

Form Ia – Application for Eligibility for solar air preheating projects

Solar Preheating Grant¹

* Mandatory fields

Section 1 – Identification of customer

* Name of company:

Énergir Account No.: (if known)²:

* Service address:

* Municipality: * Postal code:

* Resource-person:

* Title:

* Telephone: * Cell:

* Fax: * E-mail:

* Postal address:

* Where to send financial assistance: billing address postal address

* Preferred means of communication: by mail by e-mail³

Section 2 – Identification of others associated with the project

Supplier of system

* Family name and first name:

* Title:

* Company:

* Address:

* Municipality: * Postal code:

* Telephone: * Cell:

* Fax: * E-mail:

Project Manager: or designate:

* Family name and first name:

* Title:

* Company:

Address:

Municipality: Postal code:

Telephone: * Cell:

Fax: * E-mail:

* Expected date of start-up of solar preheating system:

day / month / year

¹ This grant may end at any time.

² If the facilities have different Énergir account numbers, submit separate requests for financial assistance for each Énergir account number.

³ Communications may include personal information within the meaning of the law.

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Section 3 – Information about the building and the positioning of the solar collectors

Information about the building

* Type of building: commercial institutional industrial agricultural multi-housing

* For a multi-housing building, number of units:

* Number of floors:

* Existing building, year of construction:

* New construction, date work will start:

and date work will finish:

day / month / year

| Surface area in square metres (A) | Height of building in square metres (B) | Total volume (A x B) |
|-----------------------------------|---|----------------------|
| <input type="text"/> | <input type="text"/> | <input type="text"/> |

* Please indicate the principal use of the building (e.g., poultry house, warehouse, rental unit):

Information about positioning of solar collectors

* Please indicate if the exposure of the solar collectors may vary during the year (for example, due to shade from adjacent buildings, trees, etc.):

Complete the blank cells edged in blue

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Section 4 – Information about the solar preheating system

| | Type of collectors | Manufacturer and models | Colour |
|---|--------------------|-------------------------|--------|
| 1 | | | |
| 2 | | | |
| 3 | | | |

The participant certifies that the proposed collector's physical characteristics correspond to the one found in the SRCC certificat of that model.

Yes No – Please list all differences (material, glazing type, thickness, transmissivity, air flow, etc.):

| | Gross dimensions of individual collectors | | | Inclination angle (degrees from horizontal plane) | Orientation of collectors (degrees east/west of due south) | Expected total flow from collectors (litres/second) |
|---------------------------|---|-----------|--------------------------------|--|---|--|
| | Length (m) | Width (m) | Surface area (m ²) | | | |
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |
| Total surface area | | | | | | |

For glazed collectors on a brick base, indicate the building's operating hours (e.g. 8:00 am – 4:00 pm):

* Total annual savings due to the solar preheating system (including destratification): m³/year

* Annual savings achieved with solar preheating system (excluding destratification): m³/year

Annual savings achieved simply by destratification: m³/year

Section 5 – Information about annual energy savings

* Net energy supplied by solar preheating system (A): (Gj/year)

* Annual efficiency of back-up preheating system (B): (%)

* Energy load replaced (A/B): (Gj/year)⁴

* Besides the natural gas, is another energy replaced by the solar system? Yes No

If yes: light fuel oil propane electricity

| Energy replaced | % |
|------------------|---|
| Energy indicated | |
| Natural gas | |

Complete the blank cells edged in blue

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⁴ Equals net energy supplied by the solar preheating system, divided by annual efficiency.

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Section 6a – Process information

* Please indicate if the solar collector will preheat process air (burner, dryer, other):

Yes (Please fill only section 6a) No (please fill only section 6b)

* Please indicate if the process is connected to the solar collector: Yes No

* Please indicate process natural gas consumption: (in m³/yr)

* Please describe the process and its preheated air consumption

* Please indicate process air flow consumption: (in L/s)

* Please indicate number of hours of current use: (in hrs/week)

and future use: (in hrs/week)

* Please indicate the average supply temperature: (in degrees Celsius)

fixed variable

* Please indicate the current and proposed process air heating strategy:

* Please provide the solar collector control sequence or logic with respect to the process:

Section 6b – Information on the ventilation system used for space heating only

* Please indicate if the space heating appliance is connected to the solar collector: Yes No

* Please indicate if the space heating appliance is a: Rooftop unit Make-up air ventilation system

* Capacity of heating appliance: (in L/s)

* Please indicate number of hours of current use: (in hrs/week) and future use (in hrs/week)

* Please indicate the average supply temperature: (in degrees Celsius) fixed

variable

* Please indicate the current heating strategy and the one proposed:

* Please indicate what the sequence is for controlling the level of new fresh air and for modulating the temperature of the solar wall:

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Section 7 – Project budget proposed for the solar preheating system

Please complete the table below and give the cost, before taxes, for each expenditure item.

| Components of solar air preheating system | | | |
|--|------------------------------|----------|---|
| | Cost \$ (excluding taxes) | Comments | Datech (Cost estimated by Énergir ⁶) |
| Cost of collectors | | | |
| * Solar collectors, supports and fans | | | |
| * Ducts and insulation of ducts connecting the collectors with the auxiliary heating system at the interface | | | |
| * Dampers | | | |
| Other (please specify) | | | |
| * Number of control points: _____ | | | |
| Sub-total | | | |
| Cost of destratification | | | |
| * Destratification fan | | | |
| * Destratification ducts | | | |
| Other (please specify) | | | |
| * Number of control points: _____ | | | |
| Sub-total | | | |
| Other | | | |
| * Controller for the solar preheating system | | | |
| * Modifications to process to convert it to solar preheating | | | |
| Total cost of equipment | | | |
| Project implementation costs | | | |
| * General expenses | | | |
| * Engineering expenses | | | |
| Other (please specify) | | | |
| Sub-total | | | |
| Total cost of project without destratification | | | |
| Total cost of project | | | |
| Total cost of system by cubic metre | | | |
| For new construction projects | | | |
| Costs avoided by using the solar collector for the building's exterior cladding | | | |

For new construction projects

Type of cladding the solar collector is replacing (brick, stone, acrylic stucco, engineered or natural wood, etc.):

Surface area of the building's exterior cladding replaced by the solar wall: m²

Complete the blank cells edged in blue

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⁶ Énergir reserves the right to review eligible costs.

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Section 8 – Calcul de la PRI

Price of natural gas

* Average over last 12 months: \$ _____/m³

| Annual natural gas savings – Section 4 (m ³) | Annual saving (\$) | Total cost of project – Section 7 (\$) | Payback period ⁶ without grant (years) | Datech |
|--|--------------------|--|---|--------|
| | | | | |

The participant agrees that Énergir may share information with external organizations. The participant also agrees that Énergir may revise the amount of financial assistance to take into account any external financial aid received, or to be received.

Complete the blank cells edged in blue



⁶ Simple return on investment, excluding variations in the price of energy.

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Section 9 – Information about financial contribution from other organizations

The customer declares hereunder the financial assistance received, or expects to receive, from another organization for the solar preheating system.

| Name of organization | Name of grant | Amount (\$) |
|----------------------|---------------|-------------|
| | | |
| | | |
| | | |

The participant agrees that Énergir may share information with external organizations. The participant also agrees that Énergir may revise the amount of financial assistance to take into account any external financial aid received, or to be received.

Declaration

I, the undersigned, (the “customer”), hereby wish to inform Énergir of my intention to install a solar preheating system at the facilities situated at the address indicated on this form. The participant understands that, in order to benefit from this Grant, the simulation must respect the eligibility criteria and all the terms and conditions of the Grant, as described in the *Participant’s Guide*.

The participant acknowledges having noted the eligibility criteria and all the Grant’s terms and conditions, as described in the *Participant’s Guide*, and confirms his/her respect of those terms and conditions.

The participant declares that the information provided in all the documents submitted in connection with his/her participation in this Grant is accurate and complete. The participant acknowledges that any false declaration may lead to a full repayment of the financial assistance awarded by Énergir.

Please submit the following documents:

- Results of enclosed simulation as well as computer files to energyefficiency@energir.com.
- Estimates and quotes.
- Detailed diagrams of the preheating system supplied by solar energy.

* Name of customer:

* Company:

* Signature:

* Signed the:

day / month / year

Complete the blank cells edged in blue

By e-mail:
energyefficiency@energir.com

SEND

By mail:
Énergir
Energy Efficiency Programs
1717 du Havre
Montréal, QC H2K 2X3

By fax:
514 598-3700

PRINT

