style-type: none"> • proceed to contract
<ul style="list-style-type: none"> • there are distribution system upgrades planned that are pending approval, or • there are currently approved distribution system upgrades; however, they will not be completed in time to allow the project to connect by the project's milestone date for commercial operation 	pass	<ul style="list-style-type: none"> • proceed to FIT production line
<ul style="list-style-type: none"> • there is insufficient connection availability 	fail	<ul style="list-style-type: none"> • proceed to next economic connection test • the project will serve as input to future distribution expansion plans

5.3 Economic connection test

The economic connection test determines whether the costs of the required grid upgrades to allow renewable generation to connect are justifiable and can be included in grid expansion plans.

The OPA will perform the test for transmission expansions and will consider:

- network facility reinforcements
- connection facility reinforcements
- enabler facilities.

The OPA and local distribution companies will work together to integrate transmission and distribution system planning.

Possible results of the economic connection test are set out in the table below.

Economic connection test	Result	Next step
<ul style="list-style-type: none"> required system expansions are deemed to be economical and will be included in transmission and distribution expansion plans 	pass	<ul style="list-style-type: none"> FIT production line contract will be awarded when required system expansions are approved and will be constructed in time to allow the project to connect and be in service by its milestone date for commercial operation
<ul style="list-style-type: none"> required system expansions are not deemed to be economical at this time 	fail	<ul style="list-style-type: none"> FIT reserve project will be re-evaluated during the next economic connection test, together with all other projects in the FIT reserve and FIT production line project will serve as input to future expansion plans

5.4 FIT production line

If your project passes the economic connection test, it will wait in the FIT production line until the required grid upgrades have received the necessary approval and the OPA is reasonably certain that they will be completed by your milestone date for commercial operation.

Projects will be removed from the production line and offered a FIT contract when the applicable transmitter or local distribution company notifies the OPA that the grid expansions will be ready on time.

a. Requirements

The OPA will not place your application in the FIT production line without your consent. Once you have accepted the FIT production line confirmation request sent to you by the OPA, your application will be placed in the FIT production line sequenced by time-stamp.

When your project is placed in the FIT production line, this means that connection capacity has been set aside for your project. For this reason, 10 percent of your application security immediately becomes at risk. Each time an economic connection test is run, an additional five percent of the application security will become at risk. This security also covers the extra cost of development work that the transmitter/local distribution company must do for the approval process. The economic connection test is expected to run in each region every six months.

You may withdraw your application from the FIT production line at any time by giving written notice to the OPA. The portion of the application security that is not at risk will be returned to you within 10 business days.

If your application is in the FIT production line or in a combination of the FIT production line and the FIT reserve for 10 years, the following may occur within 30 days after the 10-year anniversary of your application submission:

- you may withdraw your application from the FIT production line
- the OPA may remove your application from the FIT production line by providing written notice
- you may continue to wait in the FIT production line for a FIT contract.

5.5 FIT reserve

Your project will be placed in the FIT reserve if the economic connection test determines that the costs of the grid upgrades required to connect your project are uneconomical.

Over time, conditions may change so that the costs to connect your project become economical. Projects in the FIT reserve therefore will be included in each subsequent economic connection test, to re-assess whether the upgrade costs become economical. Other FIT projects, changing system characteristics and a wide range of circumstances make each economic connection test unique.

Once your project is placed in the FIT reserve, it will retain its application time-stamp and will wait until:

- it passes the economic connection test and can be placed in the FIT production line to await approval of the required upgrades
- it passes the economic connection test and is offered a FIT contract because the required system upgrades have been approved and will be ready by the time the project's milestone date for commercial operation.

a. Requirements

You may withdraw your application from the FIT reserve at any time. If you withdraw from the FIT reserve, the time-stamp for your application will be forfeited and the full amount of your application security will be returned to you.

If your application is in the FIT reserve or in a combination of the FIT production line and the FIT reserve for 10 years, the following may occur within 30 days after the 10-year anniversary of your application submission:

- you may withdraw your application from the FIT reserve
- the OPA may remove your application from the FIT reserve by providing written notice

- you may continue to wait in the FIT reserve.

Should you or the OPA withdraw your application from the FIT reserve after 10 years, the time-stamp of your application will be forfeited and the full amount of your application security will be returned to you.

SECTION 6: CONTRACT AND MILESTONES

6.1 Contract offer and acceptance

You will be notified of your FIT contract offer when the OPA determines there is, or will be, sufficient connection availability on the transmission and/or distribution systems to connect your project by its milestone date for commercial operation.

You will have 10 business days from the issuance of the contract offer by the OPA to accept the FIT contract and submit the required completion and performance security payment. If you do not accept your contract within the required time, you will lose your application security and contract offer and will be required to re-submit your application.

6.2 Licences and approvals

A number of licences and approvals may be required to complete your project. Please note that it is your responsibility to ensure the project complies with all laws, regulations, codes, permits, etc., with respect to zoning, safety and other matters. You are advised to investigate the requirements and implications of these licences and approvals before applying for a FIT contract.

Ministry/Agency	Requirement	Link
Ministry of the Environment	Renewable energy approval may be required for:	www.ene.gov.on.ca
Ministry of Natural Resources	<ul style="list-style-type: none">• ground-mounted solar PV projects• waterpower projects	www.mnr.gov.on.ca
Renewable Energy Facilitation Office	<ul style="list-style-type: none">• wind projects• bioenergy projects.	www.ontario.ca/renewableenergyprojects
Ontario Energy Board	A generating licence is required for all projects greater than 500kW.	www.oeb.gov.on.ca
Electrical Safety Authority	A safety inspection is required for all projects.	www.esainspection.net
Municipal building permits	Requirements vary for each municipality. Contact your municipality for more details.	www.amo.on.ca

6.3 Milestones

Once you have been issued a FIT contract, you will be required to meet a number of milestones in the contract. These milestones are summarized below. Please review the FIT contract for more details.

First completion and performance security	<ul style="list-style-type: none"> • \$50/kW for solar PV • \$20/ kW for all other projects • \$5/kW for community-based or Aboriginal projects with greater than 50 percent participation levels.
Impact assessments	<p>As applicable:</p> <ul style="list-style-type: none"> • connection impact assessment • customer impact assessment, system impact assessment
Domestic content plan	<p>Required for solar PV and wind projects</p>
Notice to proceed	<ul style="list-style-type: none"> • completed renewable energy approval • domestic content plan (if applicable) • completed impact assessment • financing plan
Second completion and performance security	<ul style="list-style-type: none"> • \$25/kW for solar PV • \$10/kW for all other projects • \$5/kW for community-based or Aboriginal projects with greater than 50 percent participation levels.
Commercial operation	<p>Must be reached within:</p> <ul style="list-style-type: none"> • three years for wind, solar and bioenergy • four years for off-shore wind • five years for waterpower. <p>Supplier must provide:</p> <ul style="list-style-type: none"> • metering plan • single-line electrical drawing that identifies the connection point, transmission and distribution facilities • independent engineer certificate • commercial operation declaration • domestic content report.

SECTION 7: CONTACT US

Thank you for your interest in the OPA's FIT Program for renewable energy developers.

If you have questions about the FIT Program, please contact the OPA as follows:

FIT Program	FIT@powerauthority.on.ca .
For problems with the website or technical support	webmaster@powerauthority.on.ca .
FIT Program call centre	1-888-387-3403
OPA contact information	Ontario Power Authority c/o FIT Program Suite 1600 120 Adelaide Street West Toronto ON M5H 1T1 www.powerauthority.on.ca info@powerauthority.on.ca