

Vermont SMARTgrid Benefits: INFORMATION AND CHOICES

What is “smart grid”?

“Smart grid” is an upgraded electric system that uses fiber optic cable and digital technology to relay information back and forth between customer meters and the utility, and between the utility and various components of the electric grid. When fully operational, smart grid will provide a more reliable electric system, with the ability to more easily incorporate renewable energy sources and to offer customers innovative rate options and other tools to better manage their electric use.

Why do we need a smart grid?

The electric power grid has been a primary driver of the economy for more than a century. It contributes incalculably to the comfort, security and safety of everyday life. However, the demands of the digital age, the cost of energy, population growth, and concerns about the environment, reliability and security are increasing requirements from the electric system. By updating this critical infrastructure, and offering new rate choices for customers, the smart grid will provide new tools to improve reliability, increase security and balance the increasing demands of the electricity system.

What information and choices will a smarter grid bring to Vermont consumers?

A smarter grid will allow Vermont consumers to actively participate and make more informed decisions about their energy use.

Information:

- Consumers will have access to information about how much energy they use, and when they use it, to better manage their energy use.
- This information can come through a variety of ways, such as their electric utility’s website (see example to the right) or through an in-home energy use display.

Choices:

- New rate and technology choices will be available to help consumers save money by reducing electricity consumption or shifting their usage to times when rates are lower.
- With more electricity use information, consumers will be able to choose rate offerings that work best for them. New rate offerings will include incentives to take advantage of electricity price changes throughout the day. Some Vermont utilities currently offer “time of use” rates in addition to their flat rate offerings, but the future will bring many more options.
- Consumers will also have new technology choices available to them, including in-home energy management tools and appliances with sensors — “smart appliances” — to help them take advantage of lower rates during certain times of the day.
- Some consumers may choose to have the utility control a portion of their usage (e.g., water heating) in exchange for financial incentives and convenience. Options like this are available today and a smarter grid will allow utilities to use these controls more precisely, when they are most needed.
- A smarter grid will also enhance Vermont consumers’ ability to generate renewable electricity and offset their own usage (e.g., net metering).



Illustrative example of web-presentation screen