

# **New Hampshire Policies Supporting Distributed Generation**

**Distributed Generation Forecast Working Group  
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**Stephen Eckberg  
New Hampshire PUC – Sustainable Energy Division**

# **New Hampshire Programs Promoting Distributed Generation**

- Net metering and Group Net Metering
- Renewable energy certificates (RECs) awarded to qualified renewable resources under NH's RPS - RSA 362-F
- Rebate and Grant Programs supported by NH's Renewable Energy Fund (REF)

# Net Metering

- Net metering statute enacted 1998 (RSA 362-A:9)
- Requires electric utilities to offer net metering to customers who own or operate renewable energy or CHP generating facilities
- 50 MW statewide cap. Each utility cap calculated by multiplying statewide cap by utility's share of "total 2010 annual coincident peak energy demand"
- 4 MW statewide cap for CHP
- 1 MW cap on individual electric generators

# NH Net Metering Results

as of 12/31/13

<b>Electric Utility Service Territory</b>	<b>Number of Installations to date</b>	<b>Total Installed Capacity (MW) (% of Total)</b>	<b>2010 Peak Load (MW)</b>	<b>Allowed Net Metering Capacity (MW) (% of Total)</b>
Liberty Utilities	63	0.231 (2%)	189	4.12 (8.2%)
NH Electric Coop	360	2.026 (20%)	124	3.16 (6.3%)
PSNH	912	6.999 (69%)	1,588	36.55 (73.1%)
Unitil	109	0.897 (9%)	268	6.17 (12.3%)
Total	1,444	10.153 (100%)	2,169	50 (100%)

# Net Metering – Utility Data

- The table in prior slide is based on annual net metering reports prepared by electric utilities for the PUC. Those reports are submitted by April of each year
- Monthly updates are available in EIA Form 826, Schedule 3B. As of October 2014, this data indicated total installed capacity of 12.422 MW
- Electric utilities have additional data on net metered installations beyond that provided to PUC. This includes:

# Net Metering Customer Credit

- For systems  $\leq 100$  kW, customers receive a per kWh bill credit equal to the sum of all kWh charges in the applicable distribution utility tariff. Based on current rates, residential customer credits range from 13 to 16 cents per kWh generated (varies by utility) up to customer's monthly load. If customer account is commercial tariff then credits will be different.
- Generation in excess of monthly load is credited to customer's next bill as kWh credit and carried forward indefinitely. Customer may elect to receive payment (at avoided-cost rate) for any excess generation remaining at the end of an annual period.
- Avoided cost rate is same for each utility and is calculated annually. The current rate is set at 7.968 cents per kWh for solar PV and 7.465 per kWh for all other systems.
- For systems above 100 kW, the per kWh credit is equal to the utility's energy service charge. Current energy service charges vary from 9.5 to 15.5 cents per kWh.
- Customers own the RECs associated with their electricity production. However, RECs associated with excess generation purchased by utility at end of annual period may be claimed by utility.

# Virtual (Group) Net Metering

- In 2013, net metering statute was amended to allow a customer-generator to become a group host for the purpose of lowering the bills of customers without own generation
- “Group” members must be customers of same distribution utility serving the host
- kWh credits generated by host system are shared with group members. Value of credit varies depending on size of host system (i.e., above or below 100 kW)
- Utility sends one monthly check to group host for the value of electricity generated. Host is responsible for distributing funds to group members
- As of 12/15/14 there are 2.235 MW of Approved Group Systems. Some operational & some overlap with prior N.M. data

# Funding for Renewable Energy Rebate and Grant Programs

- Programs are funded by NH's Renewable Energy Fund (REF). ACPs made by competitive electricity suppliers and electric distribution utilities are the sole source of funding for the REF
- Total ACPs fluctuate from year to year, depending on the price and availability of RECs in the regional market
- Over the past six years ending 2013, annual ACP total has varied from \$1.3M to \$19.1M



# Residential Renewable Electric Generation Systems Rebate Program

- Program offers rebates for solar PV, wind and other renewable electric generation systems up to 10kW
- Rebate levels are \$.75 per watt of panel rated power up to \$3,750 per individual system, or 50% of capital cost of individual system, whichever is less
- No MW cap on program. Number of customers receiving rebates limited only by program budgets
- Cost data on systems receiving rebates available

# Commercial & Industrial Incentive Programs

- There are two separate programs. One offers rebates for solar PV generation systems up to and including 100 kW DC. The other provides for competitive grant awards to customers with systems larger than 100 kW
- Rebate levels currently at \$0.80 per watt DC, up to \$50,000 per individual system. Grant program limited by available program funds.
- Rebates and grants available to non-profits, businesses, public entities, and other non-residential entities
- No MW cap on programs

# C&I Rebate/Incentive Program

## Proposed Changes

- Proposal is before the Commission now for approval.
- Create 2 categories
  1.  $X \leq 150$  kW-DC would get \$0.75/W or 25% of total cost
  2.  $150 < X \leq 500$  kW-DC would get \$0.65/W or 25% of total cost

# Renewable Energy Fund

## Rebate Programs Cumulative Results

REF Programs	# of Applications	# of Rebates Awarded	Rebate \$ Disbursed	Rebate \$ Reserved	Average Rebate Award	Aggregate Applicant Investment
Residential PV & Wind	1,497	1,251	\$5,543,061	\$205,665	\$4,431	\$24,014,949
C&I Solar PV and Solar Thermal	277	153	\$2,093,720	\$2,018,713	\$13,684	\$10,400,120

Thank you & Keep your panels clear.

