

ecoENERGY for Renewable Heat

SOLAR WATER 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/Te	erritory:	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/Te	erritory:	Postal Code:	
E-mail Address:	Telephone: () Cellphone: ()		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:		Postal Code:	
E-mail Address:	Telephone: () 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: () Cellphone: ()	Fax: ()		

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

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

SECTION 7 - PROJECT LOCATION			
1. Project Location (if address is different th	an Applicant):		
Business/Institution Name:			
Street Address:			
City:	Province/Territory:	Postal Code:	
2. Is the building owned by the Applicant (i.e. Project Location)? \Box Yes \Box No If not, describe the relationship of the Applicant to the building owner (i.e. 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 □ Yes □ No	either the North American natural gas pipeline	network or an electrical power grid?	

SECTION 8 – SOLAR SYSTEM – GENERAL
Is the solar system part of a larger project? \Box Yes \Box 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)?
\Box Yes \Box 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:
% space heating/ventilation
% hot water for general use, e.g. washrooms and showers
% industrial process
% heating for swimming pool
% other – please specify:
The above must total 100%.

SECTION 9 – SOLAR SYSTEM – ENVIRONMENTAL ASSESSMENT AND TECHNICAL DATA		
1. Select as many of the following options that apply:		
 a. □ increase the footprint or height of the building by more than 10% b. □ increase the footprint of the building by 25 m² or more c. □ involve any construction within 30 m of a body of water d. □ involve the likely release of a polluting substance into a body of water If you have checked any of a. through d. above, an environmental assessment will be required. (See <i>Terms and Can ditions</i>)		
Conditions.)		
Energy Load		
Estimated annual water heating load to which the qualifying solar system will contribute: (GJ/year)		
Expected contribution of the solar system:(%)		
If load is not known, what is the annual energy cost? (\$/year)		

Estimated Annual Savings Solar system energy output:
Auxiliary heating system annual efficiency:(%) Displaced energy:(GJ/year) – [energy output] ÷ [auxiliary heating system annual efficiency] Type(s) of fuel being displaced (e.g. light fuel oil, propane, gas): Current unit cost of fuel(s) being displaced:(\$/GJ) Displaced energy savings:(\$/year) [displaced energy x unit cost] System Type □ Glycol closed loop □ Drainback □ Thermosiphon
Displaced energy:(GJ/year) – [energy output] ÷ [auxiliary heating system annual efficiency] Type(s) of fuel being displaced (e.g. light fuel oil, propane, gas): Current unit cost of fuel(s) being displaced:(\$/GJ) Displaced energy savings:(\$/year) [displaced energy x unit cost] System Type □ Glycol closed loop □ Drainback □ Thermosiphon
Type(s) of fuel being displaced (e.g. light fuel oil, propane, gas): Current unit cost of fuel(s) being displaced:(\$/GJ) Displaced energy savings:(\$/year) [displaced energy x unit cost] System Type □ Glycol closed loop □ Drainback □ Thermosiphon
Current unit cost of fuel(s) being displaced:(\$/GJ) Displaced energy savings:(\$/year) [displaced energy x unit cost] System Type Glycol closed loop Drainback Drhermosiphon
Displaced energy savings: (\$/year) [displaced energy x unit cost] System Type □ Glycol closed loop □ Drainback □ Thermosiphon
System Type
□ Glycol closed loop □ Drainback □ Thermosiphon
□ Glycol closed loop □ Drainback □ Thermosiphon
□ Other – please specify:
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 (including evacuated tube) □ Unglazed
Collector slope: (degrees from horizontal)
Collector azimuth (orientation): (degrees east or west of south)
Total collector design flow rate: (litres/second)
Fluid Type
□ Water □ Glycol
□ Other – please specify:
If glycol, indicate dilution: % water, % glycol

Heat Exchanger Information	
Function: Collector to storage Storage to load	
Туре:	
External: provide heat transfer rate: (W/°C)	
Internal: provide the following:	
Total heat exchanger area: (m ²)	
Material type: (e.g. copper, stainless steel, etc.)	
Wall thickness: (mm)	
Internal diameter: (mm)	
Other information:	
Solar Energy Storage Information (if applicable)	
Total storage capacity: (litres)	
Number of tanks:	
Capacity per tank: (litres)	
Pool (if applicable)	
Type of pool: □ Indoor □ Outdoor	
Pool surface area: (m ²)	
Percentage of pool area that is shaded: (%)	
Pool operation:	
Start date:/ End date:/	
(MM/DD) (MM/DD)	
Is there an auxiliary heater? \Box Yes \Box No	
What is the set point?(°C)	
Period of pool blanket use:	
Start date: End date:	
(MM/DD) (MM/DD)	

Hot Water Load Information (if applicable)	
Hot water consumption: (litres/day)	
Describe any seasonal variation in consumption.	
Average cold water temperature:(°C)	
What is the hot water set point temperature? (°C)	
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 the Enerpool, Watson, Polysun, RETScreen [®] International or T*SOL computer programs showing expected performance, input assumptions, geographical location used, etc.	

SECTION 10 – COST BREAKDOWN (excluding GST, PST and HST)	
NOTE: Costs indicated here will be considered as final.	
Solar Water Heating System Components (do not include used equipment)	Cost (excluding all taxes)
Collectors	
Collector rack and/or support components	
Piping and pipe insulation between the collectors and the auxiliary heater	
Solar heat exchanger(s)	
Solar heat storage equipment	
Photovoltaic components used to power solar pump(s)	
Solar pump(s)	
Solar system controller	
Equipment Cost Subtotal	
Solar Water Heating System Project Soft Cost	
Project feasibility, 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 m ² 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: _____

Applicant

Date: Month____Day___Year____

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:

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

Canad



