

# Net Metering and Solar Development

Vermont Public Power Supply Authority

Melissa Bailey

Legislative and Regulatory Affairs Representative

[mbailey@vppsa.com](mailto:mbailey@vppsa.com)

802-882-8509

# VPPSA Overview

- ▶ Joint Action Agency with 12 Municipal Electric Utility members:
  - ▶ Barton, Enosburg Falls, Hardwick, Hyde Park, Jacksonville, Johnson, Ludlow, Lyndonville, Morrisville, Northfield, Orleans, Swanton
  - ▶ VPPSA was created through Vermont statute to provide economies of scale and shared services to these small utilities.
  - ▶ VPPSA provides power supply, ratemaking, regulatory and financing services.
- ▶ VPPSA serves roughly 32,000 Vermont customers and accounts for approximately 6% of the State's electric load. Peak ~ 80 MW
- ▶ VPPSA and its member utilities operate on a non-profit basis. Electric service is delivered to customers at cost.

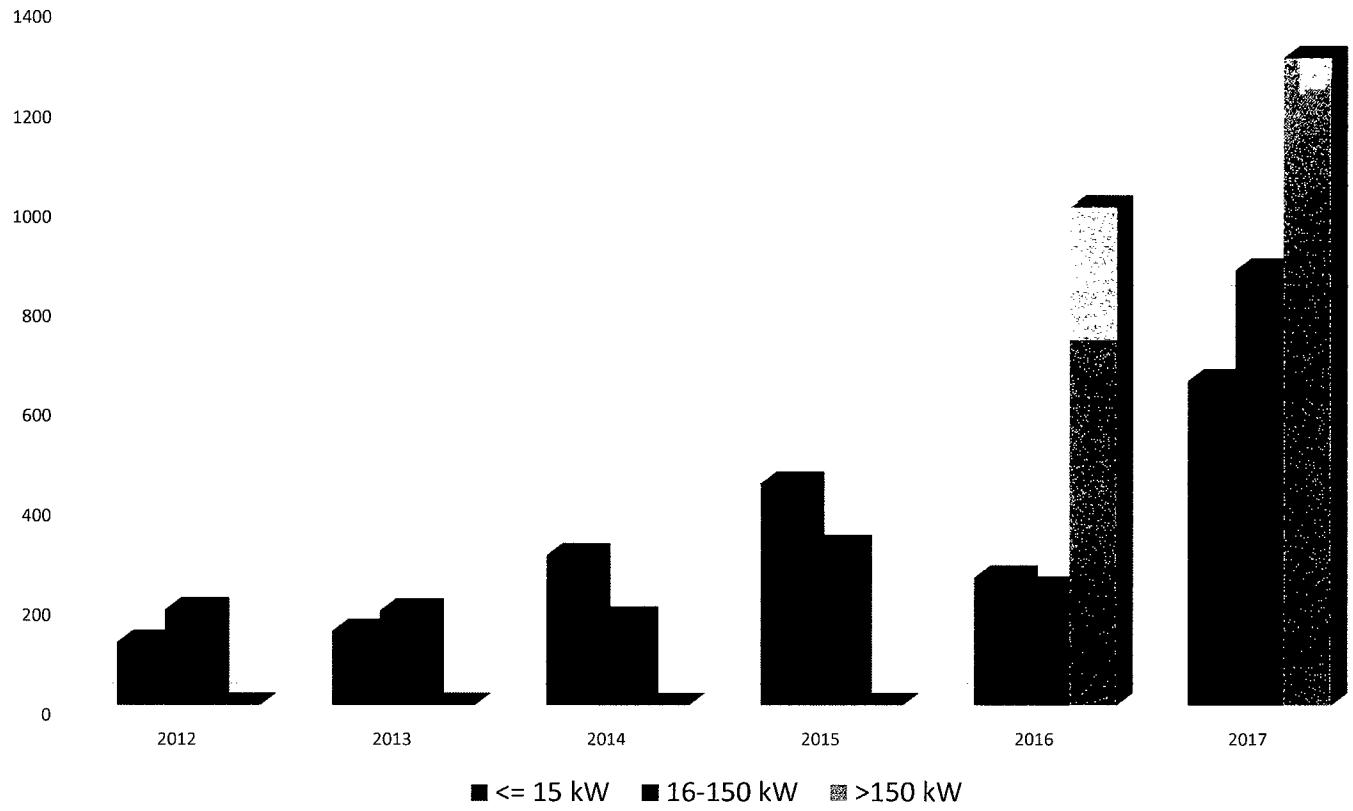


# VPPSA Position on Solar and Net Metering

- ▶ VPPSA is actively developing in-state solar projects.
  - ▶ Location determines value.
- ▶ The cross-subsidy continues to exist under the net metering program.
  - ▶ Some customers are reaping the benefits of net metering while others are paying more than they otherwise would.
- ▶ Benefits of distributed solar could be delivered at lower cost.
  - ▶ Current compensation rates exceed the value delivered utilities.
- ▶ Sustainability is not achieved when utilities pay above retail rates for “excess” generation.
- ▶ Desired “pace” has not been defined; difficult to measure “success.”



# Installed Solar Net Metering in kW/year



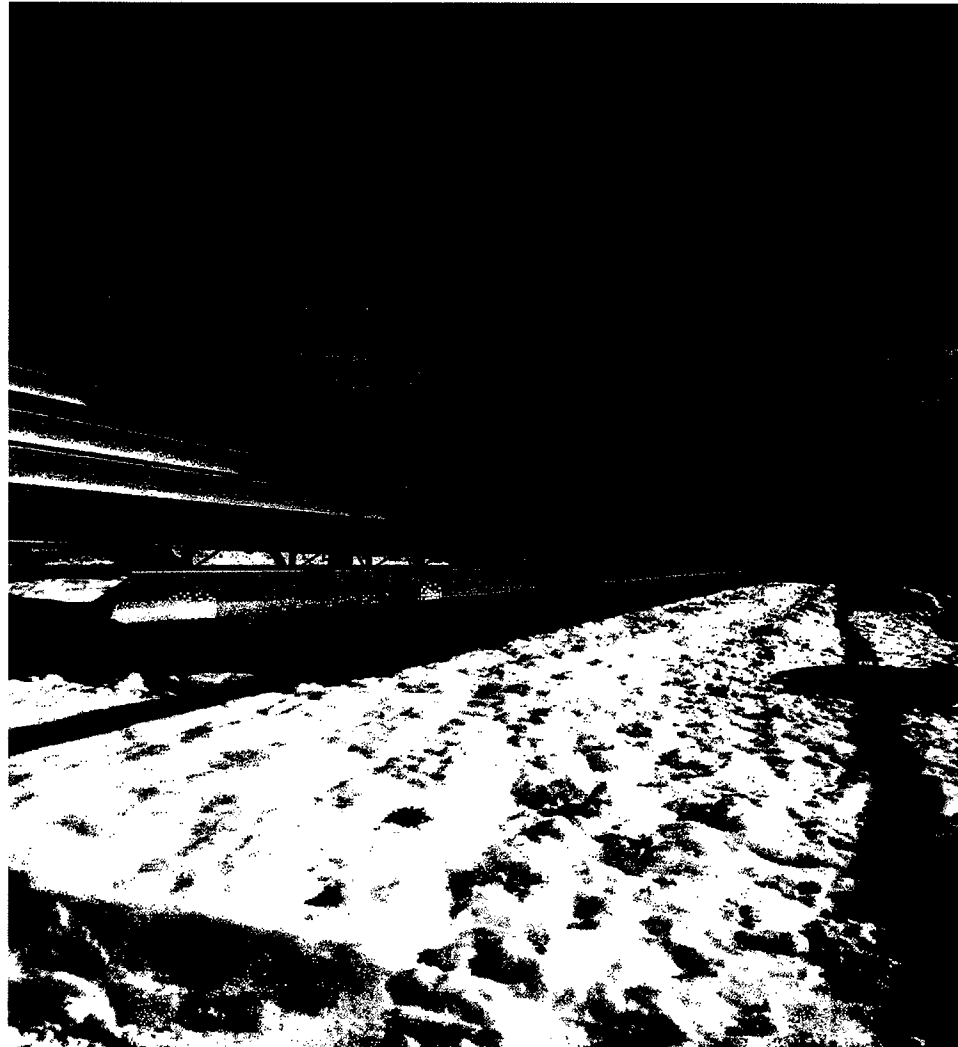
# VPPSA Solar Development

- ▶ VPPSA solicited bids for Solar PV in Member Service territories in 2017.
  - ▶ 12 Sites identified by Members
- ▶ Received Responses from 8 Vendors (mostly in state), 20 sites, offering both ownership and PPA options from 20kW rooftop - 5MW
- ▶ Initial Bids received in the following ranges (no escalation, 25 years):
  - ▶ 700 kW - 1 MW: \$0.095-\$0.147/kWh
  - ▶ 1MW - 2.5MW: \$0.085-\$0.144/kWh
  - ▶ 2.5MW - 5MW: \$0.081 - \$.093/kWh
- ▶ Final Round of solicitation in March - expected CPG applications in 2018.
- ▶ Four Standard Offer Projects awarded contracts in 2015 and 2017.



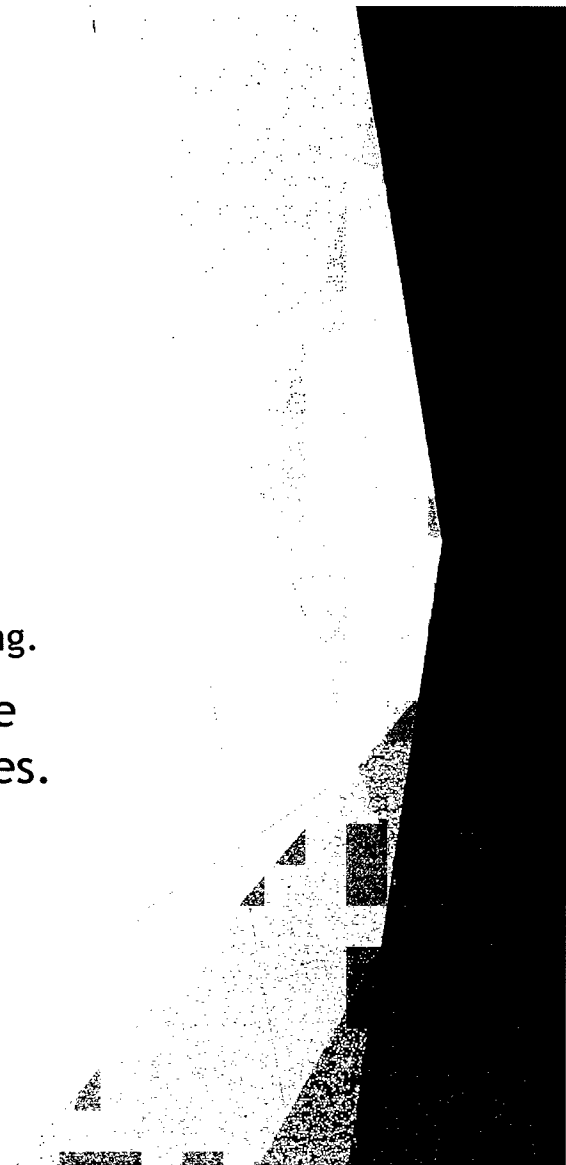
## VPPSA Standard Offer Projects

- Lyndonville Solar 1 500kW  
– May 2018
- Lyndonville Solar 2 493kW  
– May 2018
- Trombley Hill Solar 860 kW  
– Fall 2018
- Blackberry Solar 855 kW  
– Fall 2019



# Grid Considerations

- ▶ Transmission benefits from additional net metering systems have been drastically reduced in recent years.
  - ▶ Additional solar provides little benefit in terms of avoided transmission charges from ISO-NE.
- ▶ Distribution systems must be built to accommodate utilities peak loads.
  - ▶ Most of VPPSA's members (and VT) peak during the winter in the evening.
- ▶ Generators located *close to load* have potential to reduce line losses but generators located far from load may *increase* losses.
- ▶ Certain areas of the grid have become constrained by the amount of generation.
  - ▶ Additional solar located in these areas will displace existing renewable (largely wind) generation that will be required to reduce output.



# Renewable Energy Standard

## VPPSA RES Tier 2 Requirement and Resources

