

## DIOCESE OF NIAGARA

### REPORT OF THE SOLAR ENERGY TASK FORCE

The Ontario Power Authority (OPA) has established a program to buy, at advantageous rates guaranteed for 20 years, electricity from very small or “micro” renewable electricity generation project (10 kilowatts or less in size). The photo voltaic systems have a particularly advantage tariff. A complete description of this **microFIT** program can be found at: <http://microfit.powerauthority.on.ca/>. This has generated a tremendous amount of interest in the community. There are opportunities for Parishes to join the program through purchasing a system from one of many vendors. Wind generated electricity project also have special a tariff offered by OPA, but not nearly as popular. Solar thermal systems (usually for domestic hot water) are also of interest but do not have the financial advantages of the photo voltaic or wind systems. Nevertheless the same guidelines can be applied to all three with little modification. Large solar systems (greater than 10 kW) come under another OPA program and are not considered here because they are not likely applicable to individual parishes.

At the initiative of the Greening Niagara Committee and the BACCB, a small task force was set up under the BACCB to prepare guidelines for parishes. It was viewed by the Task Force that solar energy systems are an opportunity for Parishes to show leadership in sustainable energy production. Small scale energy generation is a young industry in Ontario and there are many factors to be addressed to ensure a Parish has a successful experience when entering into an agreement with a vendor of solar energy systems, and to purchase and install such system.

With that in mind we set about to draw up some guidelines and a process for the Parishes and the Diocese to follow, if they were going to proceed. We felt this was a very important thing to do as it allowed others to learn from the successes and mistakes of the past. The task force took the report of the Tele-communications Tower Task Force as a model for this report. Parts of that report have been used verbatim. Useful information from the Ontario Power Authority website and the Greening Sacred Spaces website has been included as appendices.

**We therefore recommend to the Bishop the following information package and guidelines which should be followed whenever a Parish wishes to pursue installation of a solar energy system on its property. (See Enclosed)**

Respectfully submitted on behalf of the Task Force,  
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Chair, Solar Energy Task Force

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## **SOLAR POWER**

### **Information Package for Parishes considering a contract with a vendor of solar energy systems under the microFIT program of the Ontario Power Authority**

**This information package contains four sections and two appendices:**

- Section 1.** The appropriate consecutive steps to be taken by a Parish Corporation on considering installation of solar energy equipment on church premises
- Section 2.** A check list of concerns to be addressed before commencing negotiations
- Section 3.** A check list of matters to be considered in any draft contract before it is submitted to the Diocese for comment
- Section 4.** A Contract Summary Form to be submitted to the Diocese along with a copy of the Draft Contract with the Vendor, and the conditional offer of microFIT contract from OPA.
- Appendix A.** The Ontario Power Authority website contains detailed information on its microFIT program and good advice on the steps to follow. The text of that information is reproduced in this appendix.
- Appendix B.** The Greening Sacred Spaces website also contains a useful guide to acquiring a photo voltaic system. It is reproduced in this appendix.

# **DIOCESE OF NIAGARA**

## **SOLAR ENERGY**

### **SECTION 1**

#### **Appropriate consecutive steps to be taken by a Parish Corporation on entertaining installing solar energy equipment**

1. Obtain Parish approval at a vestry meeting to strike a committee to investigate acquiring a solar system and make recommendations.
2. Advise the Executive Officer of the Diocese, acting on behalf of the Bishop, and request a copy of the latest update of this Information Package. The Bishop may choose to name one or more individuals to be the Bishop's non-voting representatives on the Parish Negotiating Team.
3. Conduct negotiations with the Vendor using the Information Package material, Section 3, as a guide.
4. Agree upon terms of a proposed contract "subject to approval by the Parish Vestry and the concurrence of the Bishop". There shall be NO CONFIDENTIALITY CLAUSE which would exclude either the Bishop, the Bishop's advisors, or the Synod Council.
5. Obtain Approval of Parish at a Special Vestry Meeting of which due notice has been given.
6. Advise the Executive Officer of the Diocese of the resolution passed at the Special Vestry Meeting and obtain the Concurrence of the Bishop and Synod Council.
7. If the system is intended to come under the OPA microFIT program complete and submit the application.
8. Sign Contract with Vendor conditional of acceptance of the system under the microFIT program.

# **DIOCESE OF NIAGARA**

## **SOLAR ENERGY**

### **SECTION 2**

**Check list of concerns to be addressed by Parish Corporation before commencing negotiations with Vendor.**

**Keep Notes of All Meetings to make sure all items discussed are included in the contract.**

#### **Concerns Relating to Approval**

Need to examine of the impact of the project on the overall ministry of the parish. Will this project enhance the parish's ministry or hinder it? (Consider volunteer resources, building modifications, financial resources, etc.)

Need to address concerns of parishioners.

Need for approval by a majority of the congregation at a vestry meeting called in accordance with the Canons of the Diocese.

Need to check Decennial Inspection Report and address any high priority issues

Need to obtain concurrence of the Bishop and Synod Council.

#### **Concerns Relating to the Structure and Equipment**

Will solar panel array be visible - unsightly - detract from the church building's key purpose?

Are there any compliance issues with local by-laws, etc.?

Need to notify and address concerns of neighbours.

Need to obtain architect's and/or engineer's advice regarding aesthetics, structural integrity and maintenance.

Need to obtain satisfaction on questions of potential vibration or noise.

Will the solar energy equipment interfere with Parish's present or contemplated equipment? (e.g. electronics or hearing systems)

#### **Concerns Relating to Finance and/or Legal Liability**

Is Parish assuming additional maintenance responsibilities?

Need to determine potential cost of meeting concerns of neighbours.

Insurance implications need to be reviewed by Diocesan Insurance Administrator.

Consider adequacy of the return on investment over the 20 year term of the microFIT contract given the actual cost of the contract with the vendor, connection charges, and realistic maintenance estimates.

# DIOCESE OF NIAGARA

## SOLAR ENERGY

### SECTION 3

#### **3.1 Check list of matters to be considered in Contract when purchasing a solar energy system on church property**

##### **Preamble**

There will typically be two contracts the parish will enter into:

- One with the vendor who will supply and install the system. The check list above for a rental situation can be used as a guide, with adaptation to the purchase and installation of a system. Some additional things to be concerned with include: the specifications of the system and components; delivery; made in Ontario provisions (to conform to microFIT requirements); warranty. The solar energy system vendor field is a rapidly changing and expanding one, with many new vendors entering the business. It is therefore incumbent on the parish to select a vendor very carefully. Some good advice is given in Appendix A, under "Questions to ask your installer". Other agencies that offer useful advice and that do some prescreening of vendors are Halton Environmental Network (<http://haltonenvironment.com/here/photovoltaic-pv-systems/>) and Our Power (<http://www.ourpower.ca/>). At the time of writing the former offers, from time to time, tours of installed sites where you can speak to owners directly. They also have a list of vendors that they have confidence in. The latter will provide an initial assessment of the feasibility of a photovoltaic system at your site for a very modest fee (\$25, July 2010). They also offer site tours through the Toronto Renewable Energy Co-operative: <http://www.trec.on.ca/reeducation/tours.html>.
- A conditional offer of microFIT contract from OPA after acceptance of your application, followed by a microFIT contract after the project is completed. There is little flexibility in this contract so the parish should be aware of the terms in the contract, therefore the microFIT contract should be reviewed carefully in advance and can be viewed on the OPS website at <http://microfit.powerauthority.on.ca/Program-resources/Contract.php>

##### **Vendor:**

Know whom you are dealing with, that is, is the company an equipment supplier, an installer, or a complete system integrator (turnkey).

Ensure that the contract is continuous and enforceable.

##### **Clauses Relating to the Structure and Equipment**

**Use of existing building "as is" or construct addition:**

**Ancillary equipment and housing thereof:**

**Equipment visibility:**

(Make sure you get what you think you are getting. NO surprises)

**Aesthetics:**

**Destruction of church property (e.g. damage to roof):**

(What happens if the roof starts to leak ?)

**Hazardous substance clauses:**

(Are there any such substances? A clause is required in any event)

**Preparation of plans, conducting surveys, etc.:**

**Right to terminate:**

(Consider the rights of each party)

**Notice of intention to terminate:**

**Termination obligations and penalties:**

**Advance payment:**

**HST provisions:**

(May be paid to the parish which must account therefore)

**Liability provisions on the part of the vendor:**

(A “Waiver of Subrogation” or “Hold Harmless” clause is NOT acceptable)

**Contractor’s Insurance obligations:**

(The contracts will need to include Insurance coverage as follows:

- (a) All Risks property coverage on a Replacement Cost basis to cover the equipment.
- (b) Tenant’s Legal Liability coverage for the Full Value of the Building on which the equipment is located for the duration of the time the contractors are at the premises working.
- (c) Public Legal Liability coverage of not less than \$2,000,000, naming the Synod of the Diocese of Niagara and the Parish as Additional Insureds; and a Certificate of Insurance is to be provided before any work is commenced

Upon sign off by the parish that everything is in working order and the parish now owns the equipment, a call letter or email should be sent to the Insurance Administrator of the Diocese with the amount of the installed equipments value so that the coverage can be added to the parishes account under the diocesan insurance policy. The parish may have to buy the equipment earlier than the final date of signoff ..so in that case the parish may need to add the coverage to the insurance policy earlier.)

**Codes, by-law, Electrical Safety Authority (ESA), and other compliance issues (Note that these may vary by jurisdiction):**

**Legal, architectural, engineering and other professional cost obligations:**

**Confidentiality provisions (cannot exclude either the Bishop, the Bishop’s advisors or Synod Council):**

**DIOCESE OF NIAGARA**

**SOLAR ENERGY**

**SECTION 4**

**CONTRACT SUMMARY FORM**

**To be forwarded to the Diocese together with a copy of the Draft Contract with the vendor and the conditional offer under the microFIT program of the Ontario Power Authority.**

**(All sections MUST be completed using "None" or "Not Applicable" where appropriate)**

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**Name of Solar Energy system vendor company:**

**Proposed Startup Date:**

**Completion Date:**

**Location of Equipment:**

**Rights of Access:**

**Hazardous Substances:**

**Contractor Insurance Coverage:**

**Responsibility for connection to local electricity utility:**

**Codes, By-Law, and ESA Compliance:**

**Notification of Diocesan Insurance Administrator:**

**Other Relevant Documents and Clauses:**

# **DIOCESE OF NIAGARA**

## **SOLAR POWER**

**Information Package for Parishes considering a contract with a vendor of solar energy systems under the microFIT program**

Appendix A

*This appendix contains advice copied directly from the Ontario Power Authority (OPA) website. The web pages are listed at the bottom of each section. Note that their references to GST should probably now read HST (2010-07-29).*





## What you should know

It's important to be aware of your **responsibilities** as a participant in this program. These include:

- researching available products and offers to find the best renewable energy system for you
- purchasing and installing your renewable energy system
- meeting all applicable safety standards, including arranging for and paying for inspection of your project by the Electrical Safety Authority
- obtaining permitting and other approvals, including municipal building permits if required
- working with your local electricity distribution company to connect your project to the electricity grid and paying for all connection-related costs
- entering into a long-term contract with the Ontario Power Authority
- paying your local electricity distribution company for account charges and metering fees
- paying for any associated insurance costs, as well as professional fees for legal and tax advice
- meeting the domestic content rules set by the Ontario Government.

The OPA has developed a checklist of common questions that you can use when you are developing your microFIT project. These questions will help you to make informed decisions BEFORE you invest in your microFIT project.

[Questions to ask your installer](#)

[Questions to ask your local distribution company](#)

[Approvals and permits](#)

[Tax considerations](#)

(From: <http://microfit.powerauthority.on.ca/Participating-in-microFIT/What-you-should-know/index.php> )



## Questions to ask your installer

- Do you have experience installing small renewable energy projects in Ontario or other jurisdictions? Can you provide a list of past customers who would be willing to provide references?
- Are your installers qualified to install the project? Do they meet all necessary safety regulations, licensing and certification requirements?
- Are you registered with the Better Business Bureau?
- Do you provide warranties on your labour and products?
- Do you have general liability insurance to cover property damage or injury?
- Do you have any pending or active legal judgements against your company?
- In addition to the installation, what other services do you provide? What are the costs of these services?
- Will you assess my property to ensure that the system is installed at an optimal location? For example, will you ensure that my solar PV system is not in a shaded area? Or, will you ensure that my site has appropriate wind for a micro-wind turbine?
- Will you order all the required equipment for the project? What is the full cost of the total installation?
- What are the ongoing operating and maintenance costs I can expect and who will be responsible for them?
- Will you arrange for all necessary approvals and permits? This includes:
  - building permits
  - authorization to connect from the Electrical Safety Authority
  - renewable energy approval, if required.
- Will you work with my local distribution company to arrange for connection to the grid? This includes:
  - preparing the connection configuration diagrams
  - arranging for payment of the connection costs
  - helping prepare the connection agreement with the local distribution company
  - arranging for installation and testing of the meter.
- Will you help me prepare my microFIT Program application?
- For solar PV projects, will you provide written confirmation of the activities contributing to the domestic content level required by the microFIT Rules and contract?

(From: <http://microfit.powerauthority.on.ca/Participating-in-microFIT/What-you-should-know/Installers.php> )



## Questions to ask your local distribution company

- What are the costs associated with connecting my microFIT project to the grid?
- What are the ongoing account fees or metering charges that will be associated with my microFIT project?
- What can I expect in terms of timing to connect my project?
- Are there any technical or equipment requirements for connecting my project safely to the grid?
- What information do you require on your connection request?

(From: <http://microfit.powerauthority.on.ca/Participating-in-microFIT/What-you-should-know/Local-distribution-company.php> )



## Approvals and permits

### Questions to ask the [Electrical Safety Authority](#):

- What are the safety standards that apply to my microFIT project?
- What is involved in a safety inspection?
- What is the cost of a safety inspection?
- What can I expect in terms of timing for my safety inspection?

### Questions to ask your [municipality](#):

- Will my microFIT project require a building permit?
- What are the costs of obtaining a building permit?
- What can I expect in terms of timing to obtain my building permit?

### Questions to ask the [Ministry of the Environment](#):

- Does my project require a renewable energy approval?
- What steps are required to obtain a renewable energy approval?
- What are the typical costs of obtaining a renewable energy approval?
- What can I expect in terms of timing to obtain a renewable energy approval?

(From: <http://microfit.powerauthority.on.ca/Participating-in-microFIT/What-you-should-know/Approvals-and-permits.php> )



## Tax considerations

### Questions to ask your accountant, tax advisor or the [Canada Revenue Agency](#):

- Am I required to become a goods and services tax (GST) registrant and to collect and remit GST for the revenue attributed to my project?
- How do I become a GST registrant?
- What are the costs associated with becoming a GST registrant?
- What can I expect in terms of timing to obtain a GST registration number?
- How do I remit GST?
- Am I required to declare the revenue paid to me under the microFIT contract as income? Personal income or business income?
- What deductions am I entitled to if I must declare the income?

### Questions to ask your [municipality](#):

Will my microFIT project affect my property taxes? If so, how?

(From: <http://microfit.powerauthority.on.ca/Participating-in-microFIT/What-you-should-know/Tax-considerations.php> )

## **DIOCESE OF NIAGARA**

### **SOLAR POWER**

**Information Package for Parishes considering a contract with a vendor of solar energy systems under the microFIT program**

Appendix B

*This appendix contains advice copied directly from the Greening Sacred Spaces website: (<http://www.greeningsacredspaces.net/images/docs/going-solar-pv.pdf> ).*



## Going Solar Photovoltaic (PV): A Step-by-Step Guide

### ➤ MAKING THE DECISION

#### Get Some Quotes

First get some site assessments and cost estimates/quotes for a number of different sizes of system from several solar system suppliers. Your solar power system will typically include a set of

panels attached flush to your south facing sloped roof, a new meter to measure the power generated, and a connection to your electrical box so it can be fed into the grid. A system installed

on a flat roof may cost more because it will need a rack and perhaps roof modifications. Each kW of

solar panels will need about 75 square feet of roof space.

These supplier quotes will:

- Confirm whether your south facing roof area is sufficient and whether you need any roof modifications to attach the solar panels
- Provide a cost estimate including any roof modifications needed and full installation, connections, inspections and warranties
- Give you an estimate of how many kWh/yr the system will generate and the annual revenue you can expect over the 20 years of your MicroFIT contract

Carry out a financial analysis

Estimate whether your system will be a worthwhile investment.

- Evaluating the Financial Implications and costs
- Consider your financing options and plans

Compare different size systems and other options. Decide whether to borrow funds and from whom.

#### Make Your Decision

Based on the information you have collected decide what size system you would like to install and which supplier you would like to use.

### ➤ IMPLEMENTING YOUR MICROFIT PROJECT

You are now ready to apply to the MicroFIT Program for a provisional contract offer, install and connect your system, and then finalize your contract. For more information visit

<http://microfit.powerauthority.on.ca/>

1. Register with the Ontario Power Authority (OPA)  
Go to <http://microfit.powerauthority.on.ca/sign-up-pre.php> to register and obtain a My MicroFIT Home Page.
2. Apply for a Conditional MicroFIT Contract Offer from the OPA  
Work with your supplier to prepare the necessary drawings and other details needed for applications for a conditional MicroFIT contract, building permit, electrical permit, and connection agreement. Go to <http://microfit.powerauthority.on.ca/Participating-in-microFIT/microFITprogramoverview/> to submit an on-line application.
3. Obtain a Connection Agreement with your Local Distribution Centre (Hydro Company)

Once the OPA has provided you with a Conditional Contract Offer, apply for a Micro Embedded Connection Agreement using a request form provided by Hydro. They will respond to your connection request and provide you details about how your project will be connected and the costs involved. The agreement will cover:

- Technical requirements (including disconnection devices, maintenance)
- Liabilities (e.g., responsibilities for damages)
- Compensation and billing (relating to payments for electricity generation)
- Termination and assignment of the agreement.

4. Obtain Building and Electrical Permits

Flush mounting solar panels on a roof requires rafter spacing and unsupported spans in the roof to be adequate. A City building inspector will assess this based on the drawings provided by your solar system supplier. The cost of a permit will be in the order of \$250. Visit Speak to your local City officials for more details. Your supplier will arrange for electrical permits and inspections.

5. Arrange financing and insurance

Make arrangements with your home insurance company to add the value of your solar system to your insurance and ensure that your liability coverage is adequate. Arrange financing with your supplier, financial institution or other program

6. Install your system and have it inspected

Your supplier will install your system and normally arrange for all inspections.

7. Arrange for connection to the grid

Provide Hydro with:

- A letter of authorization to connect from the Electrical Safety Authority
- Payment for the connection costs
- A signed Micro-Embedded Connection Agreement

Hydro will then install a meter and connect you to the grid.

8. Finalize your contract with the Ontario Power Authority

The OPA will send you a notice of MicroFIT contract offer that you accept through your My MicroFIT Home Page. Payments will be made to you by Hydro for all the electricity produced by your MicroFIT project.

**Disclaimer:** This information is intended to make faith communities aware of solar electric system as a guide only, but does not constitute an opinion and should not be relied upon as such. The advisability of any course of action mentioned above depends on your particular financial, tax and legal circumstances