

# **NEW HAMPSHIRE UPDATE ON STATE DISTRIBUTED GENERATION POLICY DRIVERS**

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**ISO-NE Distributed Generation Forecast Working Group  
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**Karen Cramton, Director  
New Hampshire Public Utilities Commission  
Sustainable Energy Division**



# Topics

- Net Metering
  - Solar PV Installed Capacity Data and Trend
  - New Hampshire RPS & Net Metering Credit for Class II (Solar) Compliance
  - Alternative Net Metering Tariff Docket Update
  
- New Hampshire Distributed Generation Policy Drivers
  - 2018 Legislative Update
  - 2019 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 Metered Solar Facilities as of September 2018

Electric Distribution Utility	Total Installs to Date*	Total Installed Capacity (MW) *
Liberty Utilities	462	4.729
New Hampshire Electric Coop.	902	7.374
Eversource Energy	5,762	57.447
Unitil Energy Systems, Inc.	806	7.643
<b>Total Net Metered Facilities</b>	<b>7,932</b>	<b>77.193</b>

\*Based on the utility reports to DOE EIA-861M (formally EIA-826) including system expansions.  
(downloaded November 2018)

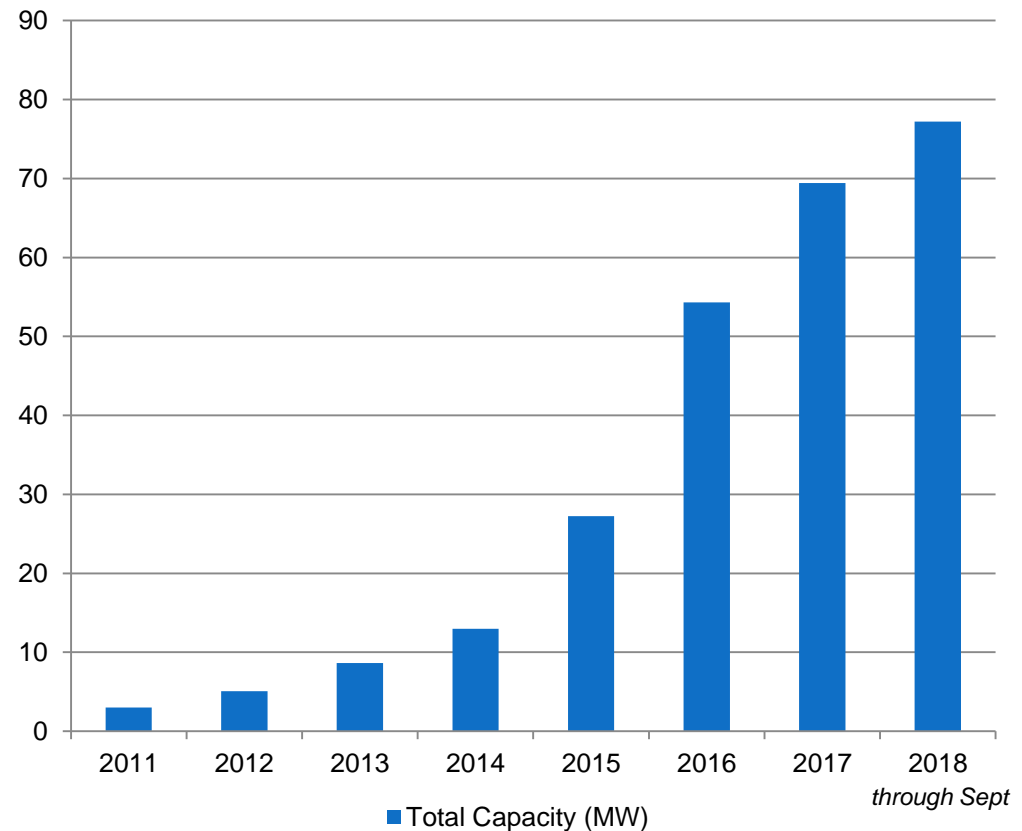
# Net Metering Capacity Trend (Solar PV only)

## Net Metered Capacity (Solar PV)

### Installed PV Statewide:

3.020 MW (Dec. 2011)  
5.060 MW (Dec. 2012)  
8.621 MW (Dec. 2013)  
12.976 MW (Dec. 2014)  
27.247 MW (Dec. 2015)  
54.309 MW (Dec. 2016)  
69.421 MW (Dec. 2017)  
77.193 MW (*through Sep. 2018*)

### Net Metered Solar PV Capacity



# Net Metered PV – Annual Increases

Year	Total Capacity (MW)	Year-to-Year Increase (MW)
2011	3.02	3.02
2012	5.06	2.04
2013	8.621	3.561
2014	12.976	4.355
2015	27.247	14.271
2016	54.309	27.062
2017	69.421	15.112
2018	77.193	7.772

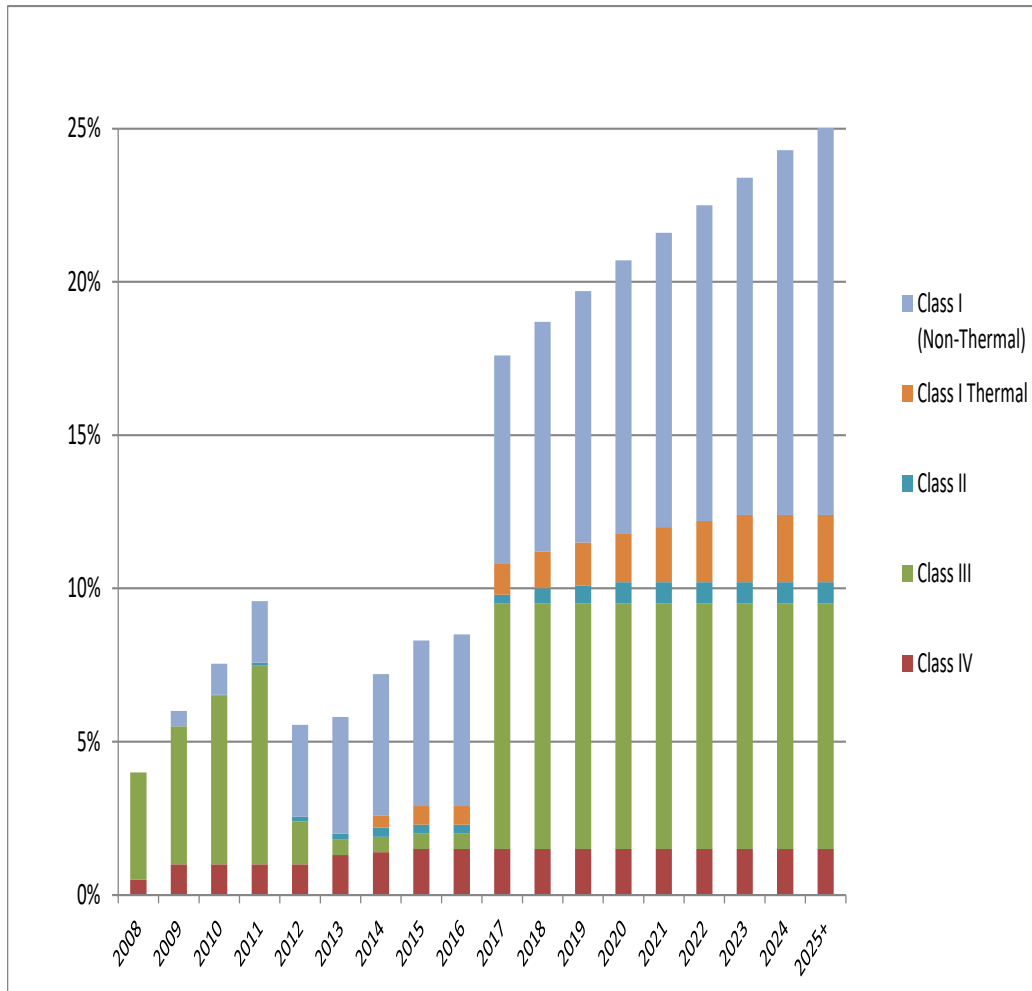
# NEM Tariff Overview & Net Metering Docket (DE 16-576)

- Effective Date for New Alternative Net Metering Tariff is September 1, 2017
  - 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; not for New Hampshire Electric Cooperative.
  - Monthly Netting is maintained - all imports and exports are netted on a monthly billing basis.
  - Shift from kWh credit to monetary bill credit
  - Credit carries forward on customer bill
  
- Pilot programs and studies continue

# State Policies and Programs

- New Hampshire's RPS (RSA 362-F)
  - Class II (Solar) RPS requirement : 0.3% in 2017, 0.5% in 2018, 0.6% in 2019, and 0.7% in 2020 and beyond
  - Rebates and Grants supported by the Renewable Energy Fund (REF)
    - FY18 = ~\$3.6 million
    - FY19 = ~\$5.2 million
  - Renewable energy certificates (RECs) awarded to eligible, certified, renewable generators
- New Hampshire's Net Metering & Group Net Metering (RSA 362-A:9)

# New Hampshire's RPS Requirements & Class II Net Energy Metering Credit



Class II Solar

2017 = 0.3%  
2018 = 0.5%  
2019 = 0.6%  
2020+ = 0.7%

Class II NEM Credit

2015 = 0.1784%  
2016 = 0.2484%  
2017 = 0.4026%  
2018 and beyond = ? %

NH NEM PV = ~77 MW  
NH Sited Class II Certified  
Facilities = ~48 MW



# RPS & Net Metering Legislative Updates

## 2018 Legislation

### ➤ **Group Net Metering**

- Senate Bill 321 removes the requirement that net metering group host customers (i.e., hosts and members) be default service customers. However, the host and the members must still be located in the same distribution utility service territory.
- Senate Bill 367 removes the review by the Commission of net metering group host agreements, and eliminates certain reporting and payment adjustments for small residential group host systems with an interconnected capacity less than 15 kilowatts.

### ➤ **Net Metering**

- Senate Bill 446 – relative to net energy metering limits for customer-generators  
*Facilities eligible for net metering Increases from 1 MW to 5 MW*
  - Vetoed by Governor
  - Veto Sustained by House
  - Veto Overridden by Senate

# Commission's RPS 2018 Review

## Summary of Relevant Recommendations

- **Maintain the existing class obligations** for policy consistency and predictability for the renewable energy industry, particularly given the limited ability of New Hampshire to significantly affect the regional REC market and the potential for increased rate impacts if the class obligations were to increase.
- **Retain current Class structure as it supports policy consistency and market predictability.** A multiple class structure also maintains policy flexibility.
- Consider amending RSA 362-F:5 to require the **Commission to conduct a review of class requirements and other aspects of the RPS in 2021** and report findings to the General Court by November 1, 2021. Other aspects for review, discussion, and recommendation should focus on and include, but are not limited to: transitioning “new” facilities to “existing” facilities, and how corresponding RPS targets might be adjusted; grandfathering current long-term contracts; and increasing RPS requirements beyond 2025. An additional review in 2021 supports market stability by providing advance insight and direction to encourage continued renewable energy development.
- Continue to provide a **net metering credit toward compliance** for interconnected facilities that net meter but do not apply for REC authorization. Consider amending RSA 362-F:6, II-a to reduce the capacity factor rating used to estimate yearly production for customer-sited sources that net meter but not REC-certified for Class I or Class II. **Decrease the capacity factor rating to 14%.**
- Consider amending RSA 362-F:10, V to **allow the Commission greater flexibility in the residential small renewable generation incentive program design.**

# RPS & Net Metering

## 2019 Legislative Service Requests

### **LSRs Filed** *(as of December 3, 2018)*

- 2019-0001 (House) – establishing a committee to study requirements for committing New Hampshire to a goal of 50 percent renewable energy by 2040
- 2019-0090 (House) - relative to net energy metering limits for customer-generators
- 2019-0136 (House) – establishing a committee to study changes in law necessary to allow for micro-grids in electrical supply
- 2019-0177 (Senate) - relative to net energy metering limits for customer-generators
- 2019-0207 (House) – establishing a task force on applications of micro-grids in electrical supply
- 2019-0540 (House) – relative to the New Hampshire energy strategy
- 2019-0563 (House) – relative to the definitions of solar energy systems and wind-powered energy systems for assessed value of real estate exemptions

# Thank You!

## Contact Information:

Karen Cramton, Director  
Sustainable Energy Division  
NH Public Utilities Commission  
(603) 271-2431  
[Karen.cramton@puc.nh.gov](mailto:Karen.cramton@puc.nh.gov)

# 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
<b>Distribution</b>	<b>Full Credit</b>	<b>25% Credit</b>
Transmission	Full Credit	Full Credit
<b>SBC</b>	<b>Full Credit</b>	<b>No Credit</b>
<b>Stranded Costs</b>	<b>Full Credit</b>	<b>No Credit</b>
<b>Storm Recovery</b>	<b>Full Credit</b>	<b>No Credit</b>
<b>Credit Mechanism &amp; Carry Forward</b>	<b>Net kWh Credits Carry Forward</b>	<b>kWh Converted to Monetary Credit (monthly) Credits Carry Forward</b>

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
<b>Credit Mechanism &amp; Carry Forward</b>	<b>Net kWh Credits Carry Forward</b>	<b>Net kWh Converted to Monetary Credit (monthly) Credits Carry Forward</b>

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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**.