

## ***Discussion Questions:***

### **Meeting #2: The Electric Grid and Utility Issues**

Analysis conducted for the Total Energy Study, among others, indicates that Vermont is likely to increasingly use electricity for building heat and for transportation, displacing some of our direct use of other fuels, as the state moves toward meeting its energy goals. This could result in a significant net increase in the amount of electric energy consumed in Vermont, which could place new stresses on our electric grid. At the same time, new distributed energy resources (DERs, including demand-side, storage, and generation resources) have the potential to provide new services to the grid.

#### **Questions for Afternoon Meeting Small Groups**

- 1) What are the biggest challenges facing Vermont electric ratepayers and utilities in the next 5-10 years? 20-35 years?

##### Customer perspective:

- 2) How can electric rate designs for consumers of all classes best advance state energy and economic goals?
- 3) How important are power quality and other power characteristics, balanced against cost?
- 4) How important is customer ownership and direct participation in the electric system (e.g. via behind-the-meter resources used for the grid)?
- 5) How much should the electric plan rely on consumers embracing utility load control or appliances/vehicles/machinery that respond to dynamic prices?

##### Regulatory perspective:

- 6) What is the right role for franchised electric utilities in advancing a transformed energy system?
- 7) Does Vermont's current utility regulatory structure support or inhibit utilities from pursuing the societally least-cost energy system?
- 8) How should Vermont's electric plan reflect the different ownership structures of VT utilities (IOU, muni, coop) and their different sizes?
- 9) What regulatory or policy tools do regulators and other policy-makers need to drive the right set of actions?

##### Infrastructure perspective:

- 10) Are there "no regrets" or "few regrets" grid upgrades or other changes Vermont utilities should consider making soon to enable future grid transition, which would also provide some kinds of value today?
- 11) Should Vermont strengthen or expand its electrical connections to neighboring states/provinces? Why or why not?
- 12) What will limit the integration of distributed energy resources into Vermont's grid?
- 13) What role should electric energy storage play on the grid? Who should deploy it, and how should they be compensated? What difference should there be between stand-alone storage and EV batteries?

#### **Questions for Large Group**

- What most surprised you from the conversation in your small group?
- How should Vermont approach the challenge of seeking the least-cost overall electric system in both the near term (next 10 years) and over the longer term (e.g. to 2050)? How should we identify the least-cost set of resources or upgrades to deploy, and when they should best be deployed?
- What analytical tools do regulators and other policy-makers need to identify and understand electric sector choices as Vermont transitions to clean energy?
- How should utilities integrate planning for their poles, wires, and substations with planning for power supply and minimizing/controlling energy demand?
- The PSD would like to have a stronger prioritization in the 2015 CEP than in the 2011 version. What should be the highest-priority strategies or recommendations you heard today?
- What's one thing you would want the PSD to take away from today?
- What did you think was missing from today's discussions?