



New Hampshire Public Utilities Commission

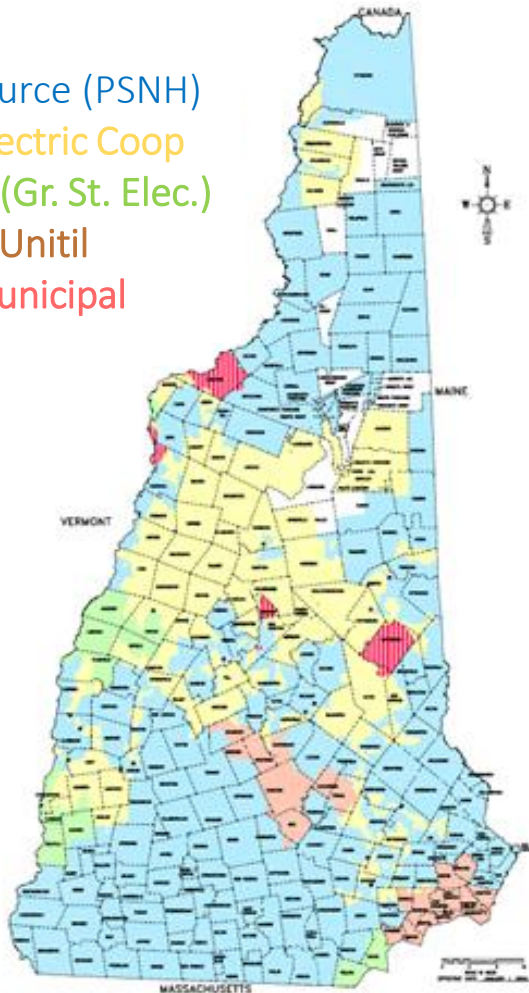
*Local Energy Solutions Webinar
Group Net Metering Updates:
An Overview of What You Need to Know*

Concord, New Hampshire

November, 2020

NH Electricity Basics: By the Numbers

Eversource (PSNH)
NH Electric Coop
Liberty (Gr. St. Elec.)
Unitil
Municipal

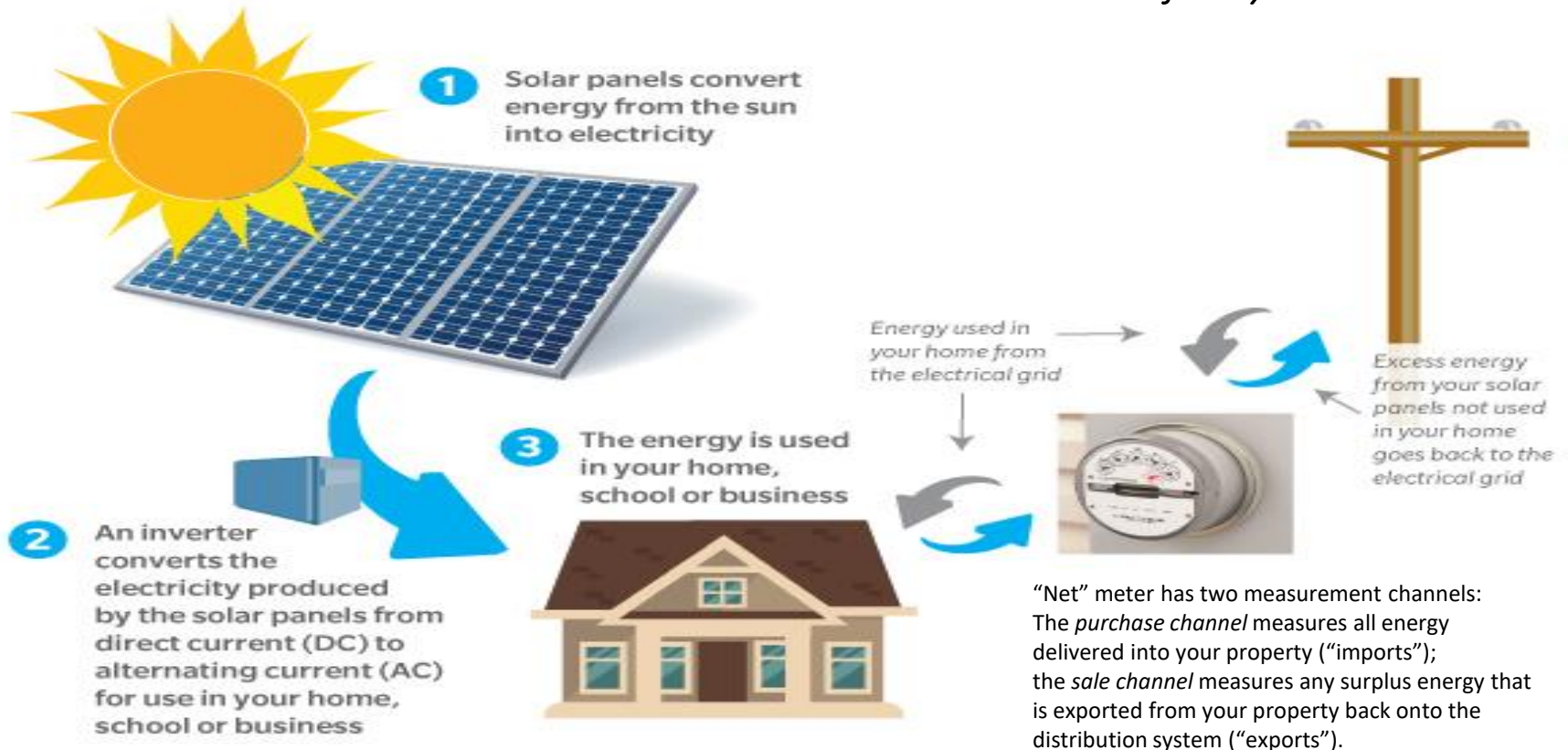


- 4 franchised electric companies
- 710,000 electric customers served
- 10.8 million MWh annual retail use
- \$1.75 billion annual retail sales
- 5 municipal electric companies
 - Not subject to Commission regulation
- Communities Served:
(http://www.puc.nh.gov/Consumer/communities_served.pdf)

Net Metering Basics

How Net Metering Works Photovoltaic Solar Example

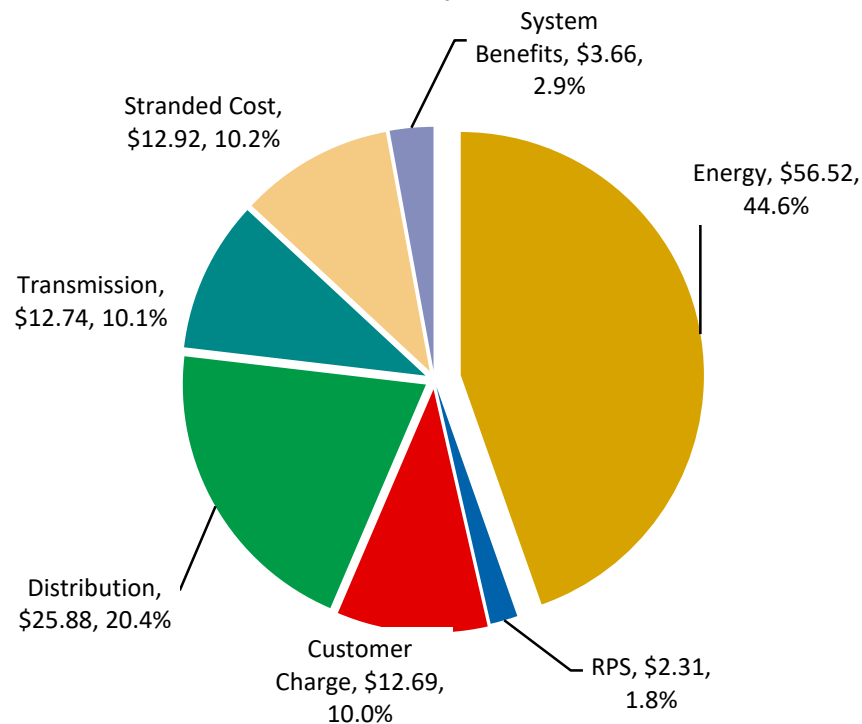
EVERSOURCE
Modified by PUC



Electric Rates – Bill Components

- Delivery
 - Customer Charge
 - Transmission (FERC)
 - Distribution (PUC)
 - NHEC as member-owned coop has minimal PUC rate regulation
- Energy
 - Varies by utility and time of year
 - Includes RPS and RGGI
- Other components
 - System Benefits Charge, Stranded Cost

Example Eversource Electric Rate Components
Resident Using 625 kWh/month
Total Bill: \$126.72



Based on rates in effect January 2019; Components vary by utility; RPS is forecasted

Net Energy Metering Tariff - Systems Less Than or Equal to 100 kW_{AC}

| Bill Component | NEM 1.0 (Standard NEM) | NEM 2.0 (Alternative NEM) |
|--|----------------------------|---|
| Customer Charge | Yes | Yes |
| Demand Charge (if applicable) | Yes | Yes |
| Default Service (Energy) | Full Credit | Full Credit |
| Distribution | Full Credit | 25% Credit |
| Transmission | Full Credit | Full Credit |
| System Benefits | Full Credit | No Credit |
| Stranded Cost | Full Credit | No Credit |
| Storm Recovery | Full Credit | No Credit |
| Credit Mechanism (end of each billing cycle) | Net kWh Carried Forward | kWh converted to monetary credit. Monetary credit carried forward as a bill credit. |

Volumetric charges based on kWh

“Non-bypassable Charges”
Under NEM 2.0 Tariff, these charges are applied to **all** kWh imports.

No credit is given for exported kWh.

For ease of reference, **NEM 1.0** (Standard NEM) refers to the net metering tariff in effect prior to September 1, 2017 and **NEM 2.0** (Alternative NEM) refers to the net metering tariff in effect beginning September 1, 2017.

Net Energy Metering Tariff - Systems > 100 kW_{AC} and ≤ 1 MW_{AC}

Volumetric charges based on kWh

| Bill Component | NEM 1.0 (Standard NEM) | NEM 2.0 (Alternative NEM) |
|---|---------------------------|--|
| Customer Charge | Yes | Yes |
| Demand Charges | Yes | Yes |
| Default Service (Energy) | Full Credit | Full Credit |
| Distribution | No Credit | No Credit |
| Transmission | No Credit | No Credit |
| System Benefits | No Credit | No Credit |
| Stranded Cost | No Credit | No Credit |
| Storm Recovery | No Credit | No Credit |
| Credit Mechanism (end of each billing cycle) | Net kWh Carried Forward | kWh converted to monetary credit. Monetary credit carried forward as a bill credit. |

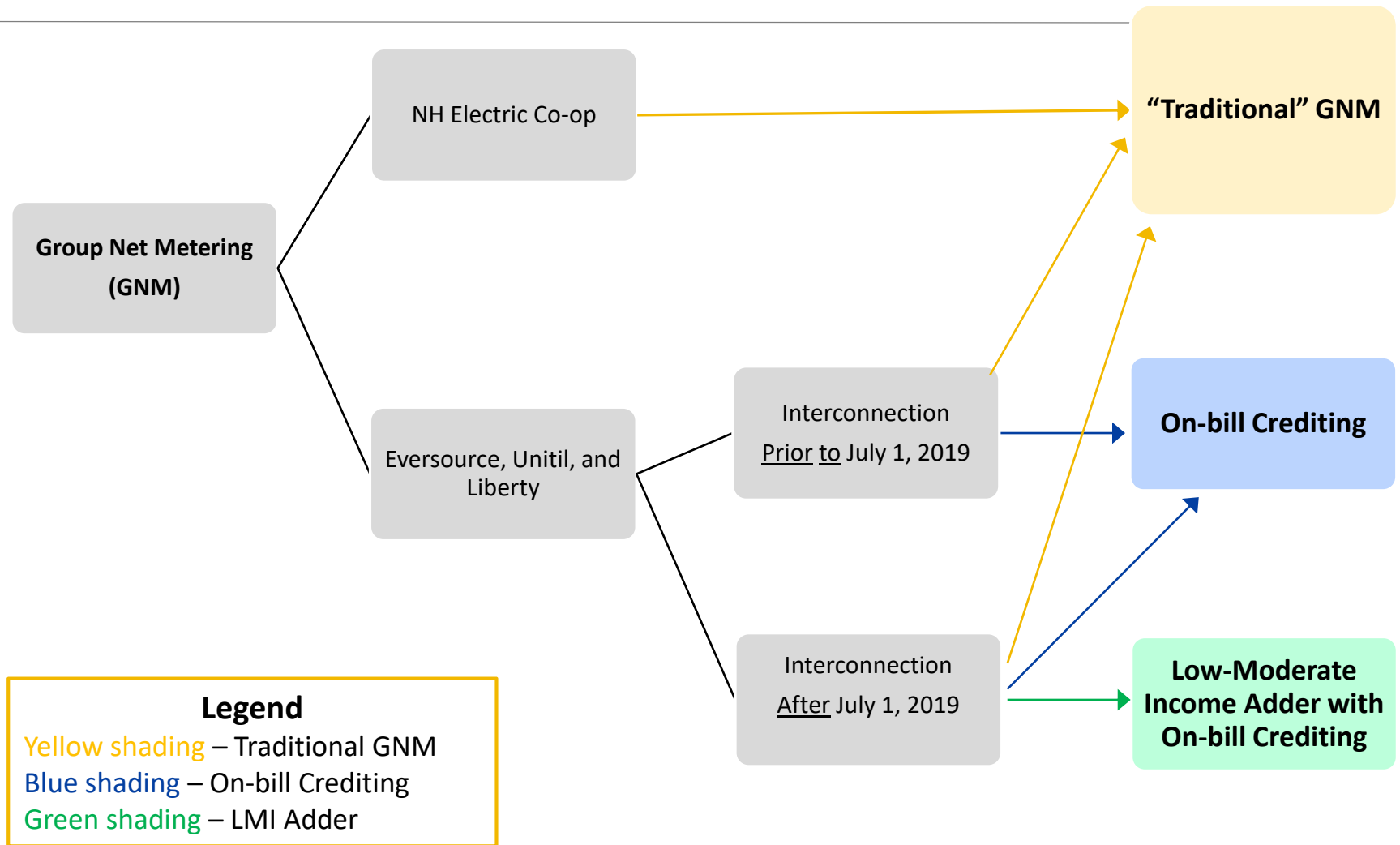
For ease of reference, **NEM 1.0** (Standard NEM) refers to the net metering tariff in effect prior to September 1, 2017 and **NEM 2.0** (Alternative NEM) refers to the net metering tariff in effect beginning September 1, 2017.

Group Net Metering Basics

- [RSA 362-A:9, XIV](#) permits net-metered renewable energy facilities (customer-generators) to share the proceeds from net excess electricity generation with other electric utility customers.
 - The customer-generator is the “Host”.
 - The utility customers that are part of the Host’s Group are “Members”.
- Rules and Requirements to qualify for Group Net Metering (GNM):
 - Total load of Host plus all Members must be greater than or equal to annual system generation.
 - Members must be located in the same distribution utility service territory as the Host.
 - The Host and the Members may purchase energy from a competitive supplier*.
 - Members may not have net metered renewable energy facilities.
 - GNM agreement must be in place between Host and Members.
 - Refer to [Puc 900 Administrative Rules](#) for details.
- Host must submit an application for group host registration to the PUC and Utility using Form PUC 909.09, or information required in Puc Admin. Rules 909.09.
 - Application may be submitted electronically for “traditional” groups but must be submitted electronically for groups electing on-bill crediting.
 - Application available for download at:
<http://www.puc.nh.gov/Sustainable%20Energy/GroupNetMetering.html>

* Purchasing energy from a competitive supplier may impact net metering compensation.

Group Net Metering Options



“Traditional” Group Net Metering

HOST

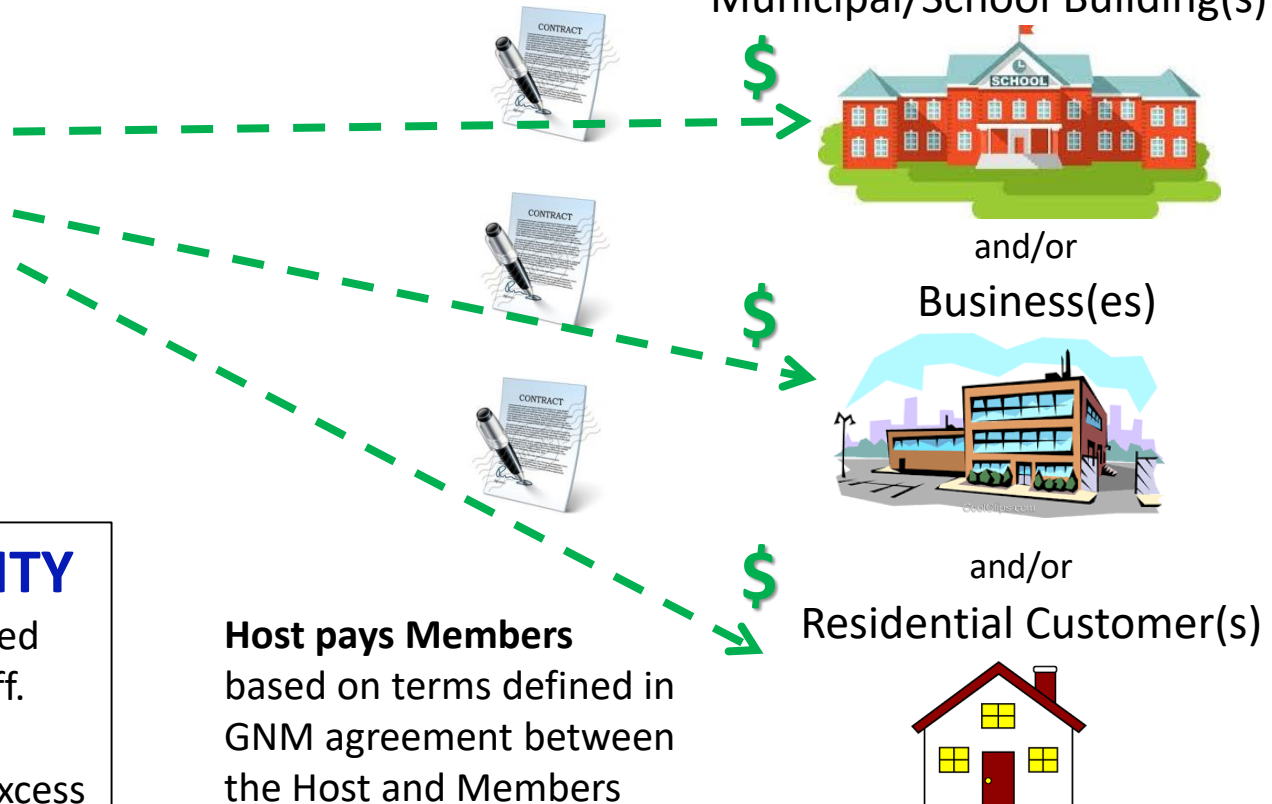


DISTRIBUTION UTILITY

Excess generation is valued based on applicable net metering tariff.

Utility pays Host monthly for excess generation.

GNM Agreement between Host & Members



MEMBERS

Within Single Distribution Utility Service Territory

Group Net Metering – On-bill Crediting

- On-bill Crediting is now an option for all existing and new groups.
 - Allocation of monetary net metering credit defined by the Host on Form PUC 909.09 (GNM Registration Form).
 - Allocation percentage assigned to the Host and each Member.
 - Total allocation percentage must equal 100 percent.
 - Each member's percentage allocation must be greater than 0.
 - Monthly net excess generation is converted to a monetary value based on applicable net metering tariff.
 - Distribution utility applies monetary bill credits to the Host and to each Group Member based on percentage allocations specified on Form PUC 909.09.
 - Monetary credit will be separately itemized on each customer's bill and deducted from the balance due after all applicable charges and all other credits.
 - Group changes allowed up to 4 times per year; and only once per calendar quarter.

Group Net Metering – On-bill Crediting

HOST



↑
Monetary
bill credit

DISTRIBUTION UTILITY

Excess generation is valued based on applicable net metering tariff.

Utility applies on-bill monetary credit on Member and/or Host electric bills each billing cycle based on pre-defined percentage allocations.

On-bill Credits to Host & Members

Host assigns allocation to Host and each Member as a % of total monetary credit

MEMBERS

Municipal/School Building(s)



and/or

Business(es)



and/or

Residential Customer(s)



Monetary
bill credit

Monetary
bill credit

Monetary
bill credit

Within Single Distribution Utility Service Territory

On-bill Crediting Example

▪ Group Net Metering Registration

- Host defines % allocations:
 - Host = 50%
 - Municipal Building = 20%
 - Business = 20%
 - Residential Customer = 10%

▪ Monthly Process by Utility:

- Monthly excess generation = 1,000 kWh
- 1,000 kWh is multiplied by the applicable net metering tariff
 - For example, net metering tariff = \$0.10/kWh
 - $1,000 \text{ kWh} \times \$0.10/\text{kWh} = \$100$
 - **Total Net Metering Credit = \$100**
- Apply predefined % allocation and provide on-bill monetary credit to Host and Members. For example:
 - Host = \$50 ($\$100 \times 50\%$)
 - Municipal Building = \$20 ($\$100 \times 20\%$)
 - Business = \$20 ($\$100 \times 20\%$)
 - Residential Customer = \$10 ($\$100 \times 10\%$)

On-bill Crediting Example

HOST



↑
\$50 bill credit

DISTRIBUTION UTILITY

Excess generation is valued based on applicable net metering tariff.

Ex. $1,000 \text{ kWh} \times \$0.10/\text{kWh} = \$100$

Utility applies on-bill monetary credit on Member and/or Host electric bills each billing cycle based on predefined percentage allocations.

On-bill Credits to Host & Members

Host assigns allocation to Host and each Member as a % of total monetary credit

MEMBERS

Municipal/School Building(s)



and/or

Business(es)



and/or

Residential Customer(s)



\$20 bill credit

\$20 bill credit

\$10 bill credit

Within Single Distribution Utility Service Territory

Group Net Metering – LMI Adder

- Adder for Low-Moderate Income (LMI) Community Solar Projects.
 - "Low-moderate income community solar project" means ground-mounted or rooftop solar arrays that directly benefit a group of at least 5 residential end-user customers, where at least a majority of the residential end-user customers are at or below 300 percent of the federal poverty guidelines. No more than 15 percent of the projected load for such project shall be attributable to non-residential end-user customers.
 - Available to LMI Group Net Metering projects interconnected on or after July 1, 2019.
 - Group must elect On-bill Crediting. Host may receive monthly payment from utility equal to the amount of the Host's monetary credit.
 - LMI Adder:
 - Additional \$0.030/kWh until July 1, 2021, and
 - Additional \$0.025/kWh thereafter

Group Net Metering – LMI Adder

- "Low-moderate income community solar project" Requirements:
 - Group must have at least 5 residential end-user customers.
 - Majority of residential members must have household income at or below 300% of Federal Poverty Guidelines.
 - No more than 15% of annual load may be attributable to non-residential end-user customers.
 - Affordable Housing project must provide direct benefits to tenants or residents.
 - No fees may be charged to LMI Members.
 - Host responsible for income verification.
 - On-bill Credit allocations to LMI Members and affordable housing projects must be greater than or equal to 12% of the total credit amount allocated to the Host and all group Members.
- Monthly net excess generation is converted to a monetary value based on applicable net metering tariff plus LMI Adder.
- Distribution utility applies monetary bill credits to the Host and to each Group Member based on percentage allocations specified on Form PUC 909.09.
 - Monetary credit will be separately itemized on each customer's bill and deducted from the balance due after all applicable charges and all other credits.
- Group changes allowed up to 4 times per year; and only once per calendar quarter.

LMI Community Solar Project

(Group Net Metering – LMI Adder with On-bill Crediting)

HOST



Monetary bill credit, including LMI Adder

Must meet all requirements for LMI community solar projects

Host must elect On-bill Crediting

LMI Adder applies to all excess generation

MEMBERS

Municipal Bldgs, Schools, & Businesses
(Maximum 15% load)



Affordable Housing



Residential Customers
(minimum 5, majority LMI)



LMI

LMI

Monetary bill credit

Monetary bill credit

Monetary bill credits

DISTRIBUTION UTILITY

Excess generation is valued based on applicable **alternative net metering tariff + LMI Adder**.

Utility applies on-bill monetary credit on Member and/or Host electric bills each billing cycle based on predefined percentage allocations.

Within Single Distribution Utility Service Territory

LMI Community Solar Project Example

(Group Net Metering – LMI Adder with On-bill Crediting)

LMI Community Solar Project (HOST)



DISTRIBUTION UTILITY

Monthly excess generation = **1,000 kWh**

1,000 kWh is multiplied by the applicable net metering tariff plus LMI Adder.

Example:

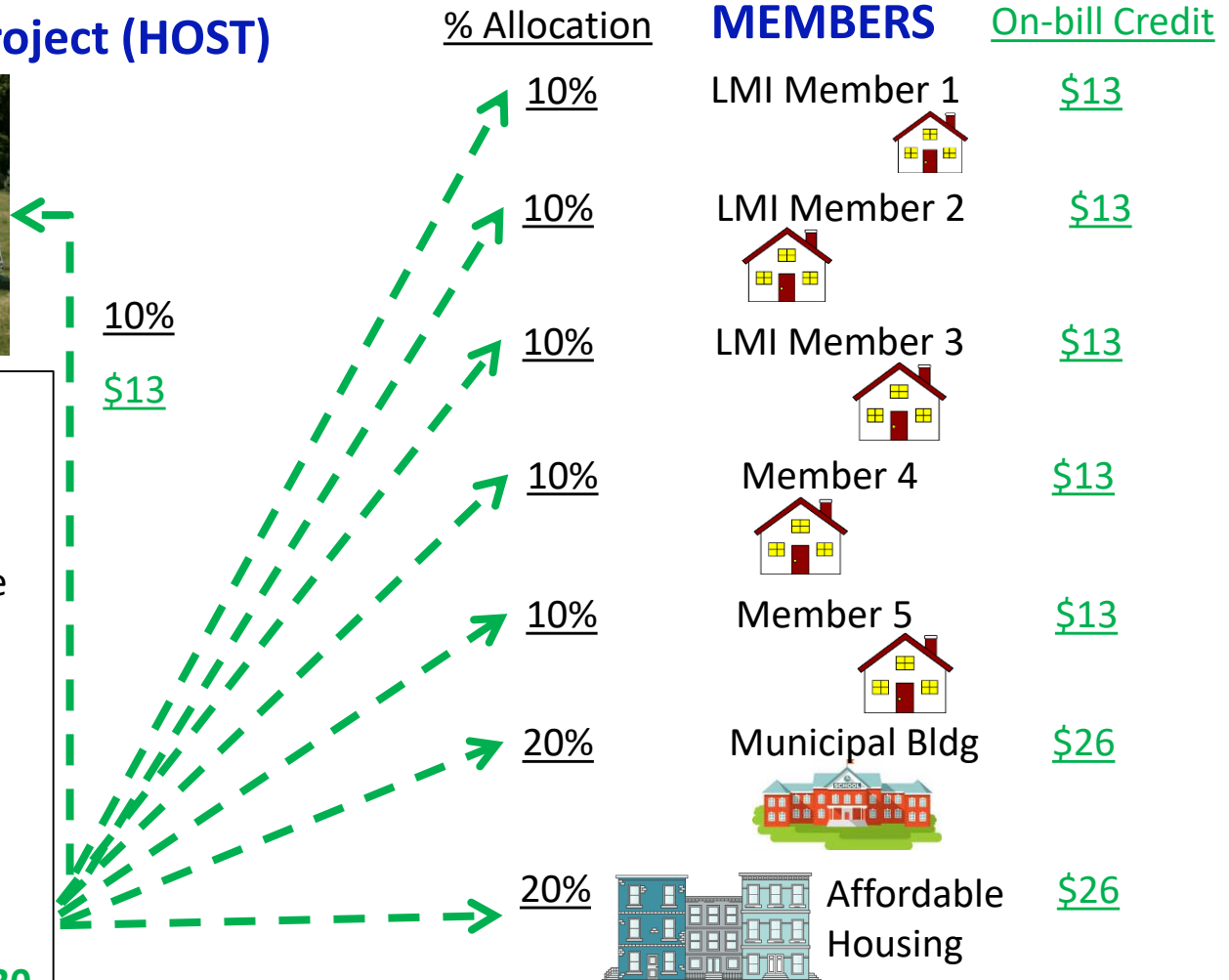
NEM Tariff \$0.10/kWh

LMI Adder + \$0.03/kWh

Total = \$0.13/kWh

Net Metering Credit

1,000 kWh x \$0.13/kWh = \$130



Form PUC 909.09 – Group Net Metering Registration

- Excel-based Application
- Application available for download at:

<http://www.puc.nh.gov/Sustainable%20Energy/GroupNetMetering.html>

Group Net Metering Registration

State of New Hampshire Public Utilities Commission
21 South Fruit Street, Suite 10
Concord, NH 03301
603-271-2431

Form PUC 909.09
Application to Register, Re-register, or Modify a Host Registration, for
Group Net Metering
(RSA 362-A:9, XIV)

*New Hampshire Electric Cooperative (NHEC) customers are not required to register for Group Net Metering with the Commission but instead must register directly with NHEC.

Instructions:

- i) This form is provided as a convenience for group net metering (GNM) registration or re-registration. It may also be used to make changes or modifications to a GNM registration utilizing on-bill crediting. All information specified under Puc Rule 909.09 is required when applying for GNM registration (or re-registration), or when modifying a GNM registration (e.g., host information, members, credit mechanism, etc.). The use of this form not required.
- ii) A host participating in on-bill crediting may make changes to group membership or credit percentage allocations up to 4 times each year, and only once in each calendar quarter ending March 31, June 30, September 30, and December 31.
- iii) Select the GNM registration type in Section A (Host Information) and complete all applicable sections.
- iv) This document may be signed electronically, pursuant to RSA 294-A.
- v) The document and any attachments shall be filed electronically in a format compatible with the computer system of the Commission, per Puc 203.03, or through the following email address:
PUC-GroupNetMetering@puc.nh.gov
A copy shall also be sent to the Host's distribution utility.
- vi) The Commission also shall accept the document and any attachments through U.S. mail, by overnight express

[Instructions for Form 909.09](#)

A. Host Information

B. Member Information

C. Group Summary

D. GNM Certifications

E. LMI Certifications

Form Sections

Instructions

- A. Host Information
- B. Member Information
- C. Group Summary
- D. Group Certifications
- E. LMI Certifications

Group Net Metering Registration, continued

| | | | |
|---|--------|------|-------------------|
| A1. Indicate (check) the Registration Type below: | | | |
| <input type="checkbox"/> New Registration | | | |
| <input type="checkbox"/> Previously-approved Registration: <input type="checkbox"/> Re-registering, or <input type="checkbox"/> Modifying Host and/or Member Info | | | |
| <i>Previously approved registrations provide Registration Number</i> | | | |
| A2. Person Responsible for Responding to Application Inquiries | | | |
| | First | Last | |
| Name: | | | Phone: |
| Email Address: | | | Phone2: |
| A3. Person Responsible for Ongoing Group Registration Inquiries | | | |
| Name: | | | Phone: |
| Email Address: | | | Phone2: |
| A4. Facility Owner/Operator Information | | | |
| Facility Owner Name: | | | Phone: |
| Email Address: | | | Phone2: |
| Operator Name (if different): | | | Phone: |
| Email Address: | | | Phone2: |
| A5. Host Information | | | |
| Name or Trade Name: | | | Phone: |
| Email Address: | | | Phone2: |
| Utility Service Address: | | | Town: |
| | State: | NH | Zip Code: |
| Billing Address: (if different than Service Address): | | | Town: |
| | State: | NH | Zip Code: |
| Distribution Utility Name: | | | Rate Class: |
| Utility Account #: | | | Electric Meter #: |
| Host's Website Address (if applicable): | | | |
| Utility ID# of Host Facility: | | | |
| A6. Host Facility, Production, and Usage Information | | | |
| Renewable energy source (e.g., Solar, Hydro, Wind, etc.): | | | |
| Generation capacity of host's facility (Maximum kW AC for inverter-based facilities, kW nameplate capacity otherwise): | | | kW |
| Host facility's actual annual output, if known, or projected annual output (kWh/year): | | | kWh |
| Host's total historic annual load (kWh/year) (if applicable): | | | kWh |
| Host's projected annual load (kWh) (if different from historic): | | | kWh |
| Facility initial operational date: | | | |
| Group registration is electing on-bill monetary credits (Y/N) | | | |
| If electing on-bill monetary credits, indicate the percentage (xx.xx%) of the net metering monthly credit to be allocated to host: | | | |
| Host meter's utility rate class is Residential? (Y/N) | | | |
| Host is an Affordable Housing Project? (Y/N) | | | |
| Host is an LMI customer? (Y/N) | | | |
| Host is an Affordable Housing Project? (Y/N) | | | |
| Please continue to Sections (tabs) B, C, D, and E (if applicable). | | | |

■ Section A. Host Information

■ Registration Type

- New Registration
- Previously-approved Registration
 - Re-registration
 - Modifying Host and/or Member Information

■ Host and Contact Information

■ Facility Information

Group Net Metering Registration, continued

■ Section B. Member Information

- Member Information
- LMI Community Solar Project - LMI Designations
- On-bill Crediting Allocations

| MEMBER INFORMATION | | | | | | | | COMM SOLAR | | ON-BILL CRD | | BILLING ADDRESS (IF DIFFERENT) | |
|--------------------|-------------|--------------------------------|------|-------------------|---------|------------------------------------|--|------------------|-----------|--|------|--------------------------------|------|
| No. | Member Name | Utility Service Street Address | Town | Utility Account # | Meter # | Historic Annual Load (Usage) (kWh) | Projected Annual Load (Usage) (kWh) (if different) | RES (Y/N) or AHP | LMI (Y/N) | % Monthly Net Metering Credit Allocation | No. | Billing Address | Town |
| Host | | | | | | | | N | | 0.00% | Host | | |
| 1 | | | | | | | | | | | 1 | | |
| 2 | | | | | | | | | | | 2 | | |
| 3 | | | | | | | | | | | 3 | | |
| 4 | | | | | | | | | | | 4 | | |
| 5 | | | | | | | | | | | 5 | | |
| 6 | | | | | | | | | | | 6 | | |
| 7 | | | | | | | | | | | 7 | | |
| 8 | | | | | | | | | | | 8 | | |
| 9 | | | | | | | | | | | 9 | | |
| 10 | | | | | | | | | | | 10 | | |
| 11 | | | | | | | | | | | 11 | | |
| 12 | | | | | | | | | | | 12 | | |
| 13 | | | | | | | | | | | 13 | | |
| 14 | | | | | | | | | | | 14 | | |
| 15 | | | | | | | | | | | 15 | | |
| 16 | | | | | | | | | | | 16 | | |
| 17 | | | | | | | | | | | 17 | | |
| 18 | | | | | | | | | | | 18 | | |

Group Net Metering Registration, continued

| SUMMARY FOR ALL GROUP REGISTRATIONS | |
|---|---|
| Group Production and Usage Summary Information and Comparison | |
| Renewable Energy Source: | 0 |
| Generation Capacity of Host's Facility (kW): | |
| Host Facility's Actual or Projected Annual Output (kWh): | - |
| Host's Historic Annual Usage (kWh): | - |
| Host's Projected Annual Usage (kWh): | - |
| Total Historic Annual Usage of All Group Members (excluding Host): | - |
| Total Projected Annual Usage of All Group Members (excluding Host): | - |
| Total Historic Usage of Group: | - |
| Total Projected Usage of Group: | - |
| The total annual usage of all group members (including the host) must be equal to, or exceed, the host facility's actual or projected annual output. | |

| SUMMARY FOR GROUPS ELECTING ON BILL CREDITING | |
|---|-------|
| On-Bill Crediting: % Net Metering Credit Allocation Summary | |
| % Allocation to Host | 0.00% |
| % Allocation to All Members | 0.00% |
| Total Group % Allocation | 0.00% |
| If participating in on-bill crediting, the total group % allocation must equal 100.00% | |

| SUMMARY FOR LOW-MODERATE INCOME COMMUNITY SOLAR PROJECT GROUPS | |
|--|--------------------------|
| Total Number of Residential End Users | 0 |
| % of Load Attributable to Residential and Affordable Housing End Users | 0.00% |
| % of Residential End Users defined as Low-Moderate Income | 0.00% |
| % of Monthly Net Metering Credits Allocated to Low-Moderate Income End Users | 0.00% |
| Summary of Additional Requirements for LMI Community Solar Project Group Registrations | |
| | Check |
| Total number of residential end users must be greater than or equal to 5 | <input type="checkbox"/> |
| Percentage of load attributable to residential end users and affordable housing projects, if any, must be greater than or equal to 85.00% | <input type="checkbox"/> |
| Percentage of residential end users defined as low-moderate income must be greater than or equal to 50% | <input type="checkbox"/> |
| Percentage of net metering credits allocated to low-moderate income residential end users or affordable housing projects must be greater than or equal to 12.00% | <input type="checkbox"/> |

- Section C. Group Summary

- Auto-filled Page (*protected*)
- Summary Information
 - Group Data
 - On-bill crediting, if applicable
 - LMI Community Solar Project, if applicable

Group Net Metering Registration, continued

■ Sections D and E. Certifications and Signatures

■ Section D: Group Certifications for All Registrations

- Additional certifications for on-bill crediting

■ Section E: Additional Certifications for LMI Community Solar Project

SECTION D. GNM CERTIFICATIONS

All group registrations must complete this section.

By signing below, I certify to the following (please check each box):

- I have provided a copy of this application, with any and all attachments, to the distribution utility;
- each group member and the host are a customer of the same distribution utility;
- each group member and the host have signed an agreement that complies with Puc 909.05 (unless the host and group member are the same person or entity and an agreement therefore is not required);
- the total historic or projected annual load of the members together with the host exceeds the projected annual output of the host's facility;
- none of the group members is a customer-generator;
- on or before April 1 of each year, beginning the year after the host received a registration number, the host shall provide to the Commission, with a copy to the distribution utility, an annual report containing the information defined in Puc 909.10, covering the immediately preceding calendar year.

Note: Hosts with residential systems with a maximum generation capacity less than 15 kilowatts (max. AC) are not required to submit an annual group host report, unless it is a low-moderate income community solar project.

If this group is NOT electing on-bill monetary credits, I certify to the following (please check the box):

- if a member is a member of more than one group, the portions of that member's load which are allocated to each host, when combined, shall not exceed that member's total load.

If this group is electing to receive on-bill monetary credits (please check the boxes):

- the specified percentage allocations for the host and all members total 100% and each group member's percentage allocation is greater than zero; and
- no member is also a member of any other group at the time of registration.

I have the authority to sign and submit this application on behalf of the host. By signing, I certify that the contents of the application are true, accurate, and complete, to the best of my knowledge and belief.

| Date | Applicant Printed Name | Applicant Signature |
|------|------------------------|---------------------|
| | | |

SECTION E. ADDITIONAL CERTIFICATIONS FOR LOW-MODERATE INCOME COMMUNITY SOLAR PROJECTS

Only groups that are Low-Moderate Income Community Solar Projects must complete this section.

By signing below, I certify to the following (please check each box):

- the group meets the requirements of Puc 909.13(d);
- all member agreements meet the requirements of Puc 909.05(e);
- the specified on-bill credit percentage allocations meet the requirements of Puc 909.12(c) through (e) and Puc 909.13(h);
- no member is also a member of any other group at the time of registration;
- documentation is attached describing the host's income verification procedure for the group;
- documentation is attached demonstrating that each affordable housing project member qualifies as such under Puc 902.01, or there are no affordable housing project members; and
- documentation is attached for each affordable housing project member describing the direct, quantifiable benefits to be provided to the tenants or residents of that project pursuant to Puc 909.13(e), or there are no affordable housing project members.
- no agreement in any way prohibits or restricts the members of the low-moderate income community solar project group who are residential end-user customers with household income at or below 300 percent of the federal poverty guidelines from leaving the group, consistent with Puc 909.13(d)(8).

I have the authority to sign and submit this application on behalf of the host. By signing, I certify that the contents of the application are true, accurate, and complete, to the best of my knowledge and belief.

| Date | Applicant Printed Name | Applicant Signature |
|------|------------------------|---------------------|
| | | |

Group Net Metering – Reporting Requirements

- Annual Reporting
 - Host is required to file an annual report with the PUC and Utility
 - Annual report is not required for residential systems less than 15 kW in capacity (size)
 - Report includes:
 - Host Information
 - Host System Generation
 - Net Generation to Grid (i.e., excess generation)
 - Host Load
 - Actual Load of Each Member
 - Total Load of Members
 - Additional required information for LMI Community Solar Projects
 - Report Due:
 - No later than April 1st of each year

Useful Links

- [RSA 362-A:9](#): NH statute on net metering
- [Puc 900 Administrative Rules](#): Rules governing net metering and group net metering
 - Group Net Metering: See section 909
 - Net Metering Tariffs: See section 903.02
- [PUC Group Net Metering webpage](#)
 - Form PUC 909.09 – Group Net Metering Registration Form
 - Annual Report Form
- Utility tariffs available at: [Eversource](#), [Liberty](#), [Unitil \(Residential\)](#), [Unitil \(Commercial\)](#)
- [PUC page on historical residential electricity prices, default service rates, & information on PPA escalation rates](#)