State of New Hampshire
Public Utilities Commission
21 S. Fruit Street, Suite 10, Concord, NH 03301-2429

STEP 1: INCENTIVE PRE-APPROVAL APPLICATION

FOR NON-RESIDENTIAL SOLAR THERMAL[1] AND SOLAR ELECTRIC SYSTEMS up to 100 KW or 100 KW EQUIVALENT

- System must become operational on or after November 1, 2010.
- Pre-approval will reserve your place in the funding queue. Once the facility has been installed at the site, applicant must then complete Step 2 by submitting a **final incentive request form.**
- The incentive pre-approval expires 9 months from the date this application is pre-approved and funding is reserved.
- When all available program funding has been reserved for approved projects, applicants that meet all program and project requirements will be placed on a waitlist. Projects placed on the waitlist are not guaranteed funding.

*****Because this application requires original signatures, no electronic copies will be accepted*****

Please submit application and all associated documents to:
Sustainable Energy Division
New Hampshire Public Utilities Commission
21 S. Fruit Street, Suite 10
Concord, NH 03301-2429

PROGRAM ELIGIBILITY, TERMS AND CONDITIONS

1. This program is administered in accordance with RSA 362-F:10 and Puc 2500 (administrative rules). Any applicant requesting an incentive payment for any renewable energy system is responsible for meeting all terms and conditions of the program.
2. You must complete a Final Incentive Request Form (Step 2) to receive your incentive payment.
3. Projects must be located in New Hampshire. Applicant must be a project owner and an end-use customer of a provider of electricity located in New Hampshire, pursuant to Puc 2507.04.
4. The renewable energy system funded under this program must be located on or at the applicant's New Hampshire non-residential entity's building site, which may include a business, non-profit organization, school, governmental or municipal entity, or multi-family residence of 3 units or greater (that has common electric or other energy use that would be offset, at least in part, by the funded system and does not qualify for a rebate under the residential incentive program).
5. Customers of municipal utilities are not eligible for a rebate under this program because municipal utilities are not subject to the NH Renewable Portfolio Standard RSA 362-F and thus do not contribute to program funding directly or indirectly.
6. Any renewable energy system funded under this program is subject to inspection and monitoring by the Commission, the State Fire Marshal and local code authorities or their agents for code compliance and performance in addition to any monitoring prescribed in any interconnection agreement between the electric utility and the owner of the facility.
7. The incentive payment is $1.00 per watt (A/C) for solar electric systems and $0.07/modeled kBtu/year for solar thermal systems and is capped at a maximum of $50,000 or 25% of the total cost of the facility, whichever is less.[2]
8. The incentive payment may be reduced in proportion to the derated estimated annual production that results from non-optimal orientation, tilt, or shading loss. Please refer to Derating Schedule A, here for details.

[1] Solar thermal systems include solar thermal energy for water heating, process heat, and space heat.
[2] kBtu = 1000 Btu.

9. Applicants must show evidence of a completed level II energy audit having been performed on the structures served by the renewable energy system within the previous 5 years prior to receiving the final rebate payment.[3] The Commission strongly recommends that the applicant install the feasible recommended measures resulting from the audit report.

10. The Step 2 Final Incentive Request Form must be submitted after the installation is complete and within 9 months of the date that this incentive pre-approval form is approved and funding for the project is reserved. Applicants may submit both forms together if the installation is already complete but the incentive payment is conditioned on meeting the requirements listed herein.

11. Incentives are subject to the availability of funds received by the Commission under RSA 362-F and appropriated by the legislature. Complete applications will be processed in the order in which they are received. Applications that meet all program requirements will be approved as such. In a separate step by the Commission, funding will be reserved up to the total amount allocated and on hand for this program, which initially is $1 million. Once all allocated funds are reserved, approved applications will be placed in a funding queue waitlist, again, in the order received and approved. The 9 month deadline for completion of the installation and submission of the Step 2 Form will not be triggered until funding is reserved for the project and the applicant is notified of such. If installation is not complete and the Step 2 Form is not received by the Commission within 9 months of funding reservation, the funding may be released to the next approved applicant in any funding queue waitlist. There is no guarantee that funding will be available when applications are approved.

12. All program requirements and documentation must be complete and submitted in order to receive approval for an incentive payment. Payment of the incentive may be subject to a Commission-authorized third-party inspection of the facility to confirm that the system is operational and consistent with the application.

13. Certain information concerning the performance and effect of this incentive program, including system details, name, address, zip code, and total installed costs of systems installed with program support, may be available to the public and may be publicly posted. Additional information may be released upon official request. Specific personal information in which the applicant has a strong privacy interest, including Social Security number, telephone numbers, and email address will remain confidential to the extent permitted under the NH Right-to-Know law, RSA 91-A.

14. The Commission reserves the right to request system performance data for a period of ten (10) years after issuing the incentive. The incentive recipient is strongly encouraged to install a utility grade electric meter, and/or a Btu output meter, to monitor and record system output. Installation of a utility grade electric meter also qualifies the system for renewable energy certificates pursuant to Puc 2500, the PUC Administrative Rules for the Electric Renewable Portfolio Standard (RSA 362-F).

15. If it is determined that the incentive was obtained fraudulently, the recipient, in addition to other penalties or charges, may be liable to the State of New Hampshire for the entire amount of the incentive.

16. Any incentive received under this program may be treated as taxable income by the IRS. It is the responsibility of the recipient of this incentive payment to consult with his or her tax advisor to determine the correct tax treatment of these payments. Applicants who do not provide their Federal Taxpayer ID, Employer ID, or Social Security number on the Step 2: Final Incentive Request Form will not be eligible for reimbursement.

17. Systems that were installed and became operational before the official commencement date of this program (November 1, 2010) are not eligible for rebates under this program.

18. Shared-ownership projects or projects on leased space will be eligible for this program provided that the building owner gives written consent for the project and/or the building owner is a project partner.

19. An individual project shall not receive rebates or incentives from the state and utility in any combination that exceeds 40% of the total project cost.

20. Expansions of existing systems are eligible for a rebate under this program at a reduced incentive level of $0.50/Watt or $0.04/modeled kBtu/year, up to an overall system size limit of 100 kilowatts.

21. Any installer who fails to complete installations in a workmanlike manner, consistent with generally accepted industry practices and generally free of material defects, including failure to comply with applicable building and fire safety codes, as may be evidenced by an objective third party inspection and evaluation, may be barred from future program participation.

22. The Commission reserves the right to modify the program terms, conditions, or technical requirements when it is deemed to be in the public interest. A history of this program design and future modifications can be found in PUC Docket No. DE 10-212, linked here.

23. In all solar domestic water heating projects, the site shall be occupied, at a minimum, throughout the summer.

[3] A Level II energy audit is an audit that includes thermal imaging of the building envelope and a blower door or other air pressure test with an auditor's report detailing recommended improvement measures and the payback periods of such measures.

24. Incomplete, inaccurate, or ineligible applications with be rejected and removed from the queue.
25. Each installer/installer company may have not more than $200,000 in total project incentives in the pre-approved funding queue at any given time.

Technical Requirements

1. Any renewable energy system must comply with all manufacturers' requirements, installed according to manufacturer's recommendations, and meet all applicable requirements of the State Building Code pursuant to RSA 155-A:1, IV including the National Electric Code 2008 and the International Fire Code.
2. Any interconnection of the renewable energy system with your utility must comply with your Interconnection Agreement, the Puc 900 Net Metering Rules (if applicable), as well as any applicable tariffs governing interconnection.
3. Solar PV systems must have a manufacturer's rated panel output under standard test conditions (STC) of equal to or less than 100 kilowatts and must be certified by a nationally-recognized testing laboratory as meeting the requirements of UL 1703.
4. Systems shall include a labor warranty of no less than five years in order to qualify for a rebate.
5. Solar electric systems greater than 50 kW shall include a revenue grade meter to measure production of the system [and shall include data monitoring through a web-based system].
6. Solar thermal systems with a collector area of 500 sq. ft. or greater shall have an output meter and/or web-based temperature monitoring to measure system performance and shall track performance on a monthly basis, at a minimum.
7. All applicants shall submit: 1) a RETScreen modeling analysis and 2) a system schematic and/or construction drawings.
8. Self-installer labor costs and used equipment are not eligible for inclusion in total system costs.

APPLICANT INFORMATION

Name (Non-residential entity, etc.): _____

Name (Primary applicant contact): _____

Mailing Address: _____

Town/City: _____ State: ____ Zip Code: _____

Installation Address (if different): _____

Town/City: _____ State: ____ Zip Code: _____

Telephone: _____ Cell: _____

Email address: _____

Please list names of other project owners: _____

Is the applicant (entity) the owner of the building site of the project? **YES** ☐ **NO** ☐ *If no, then please attach a copy of the lease agreement and consent of building owner to proceed with this project.*

Entity Type: Business ☐ Non-profit ☐ Public Building ☐ School ☐ Other: _____

Briefly describe your principle business, mission, etc. _____

_____

Electric Distribution Utility: _____

Have you performed an energy audit **YES** ☐ **NO** ☐ and undertaken energy efficiency measures? **YES** ☐ **NO** ☐

INSTALLATION INFORMATION

Anticipated start date: _____ Anticipated month of completion: _____

Will you install the system yourself? **YES** ☐ **NO** ☐

INSTALLER INFORMATION

Installer Name: _____ Company: _____

Mailing Address: _____

Town/City: _____ State: _____ Zip Code: _____

Telephone: (____) ____-_____ Email address: _____

NH Electrician or Plumber license number (please specify, if applicable): _____

ELECTRICIAN

Electrician Name (if different than installer): _____

Company: _____

Mailing Address: _____

Town/City: _____ State: _____ Zip Code: _____

Telephone: (____) ____-_____ Email address: _____

NH Electrician license number: _____

PLUMBER

Plumber Name (if different than installer): _____

Company: _____

Mailing Address: _____

Town/City: _____ State: _____ Zip Code: _____

Telephone: (____) ____-_____ Email address: _____

NH Plumber license number: _____

SOLAR SYSTEM INFORMATION

I. Photovoltaic ☐ **II.** Thermal ☐

I. PHOTOVOLTAIC SYSTEM INFORMATION (SKIP THIS SECTION IF THIS IS A THERMAL SYSTEM)

Panel Manufacturer: _____ Model Number(s): _____

Are the panels UL 1703 listed? **YES** ☐ **NO** ☐ (if No, you are not eligible for an incentive payment.)

FOR TOTAL FACILITY POWER MULTIPLY NUMBER OF PANELS TIMES THE POWER RATING OF EACH AND ADD					
# of Panels					
Power of Panel (DC)					
Total Power					
				Total Facility Power	

Inverter Manufacturer: _____ Model Number(s): _____

Number of Inverters: _____

Will inverters comply with IEEE 1547 and UL 1741? **YES** ☐ **NO** ☐ (if No, you are not eligible for an incentive payment.)

System Mounting: **Roof** ☐ **Ground** ☐ **Pole** ☐

This system is: **fixed-mount** ☐ **single-axis tracking** ☐ **dual-axis tracking** ☐

I. PHOTOVOLTAIC SYSTEM: ANNUAL ENERGY PRODUCTION INFORMATION (SKIP IF THERMAL)

Note: The applicant must provide a detailed site map that clearly illustrates all obstructions and their respective heights and distances from the system as well as panoramic photos of the horizon taken from the installation location from due east through south to due west. A shading analysis and RETScreen must also be provided.

1. Total System Power (A/C): _____ kW
2. Rated A/C Annual Production (show calculation): _____ kWh
3. Percent loss from non-optimal orientation: _____% (Please refer to Derating Schedule A)

   Azimuth (180º=true south): _____ degrees Tilt (horizontal=0º) = _____ degrees
4. Percent loss from shading: _____%
5. Modeled Annual Production with Shading and orientation loss: _____ kWh

II. SOLAR THERMAL SYSTEM INFORMATION (SKIP THIS SECTION IF THIS IS A PV SYSTEM)

Collector Manufacturer: _____ Model No. _____ # of Collectors: _____

Type of SRCC Rating: **OG100** ☐ O**G300** ☐

Collector SRCC Rating (kBtu/day using Mildly Cloudy C category): _____

Storage Tank Manufacturer: _____ Model No. _____

Capacity of Storage Tank (gallons): _____# of Storage Tanks:_____

Control Panel Manufacturer: _____ Model No. _____

Circulation Pump Manufacturer: _____ Model No. _____

Type of system: Drainback w/ water☐ Drainback w/ antifreeze☐ Closed loop☐ Other _____

What is the solar fraction of the system?[4] _____

Briefly describe the existing water heating/space system (include fuel source, direct/indirect, and tank size)?

_____

II. THERMAL SYSTEM: ANNUAL ENERGY PRODUCTION INFORMATION (SKIP IF PV)

Note: The applicant must provide a detailed site map that clearly illustrates all obstructions that will shade the system and their respective heights and distances from the system as well as panoramic photos of the horizon taken from the installation location from due east through south to due west. A shading analysis and RETScreen must also be provided.

1. Rated Annual Production (show calculation): _____ MMBtu
2. Percent loss from non-optimal orientation: _____% (Please refer to Derating Schedule A)

   Azimuth (180º=true south): _____ degrees Tilt (horizontal=0º) = _____ degrees
3. Percent loss from shading: _____%
4. Modeled Annual Production with Shading and orientation loss: _____ kWh (MMBtu)[5]

[4] Solar Fraction is a ratio of the hot water generated from the system to the hot water needs of the site.
[5] 1 kWh = 3400 Btus

PROJECT PERMITTING AND BUDGET

List all required permits for this project and whether the permit has been acquired (if none are required, please explain): _____

_____

_____

Please include an estimated project budget:

Labor	$
Collectors or Modules	$
Inverters (if applicable)	$
Other equipment (tank, pumps, controller, piping, etc.)	$
Total	$

REQUIRED ATTACHMENTS

These items (copies) must be attached to the application:	Attached
1. Signed contract or project agreement with installer	☐
2. Detailed site map/sketch	☐
3. Panoramic photos of the installation site	☐
4. Quantified shading analysis showing calculation or modeled results	☐
5. RETScreen modeling analysis including estimated actual annual production	☐
6. System schematic and/or construction drawings	☐
7. One copy of all energy utility bills from no more than 18 months previous to submission date	☐

Note: In the final incentive request form you will be expected to provide paid invoices, an interconnection agreement with your electric utility (for PV systems, unless the PV system is off-grid), pictures of the installation, and documentation that the system is UL certified and has been inspected by a local building code official or NH licensed electrician or plumber, unless the installation team includes a NH licensed electrician or plumber (where applicable to PV or thermal systems).

INCENTIVE CALCULATION

1. Total Facility Cost (less any self-installer labor costs and used equipment costs): _____
2. System Output (Use modeled, or calculated annual production number from above): _____
3. PV: System Capacity (A/C) X $1.00/Watt = _____ ($0.50/Watt for system expansions)
4. Thermal: System Output X $0.07/kBtu/year = _____ ($0.04/kBtu/year for system expansions)
5. Total Requested Incentive: _____

For Line 5 enter **25% of line 1** *or* **100 % of line 3** *or* **$50,000**, whichever is less ($50,000 max).

For questions regarding this rebate program, please visit http://www.puc.nh.gov/Sustainable%20Energy/RenewableEnergyRebates.htm or email Kate Epsen.

DECLARATION OF APPLICANT

The Undersigned applicant declares under penalty of perjury that:

1) the applicant intends to purchase and install the renewable energy system described in this application;
2) the applicant has read and understands the terms and conditions set forth in this application with attachments and has agreed to abide by those requirements;
3) the information provided in this form is true and correct to the best of his or her knowledge; and,
4) the applicant agrees that the system and documents supporting the application may be audited and inspected by the Commission.

Applicant's Signature _____ Date: _____
Only one signature needed per entity.

County of _____

State of _____

Subscribed and sworn before me this ____(day) of _____ (month) in the year _____

_____
Notary Public/Justice of the Peace
My Commission expires _____

INSTALLER CERTIFICATION

The Undersigned installer declares under penalty of perjury that:

1) The system and its associated materials will be installed according to generally accepted design and installation principles and practices that best support optimal energy production and lifespan of the system.

Installer's Signature _____ Date: _____
Only one signature needed per installer.

County of _____

State of _____

Subscribed and sworn before me this ____(day) of _____ (month) in the year _____

_____
Notary Public/Justice of the Peace
My Commission expires _____