



REC 15-152

Knollwood Energy of MA LLC
P.O. Box 30
Chester, New Jersey 07930

May 7, 2015

Debra A. Howland
Executive Director
New Hampshire Public Utilities Commission
21 South Fruit Street, Suite 10
Concord, NH 03301-2429

NHPUC 15/MAY/15AM11:09

Dear Ms Howland,

Enclosed please find the ~~amended~~ application for the Richard Langan system to be part of the Knollwood Energy of MA LLC (NH-II-13-089) Class II Photovoltaic aggregation for New Hampshire Renewable Energy Certificates (RECs) generated from customer-sited sources, pursuant to New Hampshire Code of Administrative Rules Puc 2506.

Customer and Facility Information

Richard Langan
25 Laurel Court
Portsmouth, NH 03801
603.988.4224
richard.langan@unh.edu

The new Nepoch GIS ID # for this facility is: NON49347. Also enclosed are the Simplified Process Interconnection Application and Service Agreement, and the Certificate of Completion. An electronic version has been sent to executive.director@puc.nh.gov.

Please do not hesitate to contact me if you have any questions regarding this application.

Thank you for your consideration,

Linda Modica
New England REC Operations Manager
Knollwood Energy of MA LLC
973.879.7826
linda@knollwoodenergy.com

Enclosures (3)



State of New Hampshire Public Utilities Commission

21 S. Fruit Street, Suite 10, Concord, NH 03301-2429



DRAFT APPLICATION FORM FOR RENEWABLE ENERGY CERTIFICATE (REC) ELIGIBILITY FOR CLASS I AND CLASS II SOURCES WITH A CAPACITY OF 100 KILOWATTS OR LESS

Pursuant to New Hampshire Administrative Code [Puc 2500](#) Rules including Puc 2505.08, Certification of Certain Customer-Sited Sources

- Please submit one (1) original and two (2) paper copies of the completed application and cover letter* to:
Debra A. Howland, Executive Director, New Hampshire Public Utilities Commission
21 South Fruit Street, Suite 10, Concord, NH 03301-2429
- Send an electronic version of the completed application and the cover letter electronically to executive.director@puc.nh.gov.
- The cover letter must include complete contact information and identify the renewable energy class for which the applicant seeks eligibility. Pursuant to Puc 2505.01, the Commission is required to render a decision on an application within 45 days of receiving a completed application.

If you have any questions please contact Barbara Bernstein at (603) 271-6011 or Barbara.Bernstein@puc.nh.gov.

- **Photovoltaic (PV) solar facilities are Class II resources. Contact Barbara.Bernstein@puc.nh.gov for assistance.**

Eligibility Requested for: Class I Class II Check here if this facility part of an aggregation.

If the facility is part of an aggregation, please list the aggregator's name. Knollwood Energy of MA

- **Provide the following information for the owner of the PV system.**

Applicant Name Richard Langan Email richard.langan@unh.edu
 Address 25 Laurel Court City Portsmouth State NH Zip 03801
 Telephone 603.988.4224 Cell _____

- **For business applicants, provide the facility name and contact information (if different than applicant contact information).**

Facility Name _____ Primary Contact _____
 Address _____ City _____ State _____ Zip _____
 Telephone _____ Cell _____
 Email address: _____

- Provide a complete list of the equipment used at the facility, including the revenue grade REC meter, and, if applicable, the inverter. Your facility will not qualify for RECs without a REC meter.

equipment	quantity	Type	equipment	quantity	Type
PV panels	14	SunEdison F270	other		
Inverter	14	Enphase m215	other		
meter	1	Hialeah S-02S-20023E	other		

- A copy of the interconnection agreement and the approval to operate your PV system from your electric utility must be included with your application.
- For PSNH customers, both the *Simplified Process Interconnection Application* and *Exhibit B - Certificate of Completion* are required.

What is the nameplate capacity of your facility (found on your interconnection agreement)? 3.01 AC

What was the initial date of operation (the date your utility approved the facility)? 4/21/15

- Provide the name, license number and contact information of the installer, or indicate that the equipment was installed directly by the customer.

Installer
 Name Granite State Solar Contact Justin Thomas License # (if applicable) 0366C
 Address 197 N Main Street City Boscawen State: H Zip 03303
 Telephone 603.369.4318 email justin@granitstatesolar.com

If the equipment was installed directly by the customer, please check here:

- Provide the name and contact information of the equipment vendor.

X Check here if the installer provided the equipment and proceed to the next question.

Business Name SunEdison Contact Kim Wright
 Address 600 Clipper Drive City Belmont State CA Zip 94002
 Telephone 845.224.9376 email kwright@sunedison.com

- If an independent electrician was used, please provide the following information. (*Sunray corporate electrician*)

Electrician's Name Shawn Marvel License # 13363M
 Business Name Granite State Solar Email shawn@granitstatesolar.com

Address 197 N Main Street City Boscawen State NH Zip 03303

- **Provide the name of the independent monitor for this facility.** (A [list](http://www.puc.nh.gov/Sustainable%20Energy/Renewable_Energy_Source_Eligibility.htm) of approved independent monitors is available at http://www.puc.nh.gov/Sustainable%20Energy/Renewable_Energy_Source_Eligibility.htm.)

Independent Monitor's Name Paul Button, Energy Audits Unlimited

Is the facility certified under another state's renewable portfolio standard? yes no

If "yes", then provide proof of the certification as **Attachment C**.

- *Please note, if your facility is part of an aggregation, your aggregator should provide you with the following information.*
- **In order to qualify your facility's electrical production for Renewable Energy Certificates (RECs), you must register with the NEPOOL – GIS. Contact information for the GIS administrator follows:**

James Webb
Registry Administrator, APX Environmental Markets
224 Airport Parkway, Suite 600, San Jose, CA 95110
Office: 408.517.2174 jwebb@apx.com

If you are not part of an aggregation, Mr. Webb will assist you in obtaining a GIS facility code.

GIS Facility Code # NON49347 Asset ID # NON49347

- **Complete an affidavit by the applicant or qualified installer that the project is installed and operating in conformance with any applicable state/local building codes.** Use either the following affidavit form or provide a separate document.
- **The Commission requires a notarized affidavit as part of the application.**

AFFIDAVIT

The Undersigned applicant declares under penalty of perjury that the project is installed and operating in conformance with all applicable building codes. (please see attached)

Applicant's Signature _____ Date _____

Applicant's Printed Name Linda Modica

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

County of _____ State of _____

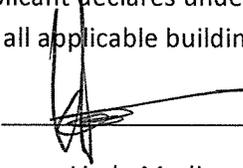
Notary Public/Justice of the Peace

My Commission Expires _____

- Complete an affidavit by the applicant or qualified installer that the project is installed and operating in conformance with any applicable state/local building codes. Use either the following affidavit form or provide a separate document.
- The Commission requires a notarized affidavit as part of the application.

AFFIDAVIT

The Undersigned applicant declares under penalty of perjury that the project is installed and operating in conformance with all applicable building codes.

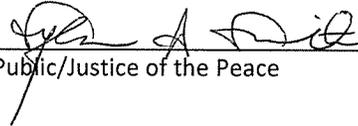
Applicant's Signature  Date 3/19/15

Applicant's Printed Name Linda Modica

Subscribed and sworn before me this 19 Day of March (month) in the year 2015

County of Morris State of New Jersey

SYLVIA A. SMITH
Notary Public
State of New Jersey
My Commission Expires Jan. 6, 2019
I.D.# 2309220
My Commission Expires


Notary Public/Justice of the Peace

- Complete the following checklist. If you have questions, contact barbara.bernstein@puc.nh.gov.

CHECK LIST: The following has been included to complete the application:	YES
• All contact information has been provided.	X
• A copy of the interconnection agreement. PSNH Customers should include both <i>the Interconnection Standards for Inverters Sized up to 100 KVA</i> and <i>Exhibit B – Certification of Completion for Simplified Process Interconnection</i> .	X
• Documentation of the distribution utility’s approval of the installation.*	X
• If the facility is participating in another state’s renewable portfolio standard (RPS) program, documentation of certification in other state’s RPS.	
• A signed and notarized attestation.	X
• A GIS number obtained from the GIS Administrator.	X
• The document has been printed and notarized.	X
• The original and 2 copies are included in the packet mailed to Debra Howland, Executive Director of the PUC.	X
• An electronic version of the completed application has been sent to executive.director@puc.nh.gov .	X
*Usually included in the interconnection agreement.	

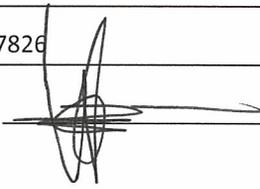
- If the application has been prepared by someone other than the applicant, complete the following. If the application was prepared by the applicant, check here and skip this section.

PREPARER'S INFORMATION

Preparer’s Name Linda Modica Email address: linda@knollwoodenergy.com

Address PO Box 30 City Chester State NJ Zip 07930

Telephone 973.879.7826 Cell _____

Preparer’s Signature:  5/7/15

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
INTERCONNECTION STANDARDS FOR INVERTERS
SIZED UP TO 100 KVA

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Simplified Process Interconnection Application and Service Agreement

SESD

PSNH Application Project ID#: N 3386

Contact Information:

Legal Name and Address of Interconnecting Customer (or, Company name, if appropriate)

Customer or Company Name (print): Richard Langan

Contact Person, if Company: _____

Mailing Address: 25 Laurel Court

City: Portsmouth State: New Hampshire Zip Code: 03801

Telephone (Daytime): (603) 988-4224 (Evening): _____

Facsimile Number: _____ E-Mail Address: richard.langan@unh.edu

Alternative Contact Information (e.g., System installation contractor or coordinating company, if appropriate):

Name: Granite State Solar

Mailing Address: 197 North Main St

City: Boscawen State: New Hampshire Zip Code: 03303

Telephone (Daytime): (603) 369-4318 (Evening): _____

Facsimile Number: _____ E-Mail Address: justin@granitestatesolar.com

Electrical Contractor Contact Information (if appropriate):

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Telephone (Daytime): _____ (Evening): _____

Facsimile Number: _____ E-Mail Address: _____

Facility Site Information:

Facility (Site) Address: 25 Laurel Court ✓

City: Portsmouth State: NH Zip Code: 03801

Electric

Service Company: PSNH Account Number: 56379226018 ✓ Meter Number: S25993659 ✓

Account and Meter Number: Please consult an actual PSNH electric bill and enter the correct Account Number and Meter Number on this application. If the facility is to be installed in a new location, please provide the PSNH Work Request number.

PSNH Work Request #: _____

Non-Default Service Customers Only:

Competitive Electric

Energy Supply Company: _____ Account Number: _____

(Customer's with a Competitive Energy Supply Company should verify the Terms & Conditions of their contract with their Energy Supply Company.)

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
INTERCONNECTION STANDARDS FOR INVERTERS
SIZED UP TO 100 KVA

Simplified Process Interconnection Application and Service Agreement

Facility Machine Information:

Generator/ Inverter Manufacturer: Enphase ✓ Model Name & Number: M-215 ✓ Quantity: 14 ✓
Nameplate Rating: .215 ✓ (kW) 240 (kVA) (AC Volts) Phase: Single Three

Nameplate Rating: The AC Nameplate rating of the individual inverter.

✓ System Design Capacity: 3.01 (kW) (kVA) Battery Backup: Yes No

System Design Capacity: The system total of the inverter AC ratings. If there are multiple inverters installed in the system, this is the sum of the AC nameplate ratings of all inverters.

✓ Net Metering: If Renewably Fueled, will the account be Net Metered? Yes No

Prime Mover: Photovoltaic Reciprocating Engine Fuel Cell Turbine Other _____

Energy Source: Solar Wind Hydro Diesel Natural Gas Fuel Oil Other _____

Inverter-based Generating Facilities:

UL 1741 / IEEE 1547.1 Compliant (Refer To Part Puc 906 Compliance Path For Inverter Units, Part Puc 906.01 Inverter Requirements)
Yes No

✓ The standard UL 1741.1 dated May, 2007 or later, "Inverters, Converters, and Controllers for Use With Independent Power Systems," addresses the electrical interconnection design of various forms of generating equipment. Many manufacturers choose to submit their equipment to a Nationally Recognized Testing Laboratory (NRTL) that verifies compliance with UL 1741.1. This term "Listed" is then marked on the equipment and supporting documentation. Please include, any documentation provided by the inverter manufacturer describing the inverter's UL 1741/IEEE 1547.1 listing.

External Manual Disconnect Switch:

An External Manual Disconnect Switch shall be installed in accordance with 'Part Puc 905 Technical Requirements For Interconnections For Facilities, Puc 905.01 Requirements For Disconnect Switches and 905.02 Disconnect Switch.'

✓ Yes No

Location of External Manual Disconnect Switch: Next to the meter ✓

Project Estimated Install Date: April Project Estimated In-Service Date: April

Interconnecting Customer Signature:

I hereby certify that, to the best of my knowledge, all of the information provided in this application is true and I agree to the Terms and Conditions for Simplified Process Interconnections attached hereto:

Customer Signature: Richard Long Title: Homeowner Date: 4/7/15

Please include a one-line and/or three-line diagram of proposed installation. Diagram must indicate the generator connection point in relation to the customer service panel and the PSNH meter socket. Applications without such a diagram may be returned.

For PSNH Use Only

Approval to Install Facility:

Installation of the Facility is approved contingent upon the Terms and Conditions For Simplified Process Interconnections of this Agreement, and agreement to any system modifications, if required.

Are system modifications required? Yes No To be Determined

Company Signature: Michael Motta Title: SR. ENGINEER Date: 4-9-15

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
INTERCONNECTION STANDARDS FOR INVERTERS
SIZED UP TO 100 KVA
Terms and Conditions for Simplified Process Interconnections

Company waives inspection/Witness Test: Yes No

Date of inspection/Witness Test: _____

1. **Construction of the Facility.** The Interconnecting Customer may proceed to construct the Facility in compliance with the specifications of its Application once the Approval to Install the Facility has been signed by the Company. Such Approval relates only to the PSNH and Pac 900 electrical interconnection requirements, and does not convey any permissions or rights associated with permits, code enforcement, easements, rights of way, set back, or other physical construction issues.
2. **Interconnection and operation.** The Interconnecting Customer may operate Facility and interconnect with the Company's system once the all of the following has occurred:
 - 2.1. **Municipal Inspection.** Upon completing construction, the Interconnecting Customer will cause the Facility to be inspected or otherwise certified by the local electrical wiring inspector with jurisdiction.
 - 2.2. **Certificate of Completion.** The Interconnecting Customer returns the Certificate of Completion to the Agreement to the Company at address noted.
 - 2.3. **Company has completed or waived the right to inspection.**
3. **Company Right of Inspection.** The Company will make every attempt within ten (10) business days after receipt of the Certificate of Completion, and upon reasonable notice and at a mutually convenient time, conduct an inspection of the Facility to ensure that all equipment has been appropriately installed and that all electrical connections have been made in accordance with the Interconnection Standard. The Company has the right to disconnect the Facility in the event of improper installation or failure to return Certificate of Completion. All projects larger than 10 kVA will be witness tested, unless waived by the Company.
4. **Safe Operations and Maintenance.** The Interconnecting Customer shall be fully responsible to operate, maintain, and repair the Facility.
5. **Disconnection.** The Company may temporarily disconnect the Facility to facilitate planned or emergency Company work.
6. **Metering and Billing.** All renewable Facilities approved under this Agreement that qualify for net metering, as approved by the Commission from time to time, and the following is necessary to implement the net metering provisions:
 - 6.1. **Interconnecting Customer Provides:** The Interconnecting Customer shall furnish and install, if not already in place, the necessary meter socket and wiring in accordance with accepted electrical standards. In some cases the Interconnecting Customer may be required to install a separate telephone line.
 - 6.2. **Company Installs Meter.** The Company will make every attempt to furnish and install a meter capable of net metering within ten (10) business days after receipt of the Certificate of Completion if inspection is waived, or within 10 business days after the inspection is completed, if such meter is not already in place.
7. **Indemnification.** Interconnecting Customer and Company shall each indemnify, defend and hold the other, its directors, officers, employees and agents (including, but not limited to, Affiliates and contractors and their employees), harmless from and against all liabilities, damages, losses, penalties, claims, demands, suits and proceedings of any nature whatsoever for personal injury (including death) or property damages to unaffiliated third parties that arise out of, or are in any manner connected with, the performance of this Agreement by that party, except to the extent that such injury or damages to unaffiliated third parties may be attributable to the negligence or willful misconduct of the party seeking indemnification.
8. **Limitation of Liability.** Each party's liability to the other party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, shall be limited to the amount of direct damage actually incurred. In no event shall either party be liable to the other party for any indirect, incidental, special, consequential, or punitive damages of any kind whatsoever.
9. **Termination.** This Agreement may be terminated under the following conditions:
 - 9.1. **By Mutual Agreement.** The Parties agree in writing to terminate the Agreement.
 - 9.2. **By Interconnecting Customer.** The Interconnecting Customer may terminate this Agreement by providing written notice to Company.
 - 9.3. **By Company.** The Company may terminate this Agreement (1) if the Facility fails to operate for any consecutive 12 month period, or (2) in the event that the Facility impairs or, in the good faith judgment of the Company, may imminently impair the operation of the electric distribution system or service to other customers or materially impairs the local circuit and the Interconnecting Customer does not cure the impairment.
10. **Assignment/Transfer of Ownership of the Facility.** This Agreement shall survive the transfer of ownership of the Facility to a new owner when the new owner agrees in writing to comply with the terms of this Agreement and so notifies the Company.
11. **Interconnection Standard.** These Terms and Conditions are pursuant to the Company's "Interconnection Standards for Inverters Sized Up to 100 kVA" for the Interconnection of Customer-Owned Generating Facilities, as approved by the Commission and as the same may be amended from time to time ("Interconnection Standard"). All defined terms set forth in these Terms and Conditions are as defined in the Interconnection Standard (see Company's website for the complete document).

RECEIVED

APR 21 2015

SESD

Public Service Company Of New Hampshire
Interconnection Standards For Inverters Sized Up To 100 kVA
Exhibit B - Certificate of Completion for Simplified Process Interconnections

Installation Information: Check if owner-installed

Customer or Company Name (print): Richard Langan

Contact Person, if Company: _____

Mailing Address: 25 Laurel Court

City: Portsmouth State: NH Zip Code: 03801

Telephone (Daytime): 603-988-4224 (Evening): _____

Facsimile Number: _____ E-Mail Address: richard.langan@unh.edu

Facility Information:

Address of Facility (if different from above): _____

City: _____ State: _____ Zip Code: _____

Electrical Contractor Contact Information:

Electrical Contractor's Name (if appropriate): Shawn Marvel

Mailing Address: 197 North Main St

City: Boscawen State: NH Zip Code: 03303

Telephone (Daytime): (603) 209-4364 (Evening): _____

Facsimile Number: _____ E-Mail Address: shawn@granitestatesolar.com

License number: 13363 M

Date of approval to install Facility granted by the Company: _____

PSNH Application ID number: #N 3386

Inspection:

The system has been installed and inspected in compliance with the local Building/Electrical Code of:

City: _____ County: _____

Signed (Local Electrical Wiring Inspector, or attach signed electrical inspection):

Signature: John P. Plouffe

Name (printed): John Plouffe Date: 4-21-15

Customer Certification:

I hereby certify that, to the best of my knowledge, all information contained in this Exhibit B - Certification of Completion is true and correct. This system has been installed and shall be operated in compliance with applicable standards. Also, the initial start-up test required by Rec. 905.04 has been successfully completed.

Customer Signature: Richard Langan

As a condition of interconnection you are required to send/fax a copy of this form to :

Public Service Company of New Hampshire
Supplemental Energy Sources Department
780 North Commercial Street
P. O. Box 330, Manchester, NH 03105-0330
Fax No.: (603) 634-2924