

NEW HAMPSHIRE UPDATE ON STATE DISTRIBUTED GENERATION POLICY DRIVERS

**ISO-NE Distributed Generation Forecast Working Group
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Topics

- Net Metering
 - Solar PV Installed Capacity Data and Trend
 - New Alternative Net Metering Tariff

- New Hampshire Distributed Generation Policy Drivers
 - Recent Legislative Actions
 - Legislative Studies
 - 2018 Legislation
 - Retained Bills
 - Filed Legislative Service Requests

Disclaimer

Content reflects staff observations and analysis, and does not necessarily reflect the position of the State of New Hampshire, the Public Utilities Commission (PUC), or the PUC Commissioners.

Net Metering

- Net Metering statute enacted in 1998 (RSA Section 362-A:9)
- Required electric utilities to offer net metering to customers who own or operate renewable electric or combined heat and power (CHP) generating facilities
- Established statewide 50 MW cap for net energy metering
 - Individual utility caps calculated by multiplying statewide cap by utility's share of "total 2010 annual coincident peak energy demand."
 - Expanded statewide limit from 50 MW to 100 MW (2016 HB 1116)
- Established 4 MW statewide cap for CHP

Net Metered Solar Facilities as of August 2017 (preliminary)

Electric Utility	Total Installs to Date*	Total Installed Capacity (MW) *
Liberty Utilities	701	5.970
New Hampshire Electric Cooperative	809	6.847
Eversource Energy	4,888	47.939
Unitil Energy Systems, Inc.	385	3.535
Total Net Metered Facilities	6,783	64.291

*Based on the utility reports to DOE (EIA Form 826) including system expansions. (August 2017)

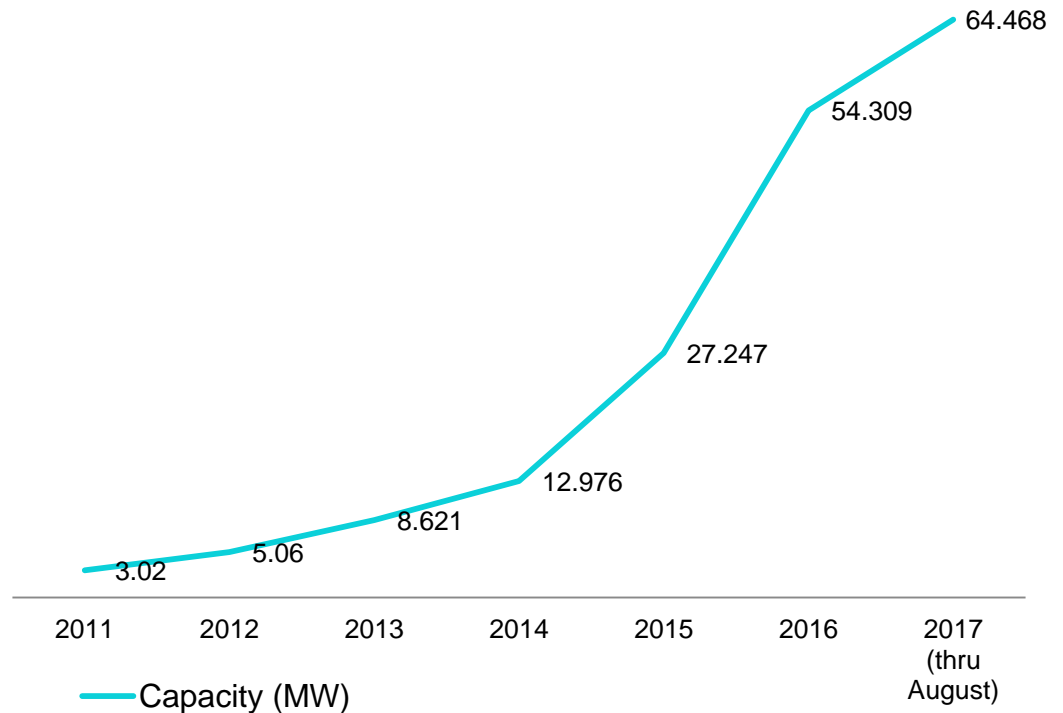
Net Metering Capacity Trend (Solar PV only)

Net Metered Capacity (Solar PV)

Installed PV Statewide:

3.020 MW (December 2011)
5.060 MW (December 2012)
8.621 MW (December 2013)
12.976 MW (December 2014)
27.247 MW (December 2015)
54.309 MW (December 2016)
64.468 MW (August 2017)

Net Metered Solar PV Capacity (MW)



Net Metering Docket (DE 16-576)

- House Bill 1116 - Enacted May 2, 2016
- Directed the Commission to initiate a proceeding to develop new alternative net metering tariffs, which may include other regulatory mechanisms and tariffs for customer-generators
- Order issued in June 2017 to adopt new alternative net metering tariff
(Commission Order No. 26,029)

New Tariff Overview

- Start Date for New Alternative Net Metering Tariff is September 1, 2017
- “We therefore approve a September 1, 2017, effective date for the new net metering tariff, such that any customers with DG projects receiving a utility net metering capacity allocation on or after that date (and any DG projects queued prior to that date in excess of the applicable statutory cap set forth in RSA 362-A:9, I) will be subject to the new net metering tariff provisions once the utility is capable of implementing those new provisions.”
- Existing NEM systems are grandfathered through 2040.
- New systems (under new tariff) are also grandfathered through 2040.
- New tariff applicable for only Eversource, Unitil and Liberty Utilities; and not for New Hampshire Electric Cooperative.
- Monthly Netting is maintained - all imports and exports are netted on a monthly billing basis.
- Shift from kWh credits to monetary credits
- Credits carry forward on customer bill

Net Energy Metering Tariff Systems Less Than or Equal to 100 kW

- Customer-generators will now pay non-bypassable charges for all imported energy (per kWh) without any netting:
 - System Benefits Charge
 - Storm Recovery
 - Stranded Cost Recovery
 - Electricity Consumption Tax (until repeal effective)
- For energy produced and used behind the meter, full retail rates are effectively offset
- For energy exported to the grid on a net (monthly) basis, customer-generator will receive credit for the full energy service (E) rate, the full transmission (T) rate, and 25% of the distribution (D) rate.
- New Alternative Net Metering Net Export Credit =
$$E + T + \frac{1}{4}(D)$$

Net Energy Metering Tariff Systems Less Than or Equal to 100 kW

Bill Component (Charge)	NEM 1.0 (Original)	NEM 2.0 (New)
Customer Charge	Standard Charge Applies	Standard Charge Applies
Energy	Full Credit	Full Credit
Distribution	Full Credit	25% Credit
Transmission	Full Credit	Full Credit
SBC	Full Credit	No Credit
Stranded Costs	Full Credit	No Credit
Storm Recovery	Full Credit	No Credit
Credit Mechanism & Carry Forward	Net kWh Credits Carry Forward	kWh Converted to Monetary Credit (monthly) Credits Carry Forward

Light blue shading indicates a change in net metering reimbursement.

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

Net Energy Metering Tariff Systems Greater Than 100 kW and Less Than or Equal to 1,000 kW

Bill Component (Charge)	NEM 1.0 (Original)	NEM 2.0 (New)
Customer and Demand Charges	Standard Charges Apply	Standard Charges Apply
Energy	Full Credit	Full Credit
Distribution	No Credit	No Credit
Transmission	No Credit	No Credit
SBC	No Credit	No Credit
Stranded Costs	No Credit	No Credit
Storm Recovery	No Credit	No Credit
Credit Mechanism & Carry Forward	Net kWh Credits Carry Forward	Net kWh Converted to Monetary Credit (monthly) Credits Carry Forward

Light blue shading indicates a change in net metering reimbursement.

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

State Policies Drivers and Programs for DG

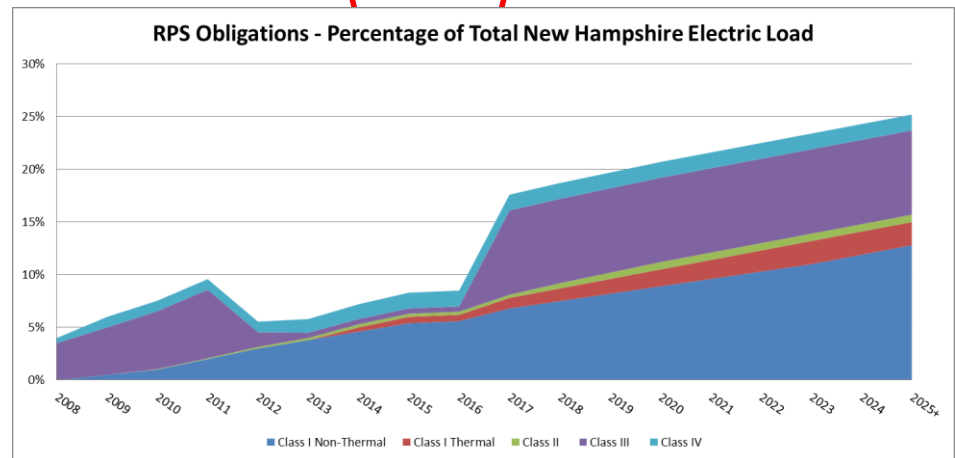
- New Hampshire's Renewable Portfolio Standard (RPS) (RSA 362-F)
 - SB129 (2017)
 - Increases Class II (Solar) RPS requirement from 0.3% to 0.7% by 2020
 - Requires 15% of Renewable Energy Fund allocated to low-moderate income programs; including community solar
 - Rebates and Grants supported by the Renewable Energy Fund (REF)
 - FY17 = ~\$4.2 million
 - FY18 = ~\$3.6 million
 - Renewable energy certificates (RECs) awarded to eligible, certified, renewable generators
- New Hampshire's Net Metering & Group Net Metering (RSA 362-A:9)

Renewable Portfolio Standard Requirements

Calendar Year	Total RPS Requirement	Class I Non-Thermal	Class I Thermal	Total Class I	Class II	Class III	Class IV
2016	8.50%	5.60%	0.60%	6.20%	0.30%	0.50%	1.50%
2017	17.60%	6.80%	1.00%	7.80%	0.30%	8.00%	1.50%
2018	18.70%	7.50%	1.20%	8.70%	0.50%	8.00%	1.50%
2019	19.70%	8.20%	1.40%	9.60%	0.60%	8.00%	1.50%
2020	20.70%	8.90%	1.60%	10.50%	0.70%	8.00%	1.50%
2021	21.60%	9.60%	1.80%	11.40%	0.70%	8.00%	1.50%
2022	22.50%	10.30%	2.00%	12.30%	0.70%	8.00%	1.50%
2023	23.40%	11.00%	2.20%	13.20%	0.70%	8.00%	1.50%
2024	24.30%	11.90%	2.20%	14.10%	0.70%	8.00%	1.50%
2025+	25.20%	12.80%	2.20%	15.00%	0.70%	8.00%	1.50%

Notes:

- Class I = new renewables
- Class II = new solar



RPS & Net Metering Legislative Updates

Legislative Studies

- SB51 Study Committee Results
- 2018 Commission Review of RPS (per statute)

Retained Bills

- Relative to minimum electric renewable portfolio standards (HB 114)
- Relative to electric renewable energy classes (HB 141)

2018 Legislative Service Requests Filed

- Relative to town revolving funds for group net metering (HB 1202)
- Relative to taxation of solar array owners (HB 1563)
- Relative to group host net energy metering (LSR 2866)
- Relative to renewable energy fund incentive payments.(LSR 2885)

Thank You!

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