Business Plus
Spotlight
Boulder County Business, Magnified.

Leading the Way in Reducing Emissions

Milestone in measurement validates Xcel Energy's ongoing commitment

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Leading the Way in Reducing Emissions

Milestone in measurement validates Xcel Energy's ongoing commitment

In a changing utilities marketplace, Xcel Energy continues to lead the way among U.S. utilities in reducing carbon dioxide and other greenhouse gas emissions.

Xcel Energy has achieved a significant milestone as the first U.S. utility to verify and register all of its greenhouse gas emissions data for seven consecutive years with The Climate Registry (TCR), a nonprofit organization that designs and operates voluntary and compliance-related greenhouse gas reporting programs throughout the world.

"Xcel Energy has tangibly demonstrated its leadership and accountability over the years through its rigorous and high-quality greenhouse gas reporting," said David Rosenheim, executive director of TCR. "As countries from around the world gear up for the next U.N. climate conference in November, and the U.S. embarks on measures such as the Clean Power Plan, Xcel Energy should be commended for its vision and foresight in addressing climate and energy issues."

Xcel Energy set a new clean energy record Oct. 2 when wind energy supplied 54.3 percent of the power delivered to Colorado customers. This was the first time the company served more than 50 percent of customer daily load with wind for an entire day.

Measuring carbon dioxide is complicated. Emissions can be measured at the power plant stack with monitoring equipment, but there are also emissions associated with other operations.

"Xcel Energy pledged to begin reducing emissions in 2005, well before many other utilities in the country. Setting a standard to accurately measure these emissions was the first step in fulfilling our commitment," said Frank Prager, vice president, policy and federal affairs for Xcel Energy.

Xcel Energy became a member of TCR in 2007 and worked collaboratively to establish consistent, transparent standards for calculating, verifying and publicly reporting all greenhouse gas emissions.

"As a founding member of The Climate Registry, we contributed significant expertise and helped develop the protocol for counting emissions in the electric power sector, which ultimately helped us verify that we are meeting our goals," Prager said.

Xcel Energy uses TCR's protocol to annually report all of its greenhouse gas emissions, of which carbon dioxide makes up over 99 percent. The company has Climate Registered™ status for successfully measuring and reporting emissions from 2005 to 2011. It continues to work with TCR to verify and register emissions for 2012 to 2014.

The emissions that Xcel Energy reports are comprehensive, including direct emissions from power plants, indirect emissions from the electricity purchased, and emissions from other parts of operations that are considered optional for reporting. All operations are covered, from supply chain to customers. Data is verified by third parties and reported on TCR's website.

Reporting under TCR began as a voluntary effort. Xcel Energy now reports greenhouse gas emissions under the U.S. Environmental Protection Agency's mandatory reporting rule, as well as to local and state entities.

It also publishes emissions in its annual carbon dioxide worksheet and corporate responsibility report and through CDP, formerly Carbon Disclosure Project. All reporting is based on data reported to TCR.

Carbon-free energy

With measurement comes management. Implementing a clean energy strategy, Xcel Energy is providing more carbon-free energy by modernizing power plants and energy delivery systems to reduce emissions including carbon dioxide.

The company is midway through executing a major project for Colorado's Clean Air-Clean Jobs Act, passed in 2010. When complete, more than half of the company's coal-fueled generation in Colorado will be retired, replaced or retrofitted. This includes seven coal units since 2010, and in 2017, a fourth coal unit at Cherokee Plant in Adams County and the coal unit at Valmont Plant in Boulder County.

As of 2014, Xcel Energy's carbon dioxide emissions in Colorado are down 26 percent from 2005 levels and expected to fall to 35 percent by 2020. Companywide, Xcel Energy is ahead of what the EPA wants to achieve under the Clean Power Plan. Its early actions will help Colorado meet the Clean Power Plan requirements.

"Reflecting on our clean energy efforts over the last decade, I am particularly proud of our ability to make this kind of progress and change, while keeping our prices competitive," said David Eves, president of Public Service Company of Colorado, an Xcel Energy company.

Under the approved 2015-2017 electric rate plan, which includes recovery of nearly $1 billion of investments in the Clean Air-Clean Jobs project alone, overall rates are increasing about 1 percent each year on average.

Renewable options

Through its clean energy strategy, Xcel Energy is also providing a portfolio of clean energy options that customers want and value.

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Xcel Energy is set next year to more than triple its large solar capacity. This includes an agreement to purchase all the energy from the Comanche solar project in Pueblo, Colorado, which broke ground in August. It is the largest solar power plant east of the Rocky Mountains.

As the largest utility wind energy provider in the nation, Xcel Energy has added vast amounts of wind energy and kept prices affordable and competitive. The company set a new clean energy record Oct. 2 when wind energy supplied 54.3 percent of the power delivered to Colorado customers. This was the first time the company served more than 50 percent of customer daily load with wind for an entire day.

In addition to the wind power in the energy supply, the company offers customers the option to choose more wind energy for their homes or businesses through its Windsource program. About 41,000 residences and businesses participate statewide. Boulder accounts for around 14 percent of Colorado participation.

Solar energy is growing in prominence as a renewable source. Xcel Energy continues to be a top utility for solar power capacity and this year is among the top 10 U.S. utilities in this category (Solar Electric Power Association). The company is adding economical, large solar projects to its energy mix, often referred to as utility-scale solar, while offering other solar solutions as well.

Photos courtesy of Xcel Energy.

"We are committed to solar energy and support a range of choices to meet different customer needs and interests," Eves said.

Xcel Energy is set next year to more than triple its large solar capacity. This includes an agreement to purchase all the energy from the Comanche solar project in Pueblo, Colorado, which broke ground in August. It is the largest solar power plant east of the Rocky Mountains. It will produce more than 300 gigawatt-hours of energy a year – enough to supply the energy needs of about 30,000 Colorado homes and avoid the emission of more than 478 million pounds of carbon dioxide.

The company's Solar*Rewards program continues to see strong participation. There are around 25,000 rooftop and business-sited systems statewide. Boulder accounts for about 13 percent of Colorado participation.

And Xcel Energy's Solar*Rewards Community program, or solar gardens, which began here in Colorado, is growing. Solar gardens offer an alternative to rooftop solar panels, allowing neighbors, nonprofits and businesses to share access to a centrally-located community solar installation.

Last month, Xcel Energy announced the winning bids for nearly 30 megawatts of solar projects – including a new 500-kilowatt project in Boulder County by garden developer Clean Energy Collective and a partnership with the city of Boulder, Boulder County and Boulder affordable housing providers. This is in addition to two, 500-kW Boulder County community solar gardens currently installed.

"We know customers have many expectations today, not only of cost and reliability, but also of having more options, more control, more convenience and more opportunities to communicate with their energy provider," Eves said. "The utility industry is changing, and adapting to those changes is a key area of focus for Xcel Energy."