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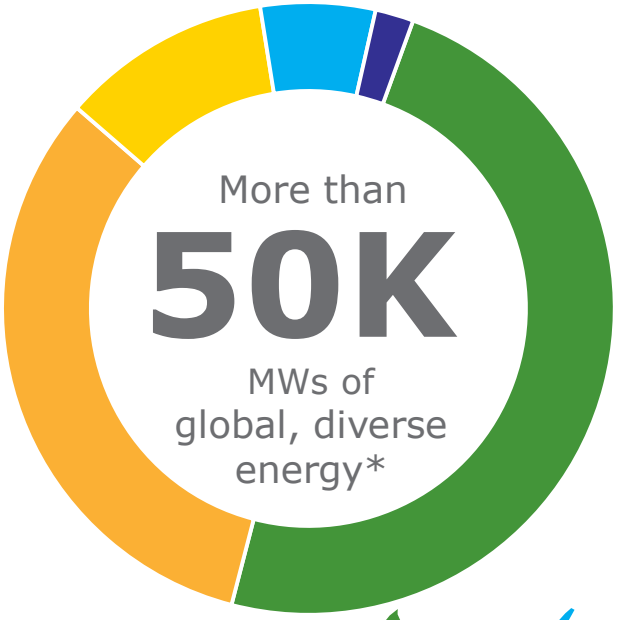
New England's Changing Net Metering Landscape

Consumer Liaison Group

Our strength in numbers



Our generation capacity can support nearly
1/3 of the US population

Nearly **3,000,000**
recurring retail customers

3rd largest renewable generation company in the U.S.

$3 billion+
Invested on environmental improvements

Largest independent power producer in U.S.

Fortune 500
- and –
S&P 500 Index

*NRG and NRG Yield Assets excluding 1,346 MW thermal and 68 MW of Home Solar

Why is this discussion so timely?

- Massachusetts: 188MW of community, municipal/public and C&I projects are on a wait list
- Tens of thousands of customers want to go solar but cannot
- Net metering helps customers understand the value proposition
- Net metering empowers customers to make their own energy choices and do their part to help meet policy goals

How does net metering work?

- Net metering allows customers of certain electric distribution companies to receive credit for excess generation from onsite solar or other qualifying technologies.
- In turn, these credits may offset the value of electricity purchases from the grid.
- Customers are only billed for their "net" energy use over the course of a billing period, typically one month.

Net metering types

- Conventional net metering
- Aggregate net metering
- Virtual/community net metering

Each state has a different approach …

STATE	CAP	LIMITS ON INDIVIDUAL SYSTEMS	NET EXCESS GENERATION
CT	No limit specified	2 MW	Credited to customer's next bill at retail rate; excess reconciled annually at either avoided-cost rate or time-of-use/generation rate (for PV systems)
MA	4 % private, 5% public of utility's historical peak load	10 MW for net metering by a municipality or other governmental entity; 2 MW for all other "Class III" systems; 1 MW for all other "Class II" systems; 60 kW for all other "Class I" systems	Varies by system type and customer class
ME	No limit specified	660 kW for IOU customers; 100 kW for muni and co-op customers (although they may offer up to 660 kW voluntarily)	Credited to customer's next bill at retail rate; granted to utility at end of 12-month billing cycle
NH	50 MW statewide, 2 MW for CHP	1 MW for most renewables, 100 kW for wind, 30 kW for CHP	Credited to customer's next bill at retail rate; carries over indefinitely
RI	3% of peak load (2 MW reserved for systems under 50 kW)	5 MW (systems must be "reasonably designed" to generate only up to 100% of annual electricity consumption)	Credited at avoided cost; rolled over to next bill or purchased by utility
VT	15% of utility's 1996 peak demand or peak demand during most recent calendar year (whichever is greater)	2.2 MW for military systems; 20 kW for micro-CHP; 500 kW for all other systems	Credited to customer's next bill at retail rate; excess credits not used within 12 months of generation granted to utility

Source: Freeing the Grid, 2016

… So state market dynamics differ

State	Solar jobs (2015)	Jobs rank per capita	Homes powered by solar (2015)	Total solar capacity (2014)	Capacity rank vs. national
ME	330	43	3,703	13 MW	34
NH	731	17	3,207	14 MW	34
RI	941	11	3,173	15 MW	32
VT	1367	3	24,402	100 MW	22
CT	1951	18	31,255	192 MW	16
MA	15,095	2	163,846	944 MW	6

Sources: The Solar Foundation, SEIA

Net metering policy context is changing

- Customer demand is high, solar expected to grow
- States are working to meet emissions goals
- Utilities are concerned about impact of greater renewables penetration on the grid and their cost recovery
- Maturity of state markets varies
- The efficiency of rooftop solar technologies and their deployment continues fast improvement
- Industry is focused on reducing “soft costs”
- In some states, solar is a significant source of job growth

New England states are responding

CONNECTICUT
- State changing shared clean energy facility pilot program (6 MW) to ensure utilities can recover costs

MAINE
- Bill proposes to transition retail net metering to a 20-year contract at a set price for net exports measured hourly

MASSACHUSETTS
- National Grid private cap reached 1 year ago, legislative impasse

NEW HAMPSHIRE
- Caps hit, Legislature likely to double cap to 100 MW

RHODE ISLAND
- Governor's budget proposes expanding the scope of net metering to include third-party financed systems

VERMONT
- PSB's draft net metering rule preserves retail net metering but unique approach of combining net metering and incentives make solar economics challenging

Where do we go from here?

- More solar is coming; are utilities focused on updating grid to accommodate DER?
- Consumer's perspective is key; Net metering provides value and simplicity
- Moving beyond caps: A sustainable growth framework for distributed solar
- Comprehensive Value of Solar studies confirm significant benefits from net metering
- Look beyond competing data sets: What are the states' policy objectives? Jobs growth? Empowering consumer energy choice? Emissions reductions?

Thank you

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