New Hampshire Electric Cooperative (NHEC)
Introduction to Net Metering

NHEC supports the development of member-sited renewable energy generation and storage facilities (referred to herein as an interconnection facility) by providing net metering, which is the installation of a bi-directional meter that allows you to offset your electricity requirements and to export surplus energy into our distribution system.

If you are planning to install a generating or storage facility and connecting to NHEC's grid you must receive approval from us.

This Application package assists us with evaluating your proposed facility and to ensure it will not adversely affect our electrical distribution system.

Please begin with the recommended steps below to facilitate a smooth process for your project.

1. It is important that you and your contractor read and understand NHEC's Terms and Conditions, Section X – Net Metering

2. Review the net metering rates found in NHEC's Schedule of Rates.

3. Once you finalize your interconnection facility plans, fully complete and submit Step 1- Net Metering Interconnection Application Form, which is located below in this document.

4. Do not use this form for installations greater than 1 MW or for those defined by PURPA as Qualifying Facilities.

5. If you have a competitive power supplier, we recommend you contact them to learn of their net metering policy.

Interconnection Facility Application Process

There are **two steps** required to complete the interconnection application:

Step 1 – Net Metering Interconnection Application Form

- Interconnection Application form is a two page document listing the applicant, generator information, contractor, and electrician information. Step 1 shall be completed in full and received before installation begins. Incomplete applications will not be accepted. Line design assessment and/or system impact studies may be required. Applicants are responsible for all costs associated with interconnection to the grid.
- A $100 Application Fee will be charged for proposed systems with an inverter nameplate rating greater than 10 kW AC. Additions to existing interconnected facilities that in total exceed 10 kW AC will also be subject to an Application Fee. (We will contact you to arrange for fee payment)
- Interconnection Application form is reviewed by a NH Electric Cooperative representative for completeness. If complete, the Step 1 application is entered into the queue by queue number* and receipt date. The applicant and/or contractor will receive application acceptance notification via mail or email.
- If we determine that a system upgrade assessment is required to accommodate the proposed interconnection facility, a $270 Line Design Fee will be assessed for us to visit the site, design the upgrade, and estimate the construction cost. (We will contact you to arrange for design fee payment)
    - If system upgrades are necessary, you will be provided a system upgrade cost estimate for you to review, sign, and submit to us.
    - Once the construction payment is received we will schedule the system upgrade that, when completed, allows you to begin building your interconnection facility.
    - Note: proposed systems with an inverter nameplate rating greater than 36 kW single phase or 108 kW three phase will require a System Impact Study.
- For systems over 10 kW AC an exterior production meter disconnect must be installed
- Systems are required to have an approved member-installed exterior production meter socket for NHEC monitoring purposes.
- Systems over 10 kW AC and installations with battery storage/backup must include a one-line diagram attached to the Step 1 Application.
- Submit documents by mail, fax, or email to:

New Hampshire Electric Cooperative, Inc.
Attn: Scott C. McNeil
579 Tenney Mountain Highway
Plymouth, NH 03264
Phone - 603-536-8608 / Fax - 603-536-8698
mcneils@nhec.com

Step 2 Net Metering Completion Form

- Completion forms are submitted after the project is installed and tested by the electrician. Step 2 must be completed in full. Incomplete forms will not be accepted.
  Utility inspection is scheduled after the Step 2 Completion Form, Mutual Indemnity Agreement, and the Renewable Energy Certificate (REC) Member Agreement receipt. Following utility inspection, interconnection is approved by a NH Electric Cooperative representative. If all is in order the interconnection is approved by a NH Electric Cooperative representative.

*** The Queue Number:**

- Identifies a position relative to our available grid capacity
- It is a ranking process that indicates the order in which Interconnection Applications have been received.
- Establishes a priority order in which requests will be processed (i.e. reviews and engineering studies).
- By establishing a queue, we can determine which resource has triggered the need for circuit upgrades.
- Interconnection Applications are held in queue for 12 months following the receipt date of complete Applications. Any change to the original Application relative to an increase of the AC inverter nameplate rating will require the applicant to re-apply for interconnection. Upon re-application, the applicant will be assigned a new queue number and acceptance date.

APPLICANT HEREBY GIVES NOTICE OF INTENT TO INSTALL AND OPERATE A NET METERED RENEWABLE GENERATING FACILITY

STEP 1 - NET METERING INTERCONNECTION APPLICATION FORM

To be completed by Applicant (*Contractor or Electrician may provide application assistance)*

Applicant (as listed on NHEC billing statement): _____

Contact Name (if business):_____email:_____

Mailing Address: _____

City: _____State: _____ Zip: _____

Phone Number: _____ NHEC electric account number: _____

Renewable Generation Facility Location (if different from mailing address):

Street Address: _____

City: _____ State: _____ Zip: _____

Are you adding to an existing Generating Facility: (circle one): ***Yes*** ***No***

Do You Receive Power From a Competitive Supplier (circle one): ***Yes*** ***No***

Name of 3rd Party Competitive Electricity Supplier: _____

Have you informed the Supplier of your intent to Net Meter? (circle one) *Yes* *No*

Generating Facility Information *(Please note: UL 1741 SA inverters are required)*

Generator Type: (circle one) *Solar PV* *Wind* *Hydro* *Other*: _____

Generator Manufacturer and Model #: _____Qty._____

Inverter Manufacturer and Model #: _____ Qty._____

Phase: (circle one) *Single Phase* *Three Phase*

Inverter nameplate rating: AC Kilowatts _____DC Kilowatts_____

Battery (circle one) *Yes* *No*

(If Yes, please complete the Battery Storage/Backup Supplemental Form)

STEP 1 - NET METERING INTERCONNECTION APPLICATION FORM CONTINUED

Contractor information

Contractor Name: _____

Mailing Address: _____City: _____State: _____ Zip: _____

Phone Number: _____ email: _____

Proposed Start Date: _____Proposed Completion Date: _____

Electrician information **Self-installation** (circle one)**:** *Yes* *No*

Electrician Name: _____State of NH Electrician's License #:_____

Mailing Address: _____City: _____ State: _____ Zip: _____

Phone Number: _____email: _____

I have read and understand NHECs Terms and Conditions Section X – Net Metering, current Schedule of Rates, and the terms of this Interconnection Application. I authorize NHEC to provide my account information as requested to the listed installing contractor. This authorization expires upon system interconnection.

Applicant Signature: _____ Date: _____

To be completed by New Hampshire Electric Cooperative

Utility representative signature to signify receipt and acceptance of this Interconnection Application form, in compliance with the NHEC's Terms & Conditions.

$100 Application Fee required (circle one): *Yes* *No*

$270 System Assessment required (circle one): *Yes* *No*

Service Order # _____

NHEC Representative Signature: _____

Print Name: _____

Application Queue# _____ Date: _____

One-Line Diagram

Required for:

1. ***Proposed interconnection facilities over 10 kW AC***
2. ***Battery Storage / Backup Installations***

Attach one-line diagram. Include any other pertinent technical information.
(A legible handwritten sketch is permitted)

STEP 2 - NET METERING COMPLETION FORM

To be completed by System Contractor

Name (Printed):_____

Company: _____

Company Address: _____

The system has been installed as specified in Step 1 - Net Metering Application Form:

Signed (Contractor):_____ Date: _____

To be completed by Town Inspector

The system has been installed in compliance with local Building/Electrical Code of City/County:

City: _____ County: _____

Town Inspector Signature (or installing electrician if town has no inspector):

Signature: _____ Date: _____

Print Name: _____

To be completed by Installing Electrician

In accordance with NHEC requirements, the mandatory labeling is affixed to the meter enclosures. Labeling must be formatted with a red background and white lettering with similar language as below:

Net Meter label

PRIMARY NET METER
WARNING
DUAL POWER SOURCE
SECOND SOURCE FROM SOLAR PV

Solar Generation (REC) Meter label

SOLAR GENERATION METER

- ☐ The load-break (witness) test required by NHEC's Terms and Conditions - Section X.2(f)(4)(a) has been successfully completed
- ☐ The system equipment is listed to Underwriters Laboratories standards to be in compliance with UL1741 SA and IEEE 929-2000
- ☐ The renewable generating installation complies with applicable federal, state and local laws, ordinances and regulations.

Installing Electrician Signature: _____

Print Name: _____Date:_____

STEP 2 - NET METERING COMPLETION FORM CONTIUNED

To be completed by Applicant

Applicant agrees to install and operate the system in accordance with NHEC's Terms & Conditions and provide NHEC a written update if any changes or additions occur including property transfer of ownership.

I hereby certify that, to the best of my knowledge, all of the information provided in this document is true and correct.

Signature of NHEC Applicant: _____ Date: _____

Once NHEC receives **Step 2 - Net Metering Completion Form**, a NHEC representative will contact you to schedule a date and time for a site visit to verify the installation, install meters, and perform the required utility witness test.

To be completed by NHEC – INTERCONNECTION INSPECTION AND WITNESS TEST:

☐ Installation has been installed as specified in **Step 1 - Net Metering Application Form**

☐ Utility Witness Test has been successfully completed.

☐ NHEC Inspection and Interconnection by:

Signature: _____

Print Name: _____Date: _____

In the event there are conditions preventing safe interconnection and proper interconnection operation, NHEC will notify the member. The member may not interconnect or initiate interconnection operation until such conditions are corrected and written notification has been provided to NHEC at least 10 days in advance of interconnection or parallel operation.

MUTUAL INDEMNITY AGREEMENT
Per NHEC T&C Section X.2. (11)(a)(2) & NH Puc 904.03

"Each Party shall hold harmless and indemnify the other Party and its directors, officers, agents, and employees against any and all loss, liability, damage, or expense, including any direct, indirect or consequential loss, liability, damage, or expense, but not including attorneys' fees unless awarded by a court of competent jurisdiction, for injury or death to persons, including employees of either Party, and damage to property, including property of either Party, arising out of or in connection with intentional, willful, wanton, reckless or negligent conduct regarding (a) the engineering, design, construction, maintenance, repair, operation, supervision, inspection, testing, protection or ownership of the Party's facilities, or (b) The making of replacements, additions, or improvements to, or reconstruction of, the Party's facilities. However, neither Party shall be indemnified hereunder for any loss, liability, damage, or expense resulting from its sole negligence or willful misconduct. Notwithstanding the indemnity provisions contained herein, except for a Party's willful misconduct or sole negligence, each Party shall be responsible for damage to its own facilities resulting from electrical disturbances or faults."

Member

_____ Eligible Member-Generator (sign)

_____ Eligible Member-Generator (print)

_____ Date Signed

To be completed by New Hampshire Electric Cooperative, Inc. (NHEC)

_____ Signature

By its _____ Title of Authorized Utility Personnel

_____ Typed or Printed Name of Utility Representative

_____ Date Signed

Renewable Energy Certificates

Renewable Energy Certificates (RECs) are part of a regulatory system created by state law and are designed to establish a financial market which recognizes, quantifies and permits the purchase and sale of the environmental value of producing electricity using renewable sources such as hydro, wind, solar, biomass, or landfill gas. One REC represents the environmental value of one megawatt-hour (MWh) of renewable generation. In this way, the owner of a renewable power generator may be rewarded with an additional monetary benefit for each MWh of renewable energy produced.

While anyone can purchase RECs, most are purchased by electric utilities which are required by state law to own predefined quantities of RECs tied to a percentage of their total annual electricity sales. These predefined quantities are called the Renewable Portfolio Standard (RPS). At its discretion, NHEC is a purchaser of RECs and acquires RECs from a variety of sources. RECs are governed by a regulatory process with the New Hampshire Public Utilities Commission (NH Puc). The NH Puc process is governed by statute and rules which can be found in the following websites:

http://www.gencourt.state.nh.us/rsa/html/XXXIV/362-F/362-F-mrg.htm (statute)

http://puc.state.nh.us/Regulatory/Rules/Puc2500.pdf (rules)

The regulatory process to qualify a renewable generator for production of RECs includes an application which must be completed and filed with the NH Puc for approval. Additionally, when a renewable resource is net metered, referred to as a Member-Sited Source, it must also have an approved monitor. NHEC has been approved as a monitor. Among other responsibilities, in order to monitor a Member-Sited Source, NHEC will install a generation meter to record the amount of electric energy the resource generates , routinely read and maintain the generation meter, and report to the NH PUC on a regular basis. NHEC may charge a monthly Monitoring Fee. Please refer to our website for the current fee.

The billing statements you receive from NHEC are based on kilowatt-hours (kWh) of usage. One REC is equal to one megawatt-hour (MWh) of renewable generation. It takes 1,000 kWh to produce one MWh. Unfortunately, the regulatory process which governs RECs does not recognize or allow the sale of renewable generation in increments less than one MWh. Accordingly, “partial” RECs are not counted or traded. Therefore, your renewable energy source must generate at least 1,000 kWh within a calendar year before a REC is produced. Member-generators who are planning to install a renewable energy source that is net metered have four choices regarding aggregation of the RECs:

A. *NHEC will monitor renewable generation for informational purposes only.* In addition to inspecting the interconnection and installing a net meter on your account, NHEC will install a generation meter to record the electric energy produced by your renewable system. Under this option your system will not accrue RECs and no application is filed with the NH PUC. Upon request, NHEC will provide you with an annual report of your generation. NHEC will charge a monthly Monitoring Fee (please reference NHEC's Schedule of Fees, Charges and Rates). If this is your choice, please mark an X at Option A of the Renewable Energy Certificate Member Agreement.

B. *Allow NHEC to have the RECs.* In addition to inspecting the interconnection and installing a net meter on your account, NHEC will install a generation meter to record the electric energy produced by your renewable system. NHEC will complete an application to be filed with the NH Puc for their approval of the RECs. NHEC will report the annual renewable generation information to the NH Puc in accordance with the rules and regulations. Upon request, NHEC will provide you with an annual report of your renewable generation. NHEC will not charge a monthly Monitoring Fee. Under this option, you would be helping NHEC meet its RPS requirement. If this is your choice, please mark an X at Option B of the Renewable Energy Certificate Member Agreement.

C. *Sell the RECs to NHEC.* In addition to inspecting the interconnection and installing a net meter on your account, NHEC will install a generation meter to record the electric energy produced by your renewable system. NHEC will complete an application, with your assistance, to be filed with the NH Puc in accordance with the rules and regulations. NHEC will report the annual renewable generation information to the NH Puc and to you. In accordance with Section X of NHEC's Terms and Conditions, NHEC will make either an annual payment or credit your account for the RECs generated by your renewable source in accordance with the terms of the attached agreement. NHEC will charge a monthly Monitoring Fee. If this is your choice, please mark an X at Option C of the Renewable Energy Certificate Member Agreement.

D. *Do Nothing.* You may elect to not choose any of the three options listed above and not involve NHEC in the REC process. In addition to inspecting the interconnection and installing a net meter on your account, NHEC will install a generation meter for administrative purposes only. NHEC will not charge a monthly Monitoring Fee. Under this option, NHEC will not report the annual renewable generation information to the NH Puc. If this is your choice, please mark and X at Option D of the Renewable Energy Certificate Member Agreement.

Please note this is an ever-changing marketplace. Other options and state rules may apply in the future.

All options require NHEC to install a renewable generation meter in an approved meter socket installed by your electrician. The meter socket must be installed at an exterior location accessible by a NHEC meter technician.

Please note that the information in this document relates to your Renewable Energy Source only and does not change any of the other Rates, Fees and Charges applicable to your account.

If you have any questions regarding the information in this document, please call Bill Vecchio at 603-536-8632 or Scott McNeil at 603-536-8608.

RENEWABLE ENERGY CERTIFICATE (REC) MEMBER AGREEMENT

THIS AGREEMENT is hereby entered into this ___ day of _____, ____ (received date) between New Hampshire Electric Cooperative, Inc. (herein NHEC), having principal offices at 579 Tenney Mountain Highway, Plymouth, NH 03264 and its member, _____ with account number _____(herein Member) (collectively herein the Parties).

Whereas, Member has installed, or is in the process of installing, solar photovoltaic, wind or other renewable electric generation equipment at its service location as a member of NHEC (Member-Sited Renewable Resource) as described in Appendix A below.

Whereas, NHEC desires to facilitate its member's renewable generation activities and desires to obtain RECs and encourage renewable generation in a manner most beneficial to all it members. NHEC has received New Hampshire Public Utilities Commission (NH Puc) approval as an Independent Monitor as that term is defined by the NH Puc rule 2505.09

Now, therefore, in accordance with the foregoing and in consideration of the mutual promises and agreements set forth herein, NHEC and Member agree to the following provisions:

1. Metering

Member will install or cause to be installed a generation meter socket at an exterior location accessible by a NHEC meter technician and electrically connected in such a way as to measure the electrical energy produced by the Member-Sited Renewable Source.

NHEC will install, maintain and read the revenue-quality meter that meets the regulatory requirements to record the generation of the Member Sited Renewable Source.

2. Term

The Term of this Agreement shall begin on the Received Date and continue perpetually until either Party provides the other Party with 90 days written notice to terminate this Agreement, or until Member terminates his electric service account with NHEC for service at the location of the Member Sited Renewable Source.

3. Member Options

Choose and initial one of the following options:

_____ A. *NHEC will monitor renewable generation for informational purposes only.* NHEC *will* charge a monthly Monitoring Fee (Please refer to NHEC's current schedule of Fees, Charges & Rates for the current monitoring fee) as applicable at the time of billing. This fee will be charged as part of Member's normal billing from NHEC. This fee is subject to change by the NHEC Board of Directors. Upon request, NHEC will provide the Member with an annual report of the generation of the Member Sited Renewable Source. Under this option, no application or reporting will be made to the NH Puc; therefore, no RECs are produced.

_____ B. *Allow NHEC to have the RECs.* NHEC *will not* charge a Monitoring Fee. With the cooperation and assistance from the Member, NHEC will complete and file an application with the NH Puc to request certification of the Member-Sited Renewable Source for production of RECs. Once approved by the NH Puc and in accordance with the rules and regulations, at least annually NHEC will report the generation of the Member-Sited Renewable Source to the NH Puc and to the New England Power Pool Generation Information System (GIS). Upon request, NHEC will provide the Member with an annual report of the generation of the Member-Sited Renewable Source. NHEC will retain ownership of the RECs reported. Member agrees to forfeit rights to market or advertise the Member-Sited Renewable Resource's facility as being powered by a renewable, alternative, clean, or environmentally friendly source, in accordance with applicable laws regarding REC ownership and retirement. Member warrants that it will not sell the RECs to any other entity.

_____ C. *Sell the RECs to NHEC.* NHEC *will* charge a monthly Monitoring Fee (Please refer to NHEC's current schedule of Fees, Charges & Rates for the current Monitoring Fee) as applicable at the time of billing. This fee will be charged as part of Member's normal billing from NHEC. This fee is subject to change by the NHEC Board of Directors. With the cooperation and assistance from the Member, NHEC will complete and file an application with the NH Puc to request certification of the Member-Sited Renewable Source for production of RECs. NHEC will report the generation of the Member-Sited Renewable Source to the NH Puc and to the New England Power Pool Generation Information System (GIS). NHEC will retain ownership of the RECs reported. Member agrees to forfeit rights to market or advertise the Member Sited Renewable Resource's facility as being powered by a renewable, alternative, clean or environmentally friendly source, in accordance with applicable laws regarding REC ownership and retirement. Member warrants that it has not sold the RECs to any other entity. After the annual report to the NH PUC has been completed and in accordance with Section X of NHEC's Terms and Conditions. Annually, NHEC will either pay the Member or credit the Member's electric service account, the applicable REC Payment Price for each REC produced measured in whole megawatt-hours of generation only.

_____ D. *Do Nothing.* Member elects to not choose any of the three options listed above and not involve NHEC in the REC process.

4. Additional Member Responsibilities

Member shall notify NHEC of its intent to change its option as determined in Article 2. Member and NHEC shall execute a replacement Agreement when such a change is made. Member shall notify NHEC of any transfer ownership of the service location. Member shall notify NHEC of any changes to equipment relative to the Member-Sited Renewable Source including, but not limited to, increase in capacity, removal or major renovation.

IN WITNESS WHEREOF, and intending to be legally bound, the Parties have executed this Agreement by their undersigned duly authorized representatives as of the Effective Date hereof.

Member

Signature: _____

Name: _____

Date: _____

Title: _____

Email: _____

To be completed by

New Hampshire Electric Cooperative, Inc.

Signature: _____

Name: _____

Date: _____

Title: _____

NEW HAMPSHIRE ELECTRIC COOPERATIVE (NHEC)

BATTERY STORAGE / BACKUP SUPPLEMENTAL FORM

Please complete this form if you are installing a battery storage / battery backup as part of your proposed interconnection facility or if you are adding to an existing interconnection facility.

Complete and submit this form along with the STEP 1 Net Metering Interconnection Application Form.

1. Will the battery be an addition to an existing member's interconnection facility? Yes ☐ No ☐

2. Battery Function

(DC Coupled - No Export) with Solar	Yes ☐ No ☐	(DC Coupled - Export)	Yes ☐ No ☐
(AC Coupled - Export) with Solar	Yes ☐ No ☐	(AC Coupled – No Export) with Solar	Yes ☐ No ☐
(AC Coupled - Export)	Yes ☐ No ☐	Other:	

3. Does the battery share an inverter with a Renewable Energy system? Yes ☐ No ☐
   If Yes, can the battery be charged from the NHEC electric distribution grid? Yes ☐ No ☐
   If No, how is the battery prevented from being charged by the electric distribution system?
   _____
   _____
   _____

4. Battery Information
   Battery System Manufacturer: _____Model: _____
   Quantity: _____ Battery Type: _____ Battery Voltage: _____
   System DC battery input inverter voltage: _____
   Battery Amp Hour 20 hours: _____ Battery Amp Hour 100 hours: _____
   System Power – kW 20 hours: _____ System Power – kW 100 hours: _____
   System Capacity – kWh 20 hours: _____ System Capacity – kWh 100 hours: _____
   Inverter UL1547 SA Listed: Yes ☐ No ☐ DC Source/Prime Mover: _____

5. Intended Use and Operation
   1. How will the system operate under normal and off-grid conditions – how will the battery disconnect and reconnect to the grid? _____
      _____
      _____
   2. What type of switching will be installed? _____
      Is it self-contained or will it utilize separate components (example: a self-contained device with DC to AC inverter, battery charger, and integrated AC transfer switch)? _____
      _____
      _____

6. Attach a one-line diagram to this document. Label the various equipment (inverter(s), charge controllers, switches, etc.).

I hereby certify that, to the best of my knowledge, all of the information provided in this document is true and correct.

Member Signature: _____Date:_____