*ecoENERGY for Renewable Heat*

# SOLAR AIR HEATING SYSTEM
# APPLICATION FOR THE DEPLOYMENT INCENTIVE

***Please print***

**IMPORTANT**

**1. Payment will be made only for expenses incurred after the signing of a contribution agreement, with the exception of expenses for feasibility, permits, design and simulations, which may be incurred in advance of the signing of a contribution agreement.**

**2. Missing information will delay the processing of your application.**

| **SECTION 1 – APPLICANT** | | |
|---|---|---|
| First Name: | Last Name: | |
| Title: | Preferred Language: ☐ English ☐ French | |
| Business/Institution Name: | | |
| Mailing Address: | | |
| City: | Province/Territory: | Postal Code: |
| E-mail Address: | Telephone: ( ) | Cellphone: ( ) |
| Fax: ( ) | GST No.: | Corporate Registration No.: |

| | |
|---|---|
| For technical information about the solar system, who should Natural Resources Canada contact? | |
| ☐ Applicant ☐ Project Manager ☐ Supplier ☐ Installer ☐ Designer/Engineer | |
| For information about the project status, who should Natural Resources Canada contact? | |
| ☐ Applicant ☐ Project Manager ☐ Supplier ☐ Installer ☐ Designer/Engineer | |

| **SECTION 2 – PROJECT MANAGER** (if different from Applicant) | | |
|---|---|---|
| First Name: | Last Name: | |
| Title: | Preferred Language: ☐ English ☐ French | |
| Business/Institution Name: | | |
| Mailing Address: | | |
| City: | Province/Territory: | Postal Code: |
| E-mail Address: | Telephone: ( ) | Cellphone: ( ) |
| Fax: ( ) | | |

| **SECTION 3 – ENERGY END-USER** (complete this section ONLY if the Applicant is an Energy Firm) | | |
|---|---|---|
| First Name: | Last Name: | |
| Title: | | |
| Business Name: | | |
| Mailing Address: | | |
| City: | Province/Territory: | Postal Code: |
| E-mail Address: | Telephone: ( )<br>Cellphone: ( ) | Fax: ( ) |

Select as many of the following options that apply to the nature of the Energy Firm arrangement:

☐ The Energy Firm will sell energy to the end-user.
☐ The Energy Firm will only supply and install the solar system.
☐ The energy end-user will lease-to-own the equipment.
☐ Other – please specify.

| **SECTION 4 – SYSTEM SUPPLIER** | | |
|---|---|---|
| First Name: | Last Name: | |
| Business Name: | | |
| Mailing Address: | | |
| City: | Province/Territory: | Postal Code: |
| E-mail Address: | Telephone: ( )<br>Cellphone: ( ) | Fax: ( ) |

| **SECTION 5 – SYSTEM INSTALLER** | | |
|---|---|---|
| First Name: | Last Name: | |
| Business Name: | | |
| Mailing Address: | | |
| City: | Province/Territory: | Postal Code: |
| E-mail Address: | Telephone: ( )<br>Cellphone: ( ) | Fax: ( ) |

| **SECTION 6 – SYSTEM DESIGNER** | | |
|---|---|---|
| First Name: | Last Name: | |
| Business Name: | | |
| Mailing Address: | | |
| City: | Province/Territory: | Postal Code: |
| E-mail Address: | Telephone: ( )<br>Cellphone: ( ) | Fax: ( ) |

**SECTION 7 – PROJECT LOCATION**

1. Project Location (if address is different than Applicant):

Business/Institution Name:

Street Address:

| City: | Province/Territory: | Postal Code: |
|---|---|---|

2. Is the building owned by the Applicant (i.e. Project Location)? ☐ Yes ☐ No If not, describe the relationship of the Applicant to the building owner (Project Location). Please attach proof of permission to proceed on a building not owned by the Applicant.

3. Nature of business/institution (e.g. farming, manufacturing, etc.). Please specify.

4. Purpose of the building:

☐ Farm building; ☐ Motel; ☐ Hotel; ☐ Bed and breakfast; ☐ Office building; ☐ Educational facility; ☐ Manufacturing plant;
☐ Retail outlet; ☐ Recreational facility; ☐ Warehouse / storage facility; ☐ Condominium corporation; ☐ Apartment building;
☐ Hospital; ☐ Seniors' home; ☐ Garage; ☐ Laboratory;
☐ Other (please describe):

Building footprint (area): _____$m^2$ x Building height: _____m = Building volume: _____$m^3$

5. Describe any shading that may affect sun exposure to the solar collectors at any time of year (e.g. adjacent buildings, tall trees).

6. Does the Project Location have access to either the North American natural gas pipeline network or an electrical power grid?
☐ Yes ☐ No

**SECTION 8 – SOLAR SYSTEM – GENERAL**

Is the solar system part of a larger project? ☐ Yes ☐ No

Is the solar system a: ☐ New installation ☐ Retrofit ☐ Expansion

What is the commissioning date of the solar system only (i.e. when put into service)? Month _____ Day _____ Year _____

Will the solar system benefit from any other government funding program (municipal, provincial/territorial, federal)?

☐ Yes ☐ No If yes, what is the estimated funding amount? $_____

Please provide details on any other funding program involved.

Does the solar system include any used and/or recycled components? ☐ Yes ☐ No

If yes, list the used and/or recycled components.

Percentage use of the solar system:

____% direct space heating

____% make-up air heating

____% ventilation air heating

____ % destratification

____ % industrial process heat

____ % other – please specify: _____

**The above must total 100%.**

| **SECTION 9 – SOLAR SYSTEM – ENVIRONMENTAL ASSESSMENT & TECHNICAL DATA** | |
|---|---|
| 1. Select as many of the following options that apply:<br><br>a. ☐ increase the footprint or height of the building by more than 10%<br>b. ☐ increase the footprint of the building by 25 $m^2$ or more<br>c. ☐ involve any construction within 30 m of a body of water<br>d. ☐ involve the likely release of a polluting substance into a body of water<br><br>If you have checked any of the above, an environmental assessment will be required. (See *Terms and Conditions*) | |
| **Energy Load**<br><br>Estimated annual heating load to which the qualifying solar system will contribute: _____ (GJ/year)<br><br>Expected contribution of the solar system: _____(%)<br><br>If load is not known, what is the annual energy cost? _____ ($/year) | |
| **Estimated Annual Savings**<br>Solar system energy output: _____ (GJ/year)<br>Auxiliary heating system annual efficiency: _____(%)<br>Displaced energy: _____ (GJ/year) – *[energy output] ÷ [auxiliary heating system annual efficiency*]<br>Type(s) of fuel being displaced (e.g. light fuel oil, propane, gas): _____<br>Current unit cost of fuel(s) being displaced: _____ ($/GJ)<br>Displaced energy savings: _____ ($/year) [*displaced energy x unit cost*] | |

**Collector**

Individual collector gross dimensions:

Length: _____ (m) x Width: _____ (m) = Gross area:_____ ($m^2$)

Number of collectors: _____

Total collector gross area: _____($m^2$)

Collector manufacturer: _____ Model: _____

Collector type: ☐ Glazed ☐ Unglazed

Collector slope: _____ (degrees from horizontal)

Collector azimuth (orientation): _____ (degrees east or west of south)

Total collector design flow rate: _____ (litres/second)

**Heating Load**

What is the minimum supply air temperature? _____ (°C)

What is the maximum useful air temperature? _____ (°C)

Is there a bypass damper? ☐ Yes ☐ No

If yes, quote the bypass temperature: _____(°C)

**Operating Schedule of System**

Detail the specific daily hours of operation of solar system over an average week.

What is the annual operation? First month: _____ Last month: _____

On a separate sheet, attach a sketch of the solar system including the dimensions of the collector layout and the interface with the auxiliary and distribution systems.

Attach a simulation output from either the SWIFT or the RETScreen® International computer program showing expected performance, input assumptions, geographical location used, etc.

| **SECTION 10 – COST BREAKDOWN (excluding GST, PST & HST)**<br><br>**Costs indicated here will be considered as final.** | |
|---|---|
| **Solar Air Heating System Components**<br>(do not include used equipment) | **Cost**<br>(excluding taxes) |
| Collectors | |
| Collector rack and/or support components | |
| Ducting from collector to interface with auxiliary heater | |
| Insulation on eligible ducting (i.e. ducting from collector to interface with auxiliary heater) | |
| Dampers | |
| Collector fan(s) | |
| Photovoltaic components used to power solar system equipment | |
| Solar system controller | |
| Equipment Cost Subtotal | |
| **Solar Air Heating System Project Soft Cost** | |
| Project feasibility and design (not to exceed more then 10% of total project costs) | |
| Permits (exclusively for solar system installation) | |
| Project management | |
| Installation labour | |
| Shipping | |
| Commissioning | |
| Other (specify) | |
| **TOTAL SOLAR SYSTEM COST:** | |

| **TOTAL SOLAR SYSTEM COST PER m² OF COLLECTOR AREA:** | $_____ /m² |
|---|---|

**IMPORTANT: MISSING INFORMATION WILL DELAY THE PROCESSING AND APPROVAL OF YOUR APPLICATION.**

## SECTION 11 – SIGNATORY

The Application must be reviewed and signed by the Applicant.

Check box: ☐ I have read the *Terms and Conditions* under ecoENERGY for Renewable Heat program.

**I have read the *Terms and Conditions* for eligibility for the ecoENERGY for Renewable Heat incentive. I understand that no incentive payment will be made unless Natural Resources Canada decides to enter into a Contribution Agreement. I certify that the information given in this application is correct and complete. I understand that the incentive does not constitute a warranty for endorsement by the Government of Canada, and that all legal liabilities remain with manufacturers, suppliers and installers of qualifying systems, and not with the Government of Canada.**

In order to receive an incentive, the system installed must be as described in the application.

Print Name: _____
Applicant

Signature: _____ Date: Month_____Day_____Year_____
Applicant

Mail this completed application form to:

ecoENERGY for Renewable Heat
Renewable and Electrical Energy Division
Natural Resources Canada
615 Booth Street, Room 150
Ottawa ON K1A 0E9

For more information, contact:

E-mail:ecoENERGYRHP@NRCan.gc.ca
Tel.: 1-877-722-6600, Option 2 (toll-free)
Fax: 613-943-6517