

"Efforts to reduce greenhouse gas emissions will dovetail into higher use of a smart grid. A smart grid can directly help achieve the goals of climate change legislation."

Tom Standish,
Group President & COO
CenterPoint Energy
Regulated Operations



CenterPoint Energy's smart grid will be a green grid

Smart meter deployment and smart grid infrastructure will help reduce greenhouse gas emissions.

CenterPoint Energy's smart grid will significantly benefit the environment by reducing emissions of greenhouse gases (GHG) and other air pollutants and by reducing consumption of fossil fuel resources. These environmental benefits will be achieved in three ways:

Increasing transmission and distribution efficiency and reducing electricity consumption

The energy efficiency and conservation capabilities of a smart grid will significantly benefit the environment by reducing the fossil fuel consumption associated with electricity generation and by reducing the need for new fossil fuel generation plants in the future. Because customers in the company's service area consume about 15 percent of the electricity used in Texas, these savings will be significant. The regional, national, and global environments will benefit from these reductions in fossil-fuel generated electricity.

Reducing CenterPoint Energy's vehicular needs

CenterPoint Energy's smart grid will also reduce the consumption of resources associated with performing basic utility services such as connections, disconnections, and meter readings. The installation of smart meters and related communications equipment will allow for the electronic delivery of data and the remote completion of procedural operations. This will significantly decrease CenterPoint Energy's transportation fuel consumption and associated emissions of greenhouse gases and other pollutants, as the company will not be required to "roll a truck" for all basic services.

Promoting the development and use of distributed and renewable energy production and enabling widespread use of plug-in hybrid electric vehicles (PHEVs)

Finally, the company's smart grid will create a platform that will allow for the deployment and development of technologies for increasing distributed generation (DG) and energy storage capacity, such as wind and solar generation, and PHEVs. All smart meters deployed by CenterPoint Energy measure electricity delivered and generated, eliminating the need for installation of expensive specialized DG metering. Just like energy efficiency measures, DG can help reduce the need for new fossil-fuel generated capacity, now and in the future, and will therefore benefit the environment. Additionally, the smart grid will include technologies that facilitate the use of PHEVs, thereby reducing the consumer's reliance on gasoline and diesel-fueled vehicles.

Research Studies

1. DOE – A 5% more efficient grid would reduce power generation equal to fuel and GHG emissions of 53 million cars.
2. EPRI – Full deployment of a smart grid could reduce GHG emissions by 13-25%, equal to taking 1-2 million cars off the road each year.
3. EPRI – The smart grid could reduce CO2 emissions by 60-211 million metric tons in 2030.
4. Climate Group – a smart grid could prevent 4% of global emissions in 2020.
5. McKinsey – studies suggest smart grid is more cost effective to reduce GHG than bio-fuels, biomass, or carbon capture.

1. "The Smart Grid: an Introduction," U.S. Dept. of Energy.
2. "Electricity Sector Framework for the Future," Electric Power Research Institute. Achieving a 21st Century Transformation, Aug. 2003.
3. "A Smart Grid is a green grid, says EPRI report," SmartGridNews.com, Jan. 9, 2009.
4. "Smart 2020: Enabling the low carbon economy in the information age." The Climate Group on behalf of the Global eSustainability Initiative (GeSI), 2008.
5. "Reducing U.S. Greenhouse Gas Emissions: How Much at What Cost?" McKinsey and Company. U.S. Greenhouse Gas Abatement Mapping Initiative. Dec. 2007.

For More Information

Visit CenterPointEnergy.com/EnergyInSight for the latest information on smart meters, including deployment maps for 2009 – 2012.

