



Vermont's Smart Grid Efforts

Efforts to date

Act 92 of 2007 Legislature required the Public Service Board (PSB) to investigate the use of smart meters and time-of-day rates and report to law makers in December, 2008.

PSB 7307, Investigation into Vermont Electric Utilities' Use of Smart Metering and Time-Based Rates, opened in 2007.

- Phase I: 2007. Resulted in a consultant report about the cost-effectiveness and benefits for Vermont utilities to implement Smart Metering.
- Phase II: Nov, 2008, utilities filed a Memorandum of Understanding with the PSB establishing a framework for the regulatory treatment of smart metering, facilitating utilities to move forward individually with smart metering.

Status of smart grid and smart metering implementation by VT Utilities (Source: Docket 7307 MOU, pending at PSB)

- Vermont Electric Cooperative is in the process of implementing advanced metering throughout its system.
- Central Vermont Public Service is planning for system-wide implementation of advanced metering.
- Burlington Electric Department has engaged a third-party vendor that uses AMI capability to implement demand response.
- Green Mountain Power has conducted a 300-customer smart meter pilot project in the City of Winooski
- VELCO is implementing a statewide radio project that will greatly upgrade capability for wireless communication across the elements of the electric system.

Statewide smart grid vision through application for Federal economic stimulus funds

A collaborative, involving Vermont electric utilities, including VELCO, the VT Telecommunications Authority, and state agencies, is preparing an application for Federal economic stimulus funding to accelerate Smart Grid implementation.

Goals

- A smart electric grid that gives consumers and businesses greater control over their electric bills.
- Access to renewable and off-peak power to lower costs and reduce carbon footprint.
- Secure access to high-speed broadband for all Vermonters.
- Use Vermont as a public-private laboratory where a shared backbone communication network removes innovation barriers for industry, utilities, regulators, customers and researchers to pursue technologies and prove real-world benefits to share across the country.

Potential Proposal Components

- Fiber optic communications to every transmission and distribution substation prioritized.
- 200 mobile tower antennae locations for a statewide, wireless communication network.
- Distribution automation and voltage control at 250 sites.
- Utility Scale Wind Generator Storage system.
- Staged smart meter installation for all Vermont electric customers.
- Purchase, retrofit and ground test electric plug-in hybrid vehicles.
- Microgrid construction using renewable and/or low emission distributed generation.
- Advanced controls and monitoring of transmission grid to increase efficiency and reliability (synchrophasor demonstration project).
- Residential home demonstration.