

Efficiency's Role in VELCO's Transmission Planning and Regional Advocacy Work

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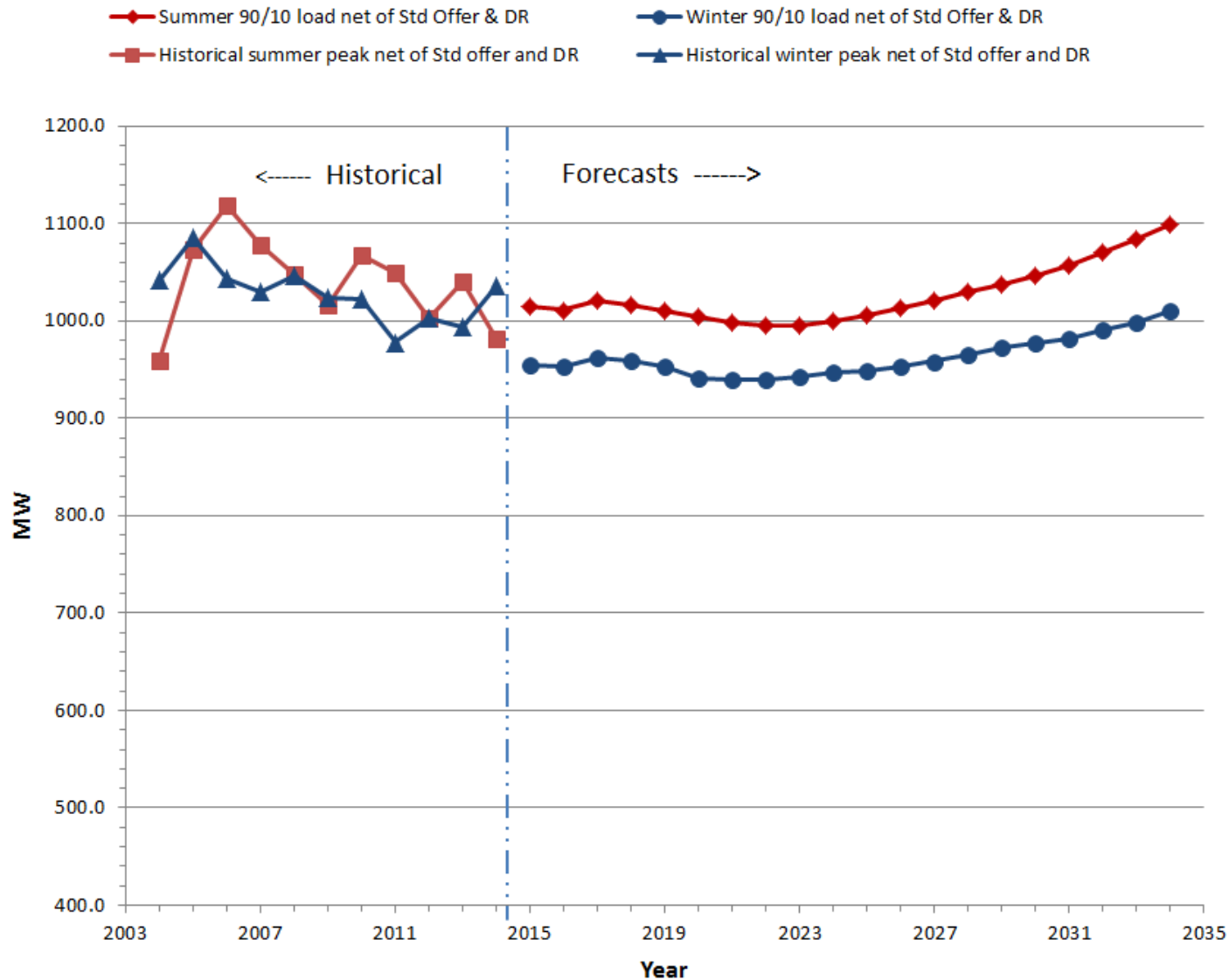
vermont electric power company



The short story

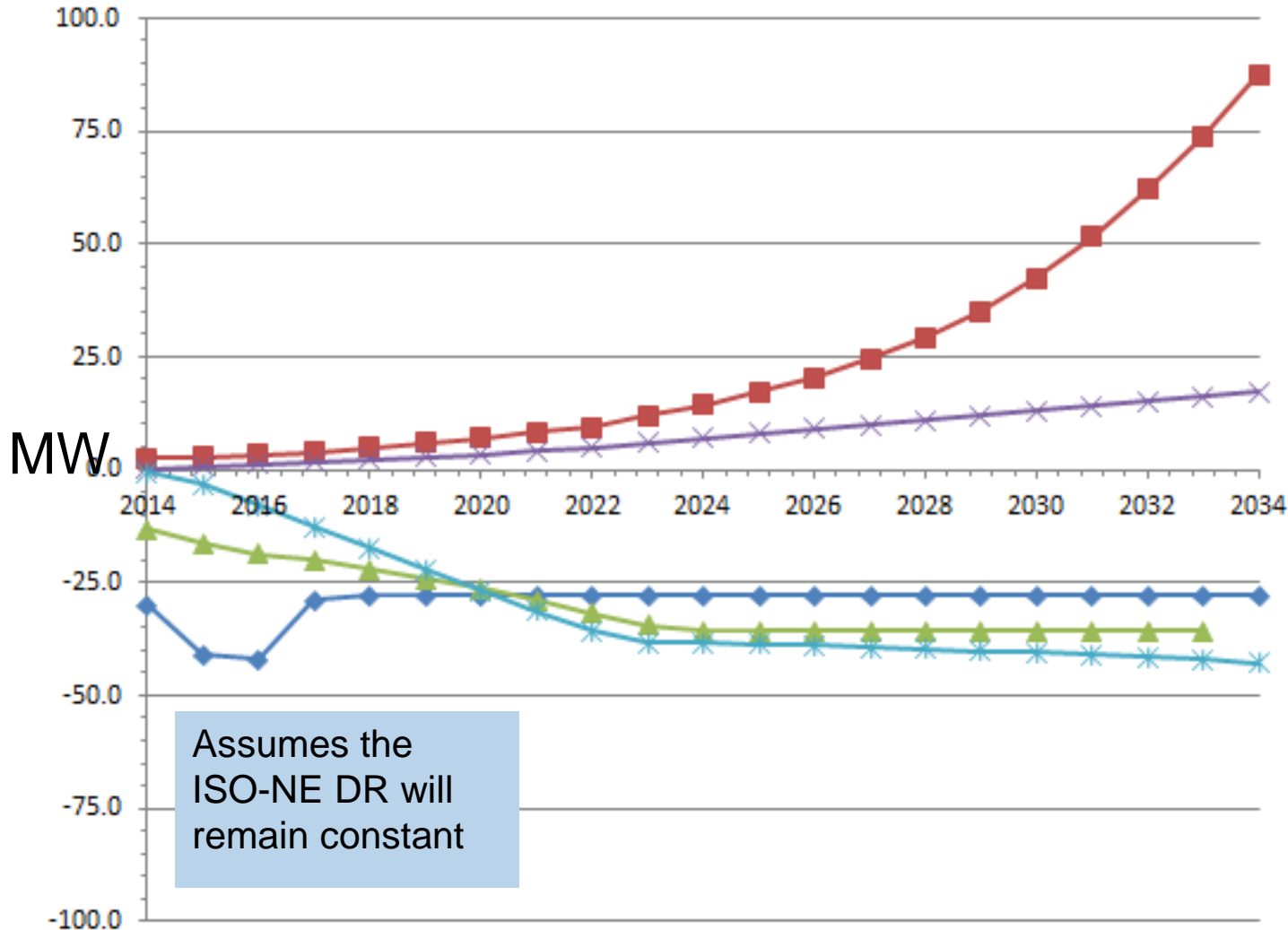
- Energy efficiency represented about 70 percent of the incremental resources that deferred nearly \$400M of upgrades.
- ISO-NE includes future energy efficiency gains based on states' long-range policy.
- ISO-NE's and VELCO's current forecasts reveal flat peak load growth and thus require few transmission upgrades—but are dependent in part on continued efficiency investment
- Forecasting is in flux but mandatory reliability standards may drive more proposed upgrades
- Regional transmission costs will continue to rise – \$6.5 billion since 2002; approximately \$4.5 billion planned
- Vermont benefits from long-term energy efficiency policy stability

The load forecast



Separate forecast generated for these items

- Heat Pump (HP) Cooling Load forecast
- ◆ ISO-NE Demand Response (DR) forecast
- ✱ Net metering forecast (28%)
- ✱ Electric Vehicle (EV) forecast
- ▲ Standard Offer (SO) expected output (28%)



Assumes the ISO-NE DR will remain constant

New Item: uses the GMP high HP forecast

New Item: uses VEIC, Navigant and other data for EV

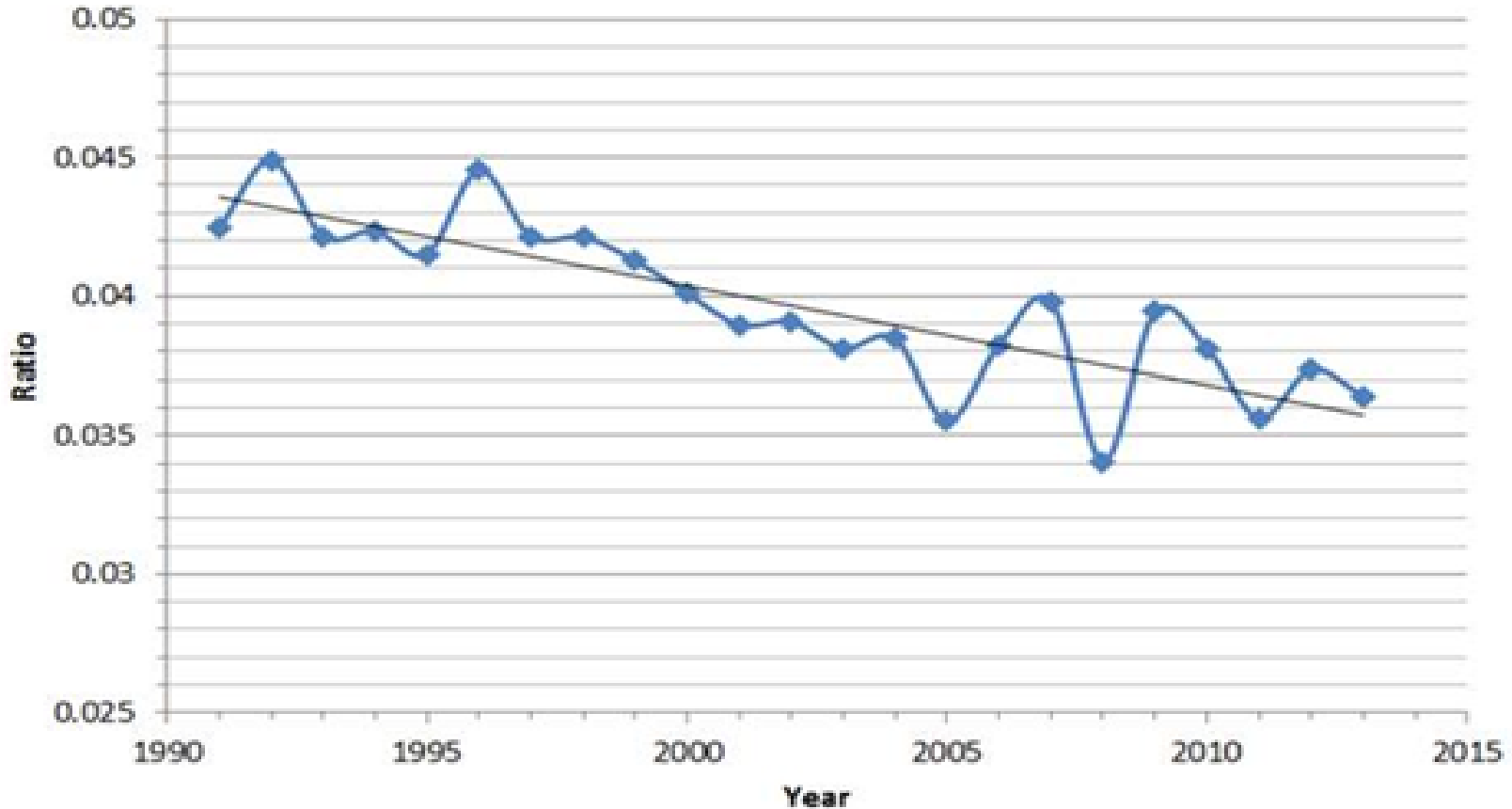
New Item: captures recently instituted 15% net metering cap

Assumes Standard Offer program will end

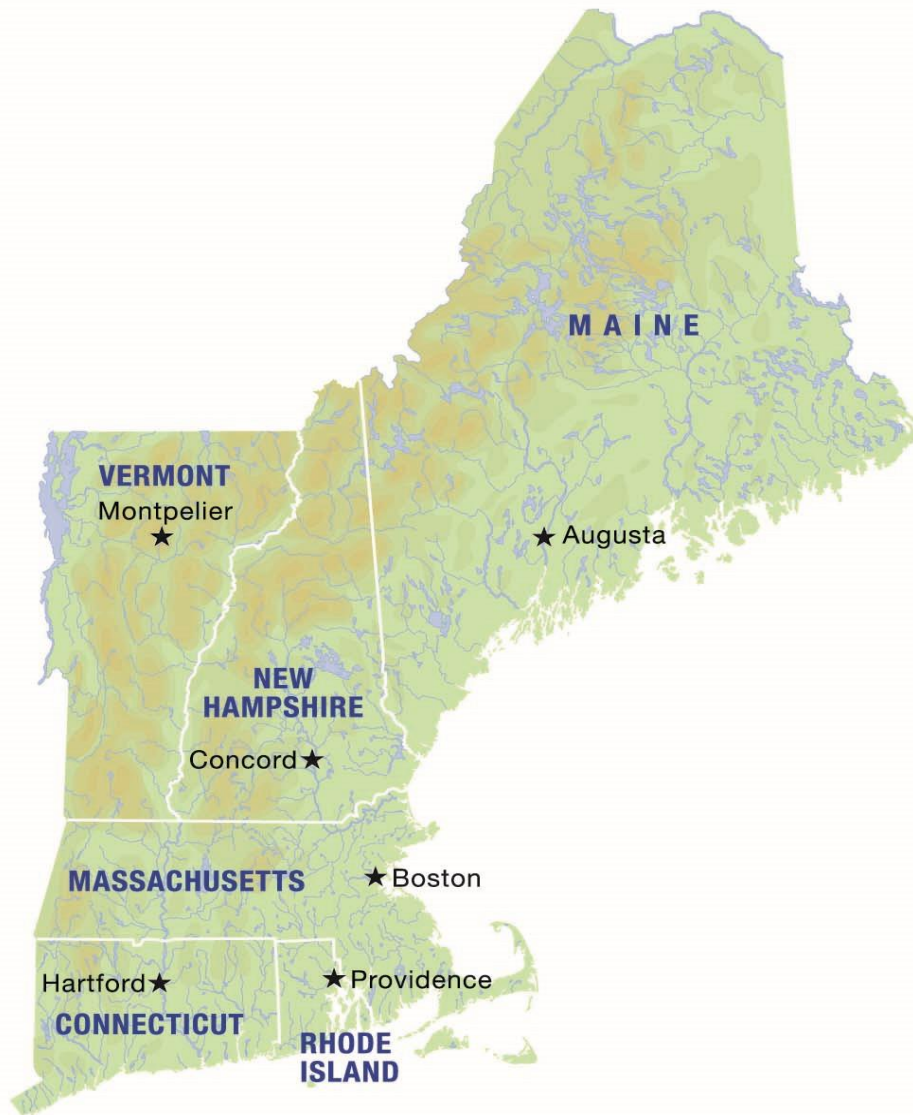


Vermont's coincident peak dropping

Ratio VT/ISO coincident Summer Peak

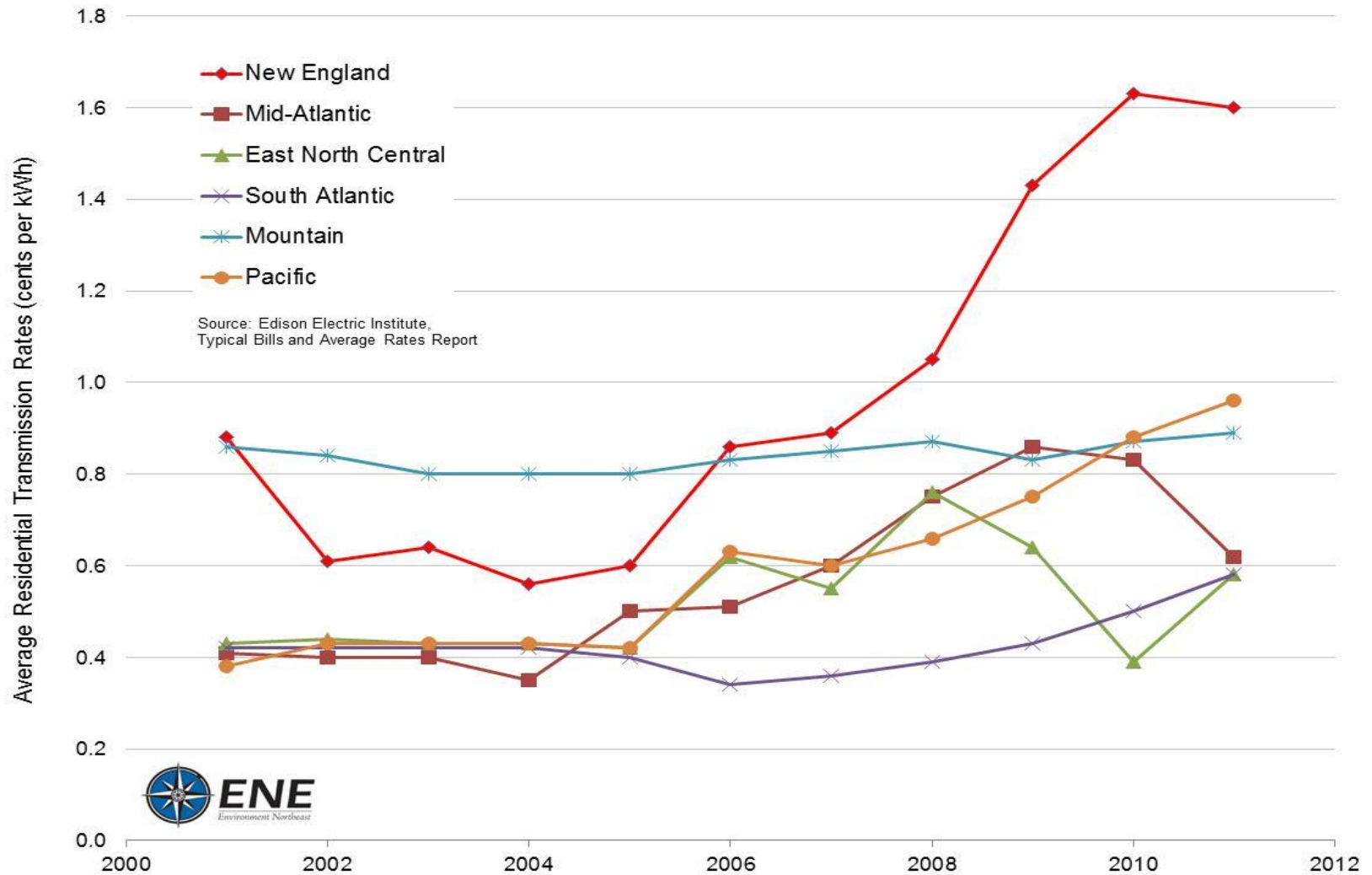


Regional Grid Operator: ISO-New England



- Approximately \$6.5 billion in transmission investment since 2002; approximately \$4.5 billion planned
- Population 14 million
- Approximately 350 generators
- Approximately 31,000 MW of total generation for 2014
- Over 8,500 miles of transmission lines
- Total Market value in 2013: \$8.82 billion

Costs: New England vs. Rest of U.S.





2015 strategic plan

Champion initiative update

Champion an energy future aligned with Vermont interests – <i>Team Vermont</i>	Actions that advance the initiative
<ol style="list-style-type: none">1. Champion an energy future aligned with Vermont values2. Infuse critical decisions with Vermont values and interests3. Define success in local and regional terms4. Recognize the essential importance of stakeholders' understanding and reflect their input as far as possible at all stages5. Drive solutions that move the region forward in policy and practice	<p><u>NE Governors' Infrastructure Initiative advocacy</u></p> <ul style="list-style-type: none">• Significant impact on regional discussion, including incorporation of NTA and cost control dimensions• Ultimate demise of proposal <p><u>Increased cost control measures in regionally funded projects</u></p> <ul style="list-style-type: none">• Delivered VT message on NTAs and transmission cost estimation• Advocating new PP4 language for greater cost adherence• Expanded stakeholder coalition including: VEIC, HQ, DPS (and CLG), and Synapse• Advocated 30/70 region-state cost allocation for Order 1000 public policy projects <p><u>Greater consideration for distributed renewables in planning</u></p> <ul style="list-style-type: none">• DG Forecast Working Group progress• ISO-NE movement toward incorporation in FCM 10• Vermont Weather Analytics Center Project