Energy Siting Initiatives in VT

VT Department of Public Service
Regional Energy Planning Initiative

- Follows recommendations of 2012-13 Energy Generation Siting Policy Commission
- DPS supporting 11 Regional Planning Commissions (RPCs) to undertake comprehensive energy planning (electric, thermal, and transportation sectors)
- Plans will align with VT’s 2016 Comprehensive Energy Plan 90 by 2050 goal
- Staggered contracts; first draft plans coming in now, all will be complete by early 2018.
Bennington Regional Planning: Needs Analysis

Bennington Region
Residential Energy Demand: 2010 - 2050

BCRC Total Residential Energy

BCRC Single-Family Heating Energy
### Bennington Region: Generation Modeling

#### NEW IN-STATE ELECTRICITY GENERATION
2010 – 2050

<table>
<thead>
<tr>
<th>YEAR</th>
<th>ELECTRICITY CONSUMPTION (GWh)</th>
<th>NEW HYDRO (MW)</th>
<th>NEW WIND (MW)</th>
<th>NEW SOLAR (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>5,623</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>2025</td>
<td>6,991</td>
<td>25</td>
<td>200</td>
<td>445</td>
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<td>2035</td>
<td>8,073</td>
<td>50</td>
<td>400</td>
<td>926</td>
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<tr>
<td>2050</td>
<td>10,044</td>
<td>93</td>
<td>400</td>
<td>1,647</td>
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**VERMONT**

<table>
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<tr>
<th>YEAR</th>
<th>ELECTRICITY CONSUMPTION (GWh)</th>
<th>NEW HYDRO (MW)</th>
<th>NEW WIND (MW)</th>
<th>NEW SOLAR (MW)</th>
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<tr>
<td>2010</td>
<td>318</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>2025</td>
<td>381</td>
<td>1</td>
<td>16</td>
<td>24</td>
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<td>2035</td>
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<td>2050</td>
<td>473</td>
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**BCRC REGION**
Bennington Region: Solar Potential Mapping

**SOLAR MAP**

- Prime Solar = Yellow
- Includes Level 2 Constraints

- Substations
- 3 Phase Power Lines
- Transmission Lines
- Major Roads
- Secondary Roads
- Rivers/Streams
- Lakes/Ponds
- 2,500 Ft Elevation
- Prime Solar Potential - No Level 1 or Level 2 Constraints

**Level 2 Constraints**

- Class 3 Wetlands
- Deer Wintering Areas
- Special Flood Hazard Areas
- Conserved Lands
- Hydric Soils
- Habitat Blocks *
- Agricultural Soils **

PROJECT 1
PROJECT 2
PROJECT 3
PROJECT 4
PROJECT 5
PROJECT X
Bennington Region: Solar Need Vs. Resource

This is the amount of land area which is considered “prime solar.”

(about 14,000 acres)

And this is about the amount of area that would be needed to reach our 2050 goal of 85 MW additional in-region capacity.

(about 800 acres)
Other Siting Initiatives

• S.230 – Passed by Legislature in May
  • Builds on Regional Energy Planning Initiative
  • Regions/Towns with approved plans get substantial deference in proceedings

• Net Metering Overhaul
  • Draft Rule – PSB working on final.
  • Draft contains siting adjustors
  • Siting adjustors range from +1 to -3 cents/kWh.
  • Streamlined permitting process for projects on preferred locations.
Transmission Projects for Reliability

• Projects cannot be approved by the Public Service Board if demand for service cannot be met more cost effectively through energy efficiency, demand response, distributed generation

• Vermont System Planning Committee
  • Created in 2007
  • Consists of Transmission Owner, all Distribution Utilities, environmental and business interests

• Creates a public, transparent process for forecasting reliability needs and potential non-transmission alternatives
Merchant Transmission Projects

• New England Clean Power Link – TDI
  • 1,000 MW DC line, approved in January 2016
  • Consists of 100 miles under Lake Champlain, 60 miles buried along road or RR rights of way, and a converter station
  • Extensive meetings with towns before filing resulted in MOUs with all parties to the case
  • Technical hearing lasted 45 minutes (less than most small solar cases)

• Vermont Green Line – Anbaric/National Grid
  • 400 MW DC line, expected to be filed with Vermont PSB in near future
  • 60 miles, underground in Vermont and New York, with converter stations at each end
Takeaways from Transmission Siting in VT

• Talk with the affected communities early and often
• Expect to pay more upfront in mitigation costs instead of later in litigation costs and project delays
• Clearly explain the rationale for the project, including alternatives considered
• Provide tangible benefits to impacted communities, particularly when the impact is disproportionate to the benefit
Questions?

Christopher Recchia, Commissioner
VT Public Service Department
Chris.recchia@Vermont.gov
(802) 828-4071