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.

<u>Used Equipment</u>

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. Competed 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

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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.

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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 <u>INSTALLED</u> 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	
Applications	Submitted	electronically	44 I I I	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 <u>less than</u> 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 <u>less than</u> 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.

Yes \square

No

Initial ____

- 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 Applicant's Name: 1. Mailing Address: State: _____ Zip Code: _____ 3. Town/City: Street Address (if different): Town/City: _____ State: ____ Zip Code: _____ 5. Telephone: 6. 7. E-mail address: 8. Social Security Number: 9. Electric utility serving this location: No \square 10. Do you net meter output? Yes SECTION C: INSTALLATION INFORMATION Yes No Is the renewable energy system located at your residence? (if No, you are not eligible for an incentive payment under this program) Electric Grid Connected Off Grid 2. The renewable energy system is: Date the renewable energy system became operational:

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

Did you install the system yourself?

installer or vendor.

Ins	taller:			
5.	Name:			
6.	Company:			
7.	Mailing Address:			
8.	Town/City:	_ State:	Zip Code:	
9.	Telephone:			
10.	E mail addraga:			
11.	NH Electrician license number (if applicable):			
Ele	ctrician (if different than installer):			
12.	Name:			
13.	Company:			
14.	Mailing Address:			
15.	Town/City:	~	Zip Code:	
16.	Telephone:			
17.	E-mail address:			
18.	NH Electrician license number:			
SEC	CTION D: SYSTEM INFORMATION:			
1.	Photovoltaic Wind	Other		
2.	Is this an expansion of an existing system that under this program?	t has received a rebate	Yes	No 🗌
	(if Yes, you are not eligible for an incentive payment t	inder this program)		
3.	Did this system begin operation on or after Ju	ly 1, 2008?	Yes	No 🗌
1	(if No, you are not eligible for an incentive payment u		V	No.
4.	Were all major components purchased new (i (if No, subtract the cost of used items from the Installe		Yes	No 📙
5.	Have you installed a revenue grade meter tha		Yes \square	No 🗍
٥.	your system's electrical output?	sopuratory measures	105	ПО
Pho	tovoltaic 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 und	der this program)		
8.	Total Number of Panels: Power Ratin	g for next line is in DC W	atts under Std. Test C	onditions (STC)
Use	the following example to complete numbers 9	& 10 below: For a sy	stem with 10 pane	els at 180
wat	ts each and 2 panels at 125 watts, Total Array O	utput is 2,050 watts (v	which is 2.05 kW	or kilowatts).
(Nun	nber of) and Power Rating of Each Panel Type (10)	@ 180 + (2) @ 125	= <u>2,050</u> Total Arra	ay Output
 9.	(Number of) and Power	+()@	+(@ +
- •	(Number of) and Power () @ Rating of Each Panel Type: () @	+()@ -	+()	@ =
10.	Total Array Output:	OC Watts (Sum of Powe	er Rating for all panels	s 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		
Wi	nd System:		
16.	Wind Turbine Manufacturer:		
17.	Turbine Model Number:		
18.	Manufacturer's Power Rating of Turbine at 11 meters/second or 24.6 mph:	W	Vatts
19.	Tower Manufacturer:		
20.	Tower Model Number:		
21.	Tower Height: Height above tree line:		
22.	Tower Type: Single Pole Guyed 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):		
Plea	ner Renewable Electric Energy System: ase contact Jon Osgood at jon.osgood@puc.nh.gov or (603) 271-2431 for additional CTION E: ATTACHMENTS REQUIRED	information.	
SE			
The	se items (copies) must be attached to this application		
1.	Signed contract with installer(s) (if applicable)	Attached Attached	
2.	Invoice(s) indicating total costs for parts and labor		Ц
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	
SE	CTION 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	

		. o		
3.	Incentive Calculation: Total Array	Output x \$3.00/Watt =		
4.	Total Requested Incentive:			
	For Line 4 enter 50% of line 1 above, or		\$6,000 , whichever is less (\$6,000 maximum	1).
	TE: Rebate will be issued only after application, so		and accurate and confirmation that the syse PUC or its agent.	tem
SEC	CTION G: DECLARATION			
The	has agreed to abide by those requirements; 2) the information provided in this form 3) the applicant understands that program incentive payment based on the queue pos	s the terms and conditions s ; is true and correct to the be n funds are limited and, as a ition of the applicant; and	et forth in this application with attachments a st of his or her knowledge; a result, there may be a delay in issuing the nts supporting the application may be audited	
Δnn	olicant's Signature		Date:	
	one signature needed per household			
Sub	scribed and sworn before me this	(day) of	(month) in the year	
Cou	enty of			
State	e of			
		Notary Public/Just My Commi	ice of the Peace ssion 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.

CAROLYN A DEMOREST NEW HAMPSHIRE SUSTAINABLE ENE 54 PORTSMOUTH ST CONCORD NH 03301 ERIC STELTZER
OFFICE OF ENERGY AND PLANNING
4 CHENELL DRIVE
CONCORD NH 03301

MARK F FRASER
PUBLIC SERVICE COMPANY OF NEW H
PO BOX 330
MANCHESTER NH 03105-0330

KEN E TRAUM OFFICE OF CONSUMER ADVOCATE 21 SOUTH FRUIT ST STE 18 CONCORD NH 03301-2429

MEREDITH A HATFIELD OFFICE OF CONSUMER ADVOCATE 21 SOUTH FRUIT ST STE 18 CONCORD NH 03301 MARK WEISSFLOG KW MANAGEMENT INC 7 TREMONT ST WILTON NH 03086

DAVID LARSON NATIONAL GRID 25 RESEARCH DR WESTBOROUGH MA 01582

MARLA B MATTHEWS
GALLAGHER CALLAHAN & GARTREL
214 N MAIN ST
CONCORD NH 03301

HOWARD M MOFFETT ORR & RENO PA 1 EAGLE SQ PO BOX 3550 CONCORD NH 03302

THOMAS PALMA NEW HAMPSHIRE ELECTRIC COOPER 579 TENNEY MT HWY PLYMOUTH NH 03264

LAURA S RICHARDSON OFFICE OF ENERGY AND PLANNING 4 CHENELL DR CONCORD NH 03301

Docket #: 09-054 H

Printed: July 15, 2009

FILING INSTRUCTIONS: PURSUANT TO N.H. ADMIN RULE PUC 203.02(a),

WITH THE EXCEPTION OF DISCOVERY, FILE 7 COPIES (INCLUDING COVER LETTER) TO:

DEBRA A HOWLAND EXEC DIRECTOR & SECRETARY NHPUC 21 SOUTH FRUIT STREET, SUITE 10 CONCORD NH 03301-2429

PURSUANT TO N.H. ADMIN RULE 203.09 (d), FILE DISCOVERY

DIRECTLY WITH THE FOLLOWING STAFF

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MAUREEN RENO NHPUC 21 SOUTH FRUIT ST, SUITE 10 CONCORD NH 03301-2429

JACK RUDERMAN NHPUC 21 SOUTH FRUIT ST, SUITE 10 CONCORD NH 03301-2429

AMANDA NOONAN CONSUMER AFFAIRS DIRECTOR NHPUC 21 SOUTH FRUIT ST, SUITE 10 CONCORD NH 03301-2429

BULK MATERIALS:

Upon request, Staff may waive receipt of some of its multiple copies of bulk materials filed as data responses. Staff cannot waive other parties' right to receive bulk materials.

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