

**STATE OF NEW HAMPSHIRE
PUBLIC UTILITIES COMMISSION**

DE 09-054

**Residential Renewable Energy Generation
Incentive Program**

Order Approving Application for Installed Facilities

ORDER NO. 24,985

July 14, 2009

I. PROCEDURAL BACKGROUND

On April 17, 2009, the Commission issued an order of notice opening a proceeding to establish an application process for a residential renewable generation facility incentive payment program. Pursuant to RSA 362-F:10, V, the Commission shall make and administer a one-time incentive payment to a residential owner of a small renewable generation facility of \$3 per watt of generation capacity, up to a maximum payment of \$6,000, or 50 percent of the system costs, whichever is less. The order of notice included a web link to a draft application form.

Pursuant to the order of notice, a technical session was held at the Commission offices on May 15, 2009. In response to the technical session Staff filed and posted on the Commission website a revised draft incentive application form specific to generation facilities installed between July 1, 2008, the first date a residential facility would be eligible for an incentive, and August 31, 2009. The Office of Consumer Advocate (OCA) filed a letter on May 22, 2009 indicating that it would be participating on behalf of residential ratepayers pursuant to RSA 363:28. Also on May 22, 2009, Staff filed comments it had received electronically from members of the public. A public comment hearing was held on May 26, 2009. The OCA

provided written comment on June 4, 2009. On June 1, June 11 and June 24, 2009, Staff filed additional comments received from the public.

II. COMMENT AND RESPONSE

Size Limitation

Some comments related to the fact that the incentives are limited to facilities with a rated maximum output of less than 5 kilowatts. While we appreciate the comments that the limit seems to “penalize” larger installations, the 5 kilowatt limit is a statutory requirement. Once we have some experience with this program, we will be in a position to evaluate whether there is merit in asking the Legislature to change this limit or to create a separate incentive or rebate program for larger systems pursuant to RSA 362-F:10, VIII and N.H. Code Admin. R. Puc 2507.03(f). Pursuant to RSA 362-F:10, IX, until January 1, 2011, we are prohibited from extending this particular incentive program to installations of 5 kilowatts or greater.

Thermal Eligibility

Several parties questioned why solar thermal installations are not eligible for incentives. A plain reading of the statute excludes solar thermal installations from the incentive created by RSA 362-F:10, V. The pertinent section is as follows:

The public utilities commission shall make and administer a one-time incentive payment of \$3 per watt of nominal generation capacity up to a maximum payment of \$6,000, or 50 percent of system costs, whichever is less, per facility to any residential owner of a small renewable generation facility, that would qualify as Class I or Class II source of electricity, has a total peak generation capacity of less than 5 kilowatts, begins operation on or after July 1, 2008, and is located on or at the owner’s residence. (emphasis added)

To be eligible for the incentive, the facility must generate electricity and be a Class I or Class II source within the meaning of RSA 362-F. While solar hot water heating systems that displace electric use are included in the definition of a Class I source, such systems are not a

Class I “source of electricity,” nor do they “generate” electricity. Therefore, solar thermal installations are not eligible for the incentive.

During the Legislature’s deliberation of House Bill (HB) 1628, the legislation that became RSA 362-F:10, V through IX, the eligibility of solar thermal for the incentive program was specifically discussed. According to the transcript of the hearing on HB 1628 before the Senate Energy, Environment and Economic Development Committee, Rep. Mike Kaelin, the prime sponsor of the bill, stated in response to a question from the Chair about whether the bill included thermal: “No. This is for electrical generation, which doesn’t include thermal.” Because the House passed version of this bill did not provide an incentive for renewable thermal systems, the Commission suggested to the Senate Committee the addition of a provision that would clearly allow us to create a separate incentive program for solar thermal installations. The result is RSA 362-F:10, VIII which reads as follows:

The commission may, after notice and hearing, by order or rule, establish additional incentive or rebate programs for customer-sited thermal and renewable energy projects.

We intend to use this authority to establish an incentive program for solar thermal installations and other qualified thermal and renewable energy projects. When we establish this new incentive program, we will consider any comments we may receive regarding the merits of offering the incentive on a retroactive basis back to July 1, 2008.

Additions

We received several comments suggesting that the incentive should apply to additions to existing generation facilities, instead of limiting the incentive to owners of newly installed facilities. We agree that there is nothing in the statute which would disqualify additions from eligibility for the incentive payment provided that those additions have an output of less than 5

kilowatts and first began operation on or after July 1, 2008. Therefore, additions of less than 5 kilowatts of power to existing facilities that have not received an incentive payment under this program will be eligible for an incentive payment provided the facility meets all the other conditions in the application.

Used Equipment

The OCA suggested that applicants be allowed to receive credit for used equipment. We have determined that used parts will not be eligible for an incentive payment because used equipment has an uncertain useful life and will likely not be covered by manufacturers' warranties. In addition, RSA 362-F:10 requires that the facility first begin operation on or after July 1, 2008, clearly implying that it is new. Lastly, with used equipment there is always the possibility that a prior owner already received an incentive payment under this or a different incentive program.

Fund Availability

We received several comments expressing concern about the limited funds available for the incentive program and inquiring how we would deal with a backlog of applications. We note that, at the time of the hearing, the statute stated that only 10 percent of the money available in the renewable energy fund could be used for this incentive program. This limitation was been removed by the Legislature with the passage of HB 229 (2009 N.H. Laws Ch. 86) which was signed into law and became effective on June 10, 2009. As a result we may allocate money from the renewable energy fund for the incentive payment program as we may determine. Our intention is to use this discretion to provide the incentive payment to owners of installed facilities who file an application to the extent money is available in the renewable energy fund, at least until such time as other incentive programs are established, such as a solar thermal program, in

which case there may need to be some shared allocation of the overall fund. We also note that with alternative compliance payments made into the fund at the end of June and the first of July, the total fund balance available for incentive and rebate payments, renewable energy initiatives, and administrative costs over the next year is now \$4,479,379.17.

Waiting List

We also heard comments that we should clarify our waiting list policy. To address this concern, we have modified what had been paragraph 3 of Appendix A: Terms and Conditions and is now paragraph 15 of Section 1: Terms and Conditions to read as follows: “Completed applications received through 7/31/09 will be processed by the date the facility first began operation with the oldest systems processed first. Completed applications received after 7/31/09 will be processed in the order in which they are received.” As noted below, we will also be developing a two step application process for facilities that begin operation after September 30, 2009, in which an applicant for a proposed project reserves a place in the funding queue as a first step upon filing a completed application.

Payments to Installers

Some installers suggested that we should allow payments to be made directly to the installer in circumstances where the residential owner is waiting for the incentive payment to make the final payment to the installer. The statute requires that the payment be made to the “residential owner” and, consequently, we have no authority to pay the installer. Nonetheless, installers and homeowners are free to make payment terms to their mutual agreement and, therefore, we do not consider directing the payment of the incentive to the homeowner as a barrier to installation of residential renewable energy facilities.

On a related issue, we eliminated the requirement that the applicant provide proof of payment to the installer for systems that begin operation on or before September 30, 2009. We understand that, as a practical matter, the recipient of an incentive award may use the proceeds as the final payment to the facility installer. Eliminating the production of proof of payment by the applicant may facilitate such arrangements. We will revisit this proof of payment issue for systems installed after September 30, 2009.

Self Installers

Some comments sought clarification that persons who install their own facility would be eligible for an incentive payment. We have amended the application to make it clear that facilities installed by the owner, subject to compliance with codes and other requirements, are eligible for the incentive payment.

Wind Systems

With respect to wind installations, we received a recommendation that we select a wind speed by which to rate all systems and several comments regarding the need for a wind study for such installations. In response to these comments, we have modified the application to require an output rating at a wind speed of 11 meters per second (24.6 miles per hour) for all wind installations as a condition for receiving an incentive payment (or, if the manufacturer does not provide an output rating at such a speed, the next closest wind speed for which an output rating is provided). We will consider requiring a wind study for proposed wind installations.

Solar Standards

We also received a recommendation that we set specific performance standards for solar installations. We agree that requirements of orientation, tilt and shading will assure the best performance from solar panels, and we intend to apply performance standards to new

installations. However, we do not intend to place performance standards on facilities that begin operation from July 1, 2008 through September 30, 2009 as a condition for incentive payment. To do so would apply a technical standard on a retroactive basis without fair notice to homeowners who may have installed eligible facilities based on only the statutory requirements.

Term of Operation

One party questioned the requirement in proposed Appendix A, Terms and Conditions, that would require the facility to remain operational for 10 years as a condition to receiving the incentive payment. We have considered this comment and understand that, while we want to avoid giving an incentive payment for a short-lived generation system, this provision would impose unknown burdens on homeowners for situations beyond their control, such as construction adjacent to their property, and would be problematic for homeowners seeking to sell their property. Therefore, we eliminated this requirement.

Application Deadline

The OCA suggested that a deadline be set for the filing of applications. We have established a filing deadline of December 31, 2009 for applications regarding facilities that begin operation from July 1, 2008 through September 30, 2009.

Net Metering

The OCA recommended that the application include a question as to whether the facility would be net metered. A question has been added to elicit whether applicants' facilities are net metered.

Two-Step Process

Several parties recommended that we institute a two-step application process for renewable facilities. In the first step, applicants would be pre-approved for an incentive payment

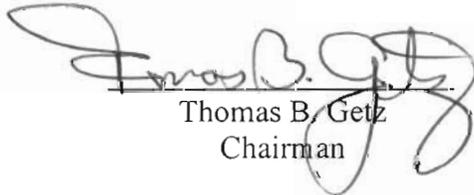
for a proposed installation. The applicant would then receive an incentive payment upon completion of the second step, that is, demonstration that the facility is installed and operating and meets all applicable requirements. We agree that a two-step process is appropriate for future installations and intend to adopt such a process for installations that begin operation after September 30, 2009.

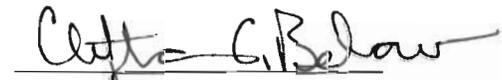
We have incorporated other minor suggestions into the final application form but do not further explain them here. A copy of the approved application form for eligible facilities that begin operation starting July 1, 2008 through September 30, 2009 is attached to this order. A two step application form for facilities that begin operation after September 30, 2009 will be forthcoming in a subsequent order in this Docket.

Based upon the foregoing, it is hereby

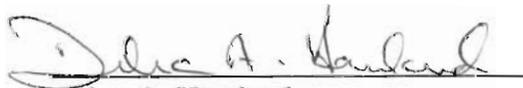
ORDERED, the application process for incentive payments for small residential renewable electricity systems that begin operation from July 1, 2008 through September 30, 2009 pursuant to RSA 362-F:10,V as described by this order and in the attached application form is hereby APPROVED.

By order of the Public Utilities Commission of New Hampshire this fourteenth day of July, 2009.


Thomas B. Getz
Chairman


Clifton C. Below
Commissioner

Attested by:


Debra A. Howland
Executive Director & Secretary



STATE OF NEW HAMPSHIRE
PUBLIC UTILITIES COMMISSION
21 S. Fruit Street, Suite 10, Concord, NH 03301-2429



APPLICATION for REBATE PAYMENT

FOR INSTALLED RESIDENTIAL SMALL RENEWABLE GENERATION SYSTEMS LESS THAN 5 KILOWATTS

This incentive application is only for those renewable systems that began operation on or after July 1, 2008 through September 30, 2009. No applications for systems installed on or before September 30, 2009 will be accepted after December 31, 2009. Anyone planning to install a small renewable energy system (or “facility”) after September 30, 2009 will be required to use a separate application and obtain the Commission’s pre-approval of the system, prior to installation, in order to be eligible for an incentive payment.

Applications submitted electronically will not be accepted.

Please read Section A carefully prior to completing the form.

SECTION A: TERMS AND CONDITIONS

1. This program is administered in accordance with RSA 362-F:10 and Puc 2500. Any applicant requesting an incentive payment (or “rebate”) for any renewable energy system is responsible for meeting all terms and conditions of the program.
2. To be eligible for the one-time incentive payment, an applicant must be a New Hampshire homeowner of a small renewable energy electrical generation system, such as a wind turbine or solar electric panels, that would also qualify as a Class I or Class II source of electricity in accordance with RSA 362-F and Puc 2500.
3. Solar hot water systems are not eligible under this incentive program.
4. The payment of the incentive is conditioned upon confirmation that the renewable system is operational which may include PUC inspection of the facility.
5. If the system is a photovoltaic (PV) system, it must have a manufacturer’s rated panel output under standard test conditions (STC) of less than 5 kilowatts and be located on or at the owner’s residence.
6. If the system is a wind turbine, it must have a manufacturer’s rated maximum output of less than 5 kilowatts measured at a wind speed of 11 meters per second (24.6 mph) or if the manufacturer does not rate their system at that speed, the closest speed at which the manufacturer rates the output.
7. Any renewable system must comply with manufacturers’ requirements.
8. Any renewable system must meet all applicable requirements of the State Building Code pursuant to RSA 155-A:1, IV including the National Electric Code 2008.
9. All PV modules must be certified by a nationally-recognized testing laboratory as meeting the requirements of UL 1703.
10. Any interconnection of the renewable system with your utility must comply with your Interconnection Agreement, the Puc 900 Net Metering Rules and any applicable tariffs governing interconnection.
11. Any renewable system is subject to inspection and monitoring by the PUC, the State Fire Marshal and local code authorities or their agents for safety and performance in addition to any monitoring prescribed in any interconnection agreement between the electric utility and the owner of the facility.
12. Incentives are capped at a maximum of \$3.00 per watt to a maximum of \$6,000.00 or 50% of the total cost of the facility, whichever is less.

13. Incentives are available only for new equipment installed in new facilities, which may be an addition to an existing system that has not previously qualified for an incentive under this program.
14. Incentives are subject to the availability of funds through the PUC. All program requirements and documentation must be complete and submitted in order to receive approval for an incentive payment.
15. Completed applications received through 7/31/09 will be processed by the date the facility first began operation with the oldest systems processed first. Completed applications received after 7/31/09 will be processed in the order in which they are received.
16. Certain information, including system details, zip code, and total installed costs of systems installed with program support, will be available to the public and may be publicly posted. Additional information may be released upon official request. Specific personal information including Social Security numbers, name and street or mailing address (but not town or zip code) will remain confidential to the extent permitted under state law.
17. The PUC reserves the right to request system performance data for a period of ten (10) years after receipt of the incentive. The incentive recipient is encouraged to install a utility grade electric meter to monitor and record system output.
18. The incentive recipient may be liable to the State of New Hampshire for the entire amount of the incentive if the PUC or its agent determines that the incentive was obtained fraudulently.
19. 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/her tax advisor to determine the correct tax treatment of these payments.

NOTE: When completing this application electronically, use the "tab" key to move the cursor to the next blank.

SECTION B: APPLICANT INFORMATION

1. Applicant's Name: _____
2. Mailing Address: _____
3. Town/City: _____ State: _____ Zip Code: _____
4. Street Address (if different): _____
5. Town/City: _____ State: _____ Zip Code: _____
6. Telephone: _____
7. E-mail address: _____
8. Social Security Number: _____
9. Electric utility serving this location: _____
10. Do you net meter output? Yes No

SECTION C: INSTALLATION INFORMATION

1. Is the renewable energy system located at your residence? Yes No
(if No, you are not eligible for an incentive payment under this program)
2. The renewable energy system is: Electric Grid Connected Off Grid
3. Date the renewable energy system became operational: _____
4. Did you install the system yourself? Yes No

If Yes, please initial here indicating that you are requesting a waiver of the requirement that you must provide a signed contract with a primary installer or vendor.

Initial _____

Installer:

- 5. Name: _____
- 6. Company: _____
- 7. Mailing Address: _____
- 8. Town/City: _____ State: _____ Zip Code: _____
- 9. Telephone: _____
- 10. E-mail address: _____
- 11. NH Electrician license number (if applicable): _____

Electrician (if different than installer):

- 12. Name: _____
- 13. Company: _____
- 14. Mailing Address: _____
- 15. Town/City: _____ State: _____ Zip Code: _____
- 16. Telephone: _____
- 17. E-mail address: _____
- 18. NH Electrician license number: _____

SECTION D: SYSTEM INFORMATION:

- 1. Photovoltaic Wind Other
- 2. Is this an expansion of an existing system that has received a rebate under this program? Yes No
(if Yes, you are not eligible for an incentive payment under this program)
- 3. Did this system begin operation on or after July 1, 2008? Yes No
(if No, you are not eligible for an incentive payment under this program)
- 4. Were all major components purchased new (i.e., not used)? Yes No
(if No, subtract the cost of used items from the Installed System Cost below)
- 5. Have you installed a revenue grade meter that separately measures your system's electrical output? Yes No

Photovoltaic System:

- 6. Photovoltaic Panel Manufacturer(s): _____
- 7. Are the Panels UL 1703 listed? Yes No
(if No, you are not eligible for an incentive payment under this program)
- 8. Total Number of Panels: _____ Power Rating for next line is in DC Watts under Std. Test Conditions (STC)

Use the following example to complete numbers 9 & 10 below: For a system with 10 panels at 180 watts each and 2 panels at 125 watts, Total Array Output is 2,050 watts (which is 2.05 kW or kilowatts).
 (Number of) and Power Rating of Each Panel Type (10) @ 180 + (2) @ 125 = 2,050 Total Array Output

- 9. (Number of) and Power Rating of Each Panel Type: (_____) @ _____ + (_____) @ _____ + (_____) @ _____ + (_____) @ _____ = _____
- 10. Total Array Output: _____ DC Watts (Sum of Power Rating for all panels in the system)

- 11. Number of Inverters: _____
- 12. Inverter Manufacturer(s): _____
- 13. Inverter Model Number(s): _____
- 14. Do inverters comply with IEEE 1547 and UL 1741? Yes No
 (if No, you are not eligible for an incentive payment under this program)
- 15. The system is mounted on: a Roof the Ground a Pole

Wind System:

- 16. Wind Turbine Manufacturer: _____
- 17. Turbine Model Number: _____
- 18. Manufacturer’s Power Rating of Turbine at 11 meters/second or 24.6 mph: _____ Watts
- 19. Tower Manufacturer: _____
- 20. Tower Model Number: _____
- 21. Tower Height: _____ Height above tree line: _____
- 22. Tower Type: Single Pole Guyed
- 23. Inverter Manufacturer: _____
- 24. Inverter Model Number: _____
- 25. Is the inverter compliant with IEEE 1547 and UL 1741 listed? Yes No
 (if No, you are not eligible for an incentive payment under this program)
- 26. Number of Inverters: _____
- 27. Describe or attach wind study or analysis (if any): _____

Other Renewable Electric Energy System:

Please contact Jon Osgood at jon.osgood@puc.nh.gov or (603) 271-2431 for additional information.

SECTION E: ATTACHMENTS REQUIRED

These items (copies) must be attached to this application

- 1. Signed contract with installer(s) (if applicable) Attached
- 2. Invoice(s) indicating total costs for parts and labor Attached
- 3. Interconnection agreement (unless off-grid) Attached
- 4. Building permit or other documentation that the facility meets local zoning regulations Attached
 (if none, please explain) _____
- 5. Documentation that the installed system has been inspected by a local building code official or a NH licensed electrician Attached

SECTION F: INCENTIVE CALCULATION (MAXIMUM \$6,000)

- 1. Total Facility Cost (less any self-installer labor costs): _____
- 2. System output (from Section D line 10 or 18): _____ Watts

- 3. Incentive Calculation: Total Array Output x \$3.00/Watt = _____
- 4. Total Requested Incentive: _____
 For Line 4 enter **50% of line 1** above, *or* **100 % of line 3** above, *or* **\$6,000**, whichever is less (\$6,000 maximum).

NOTE: Rebate will be issued only after application is judged complete and accurate and confirmation that the system is operating consistent with the application, subject to inspection by the PUC or its agent.

SECTION G: DECLARATION

The Undersigned applicant declares under penalty of perjury that:

- 1) 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;
- 2) the information provided in this form is true and correct to the best of his or her knowledge;
- 3) the applicant understands that program funds are limited and, as a result, there may be a delay in issuing the incentive payment based on the queue position of the applicant; and
- 4) the applicant agrees that the system, interconnection and documents supporting the application may be audited and inspected by the Commission.

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

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

County of _____

State of _____

Notary Public/Justice of the Peace
My Commission expires _____

For questions regarding this rebate program, see the incentive program FAQ section at <http://www.puc.nh.gov/Sustainable%20Energy/RenewableEnergyRebatesQAs-residential.htm> or contact Jon Osgood at jon.osgood@puc.nh.gov or (603) 271-2431.

Please submit application and all associated documents to:

New Hampshire Public Utilities Commission
Sustainable Energy Division
21 S. Fruit St, Suite 10
Concord, NH 03301-2429

Applications submitted electronically will not be accepted.