

# NH Public Utilities Commission

NHPUC 21APR'16PM12:05

## REC Aggregator Portal

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New Users [CLICK HERE](#) to setup your account for this form. Creating an account enables you to partially complete the form and return later to finish it or to make changes after the form is submitted. Be sure to create your account **BEFORE** entering information into the form, or the information will be lost.

Existing Users [CLICK HERE](#)

### Basic Information

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Who is submitting this request?

Aggregator Batch Number

Are you registered in NH

- Yes
- No

Aggregator name

NH Reg #

Aggregator Email

Other Aggregator name

Other aggregator email address

Facility Name

Facility Owner Name

Facility Owner email

rbehrsing@gmail.com

Owner Phone

603-547-6249

Facility Address

102 Gerrish Rd

Facility Town/City

Francestown

Facility State

NH

Facility Zip

03043

Is the facility address the same as the owner's mailing address

Yes

No

Mailing Address

Mailing Town/City

Mailing State

Mailing Zip

Primary Contact

Karen Tenneson

Primary Contact

Facility Primary Contact

karenton@knollwoodenergy.com

Other Email Address

Facility Information

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Class

Utility

Other Utility Name

To obtain a GIS ID contact:

James Webb

408 517 2174

jwebb@apx.com

GIS ID (include "NON")

Date of Initial Operation

Facility Operator Name, if applicable

Panel Quantity

Panel Make

Panel Model

Panel Rated Output

System capacity based on panels

Inverter Quantity

20

Inverter Make

Enphase Energy

Add'l Inverter Quantity

NA

Additional Inverter Make

None

Rated Output - Primary Inverter

250

Rated Output - Additional Inverter

System capacity based on single inverter make

5000

System capacity based on two inverter types

System capacity in kW as stated on the interconnection agreement

4.56

Revenue Grade Meter Make

Other

Was this facility installed directly by the customer (no electrician involved)?

- Yes
- No

Electrician Name & Number

Jason Durgin11828M

Other Electrician Name & Number

Installation Company

Milhouse Enterprises

Other Installation Company Name

Other Inst. Company Address

Other Inst. Company City

Other Inst. Company State

Other Inst. Company Zip

Independent Monitor Name & Company

Other Monitor Name and Company

Is the installer also the equipment supplier?

- Yes
- No

Equipment Vendor

Please attach your completed interconnection agreement including Exhibit B.

The project described in this application will meet the metering requirements of PUC 2506 including:

Electricity generation in megawatt hours shall be reported to the GIS quarterly with a statement that the submission is accurate by the owner of the source, the independent monitor or a designated representative.

A revenue quality meter is used to measure the electricity generated.

The facility owner has certified to the independent monitor that the meter operates according to manufacturing standards.

The meter shall be maintained according to the manufacturer's recommendations.

The project is installed and operating in conformance with applicable building codes.

A copy of the facility's interconnection agreement is attached.

Please attach additional document here

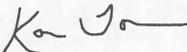
[https://fs30.formsite.com/jan1947/files/f-5-168-6590273\\_VNyb3ngl\\_Bershing\\_NHOS.pdf](https://fs30.formsite.com/jan1947/files/f-5-168-6590273_VNyb3ngl_Bershing_NHOS.pdf)

Please attach additional document here

[https://fs30.formsite.com/jan1947/files/f-5-173-6590273\\_xqq9fJte\\_Behrsing\\_SPIA.pdf](https://fs30.formsite.com/jan1947/files/f-5-173-6590273_xqq9fJte_Behrsing_SPIA.pdf)

Aggregator statement of accuracy

Sign your name using a mouse or, if you are using a touch-screen device, a stylus or other pointer.



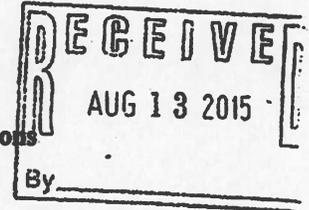
Print Name

Karen Tonnesen

Date Signed

04/19/2016

Eversource  
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): Ruth Behrsing

Contact Person, if Company: \_\_\_\_\_

Mailing Address: 102 Gerrish Rd

City: Francestown State: NH Zip Code: 03043

Telephone (Daytime): 603-547-6249 (Evening): \_\_\_\_\_

Facsimile Number: \_\_\_\_\_ E-Mail Address: rbehrsing@gmail.com

Facility Information: → Eversource Meter # S 72 294 986

Address of Facility (if different from above): same

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

**Electrical Contractor Contact Information:**

Electrical Contractor's Name (if appropriate): Jason Durgin

Mailing Address: 461 Cross Mill Rd

City: Northfield State: NH Zip Code: 03276

Telephone (Daytime): 603-630-6574 (Evening): \_\_\_\_\_

Facsimile Number: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

License number: 11828M

Date of approval to install Facility granted by the Company: 8/11/2015

Eversource Application ID number: #N3844

**Inspection:**

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

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

Signature: Ed Hunter Jason Durgin

Name (printed): Ed Hunter Jason Durgin Date: 8/12/15

**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 Puc. 905.04 has been successfully completed.

Please remember to provide digital photos of the installation, including the AC disconnect switch (if required), the existing Eversource meter, the inverters, and the point of electrical interconnection.

Customer Signature: Ruth Behrsing

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

Eversource  
Distributed Generation  
780 North Commercial Street  
P. O. Box 330, Manchester, NH 03105-0330  
Fax No.: (603) 634-2924

**EVERSOURCE  
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: M250 Quantity: 16  
 Nameplate Rating: .25 (kW) 250 (kVA) \_\_\_\_\_ (AC Volts) Phase: Single  Three   
*Nameplate Rating: The AC Nameplate rating of the individual inverter.*  
 System Design Capacity: 4 (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: at array

Project Estimated Install Date: 8/2015 Project Estimated In-Service Date: 8/2015

**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: *[Signature]* Title: Homeowner Date: 8/10/15

*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 Eversource meter socket. Applications without such a diagram may be returned.*

**For Eversource 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: *[Signature]* Title: Associate Date: 8/11/15  
*Evs. neer*

**EVERSOURCE**  
**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 Eversource and Puc 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).

**EVERSOURCE NH  
INTERCONNECTION STANDARDS FOR INVERTERS  
SIZED UP TO 100 KVA  
Simplified Process Interconnection Application  
Customer Requirements "Checklist"**

Please provide the following information with your Application.

**Electrical Sketch / Site Plan**

- Does not need to be PE stamped.
- Must show the existing/proposed service, including the Eversource revenue metering, and how the proposed generation will interconnect to it.
- Can be hand drawn, but must be legible.
- Include: Size of main breaker, external AC disconnect switch (when required or installed), kW rating, Inverter(s) and existing or back up generation (if applicable).
- AC generator disconnects are required for systems over 10.0 kW. NOTE: Eversource may require a disconnect switch for smaller systems in accordance with Part PUC 905 Technical Requirements for Interconnections For Facilities, PUC 905.01 Requirements For Disconnect Switches and 905.02 Disconnect Switch.
- Must show actual proposed equipment. Ex: Do NOT include "MIN 60A" for a disconnect size.

Provide photograph of Eversource revenue meter that the generation will interconnect behind. If property has multiple meters, it is important that the application documentation clearly identify which meter relates to the generation source.

Inverter cut sheet. Provide UL 1741 and IEEE 1547 certification (if not already on file).

Eversource Work Request number if; a new service or a service upgrade.

Applications submitted without the appropriate documentation will be delayed in processing and/or returned.



# Certificate of Compliance

**Certificate:** 2395707

**Master Contract:** 240080

**Project:** 70025037

**Date Issued:** March 3, 2015

**Issued to:** Enphase Energy, Inc.  
 1420 N McDowell Blvd  
 Petaluma, CA 94954-6515  
 USA

*The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.*



*Rob Hempstock*

**Issued by:** Rob Hempstock, ASCT.

**PRODUCTS**

- CLASS 5311 09** - POWER SUPPLIES - Distributed Generation Power Systems Equipment
- CLASS 5311 89** - POWER SUPPLIES - Distributed Generation - Power Systems Equipment
- Certified to U.S. Standards

Photovoltaic Utility Interactive Inverters for use with 60 cell PV modules, grounded and floating PV arrays, models M190-60, M215-60, M215-60-IG, M240-60 and M250-60 with the following suffixes:

Base Model	Alternate Listings	Connector Style	Ungrounded option	Angled Mounting Flange (optional)	North-American Manufactured Contents
M215-60	-2LL -SIE	-S21 to -S25	-IG (Optional)	-ZC (optional)	-NA or -US (optional)
M190-60 * M240-60 *	-2LL -SIE	-S21 to -S25	-IG	-ZC (optional)	-NA or -US (optional)
M250-60 *	-2LL -SIE	-S21 to -S25	*	-ZC (optional)	-NA or -US (optional)



**Certificate:** 2395707

**Master Contract:** 240080

**Project:** 70025037

**Date Issued:** March 3, 2015

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\*M190-60, M240-60 and M250-60 models are intended for connection to ungrounded arrays only.

For details related to rating, size, configuration, etc. reference should be made to the CSA Certification Record, the Descriptive Report, or Attachment 1 - Ratings.

Notes:

1. AC and DC connectors evaluated for disconnecting under load (for this application only).

**APPLICABLE REQUIREMENTS**

CAN/CSA-C22.2 No. 107.1-01 - General Use Power Supplies

UL Std No. 1741-Second Edition - Inverters, Converters, Controllers and Interconnection System Equipment for Use With Distributed Energy Resources (Rev. January 7, 2015)

Note: Conformity to UL 1741-Second Edition (Rev. January 7, 2015) includes compliance with applicable requirements of IEEE 1547 and IEEE 1547.1.

## New Hampshire PUC REC Certification Application Owner Statements

The information provided on this application for New Hampshire Renewable Energy Certificate eligibility is accurate to the best of my knowledge and I authorize Knollwood Energy to act on my behalf in filing said application.

The project described in this application will meet the metering requirements of PUC 2506 including:

Electricity generation in megawatt hours shall be reported to the GIS quarterly with a statement that the submission is accurate by the owner of the source, the independent monitor, or a designated representative.

A revenue quality meter is used to measure the electricity generated.

The facility owner has certified to the independent monitor that the meter operates according to manufacturing standards.

The meter shall be maintained according to the manufacturer's recommendations.

The project is installed and operating in conformance with applicable building codes.

A copy of the facility's interconnection agreement is attached.

Ruth Behrsing

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Printed Name of signature owner

*Ruth Behrsing*

Ruth Behrsing (Nov 24, 2015)

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Signature of system owner