



## 2010 our clean energy future | Texas and New Mexico

At Xcel Energy, we remain committed to our environmental leadership strategy. We aggressively pursue innovative clean energy technologies, including emissions reductions, renewable resources, energy efficiency programs and new technologies.

### EMISSIONS

The installation of low nitrogen-oxide burners at our Harrington Generation Station coal plant resulted in a 50 percent reduction of NO<sub>x</sub> emissions from two units with the new burner technology. Burner tune-ups at our Tolk coal plant reduced NO<sub>x</sub> emissions 35 percent each in two units. Together, the upgrades result in 1,000 tons less NO<sub>x</sub> a month.

Burning low-sulfur coal from Wyoming, ongoing modifications and newly installed neural-networked “learning” software have combined to improve combustion efficiency and reduce emissions at our coal plants.

EMISSION-CONTROL AND EFFICIENCY PROJECTS	
HARRINGTON UNIT 1	Optimization and burner tuning, reduce NO <sub>x</sub> 950 tons per year
	Expansion joint replacement on preheaters in 2010, saving 40,250 tons CO <sub>2</sub> over life of project
	In late 2010, unit 1 boiler modification will result in significant NO <sub>x</sub> reduction
TOLK UNIT 1	Pre-heater basket replacement, reduce CO <sub>2</sub> 30,000 tons over life of project
	Neural-network installation, reduce NO <sub>x</sub> 161 tons a year
TOLK UNITS 1 AND 2	Hydrogen generator installation, reduce CO <sub>2</sub> 141,579 tons over life of project



**ENERGY EFFICIENCY**

**BUSINESS INNOVATION**

**ADVANCED TECHNOLOGIES**

**CLEAN ENERGY FUTURE**

“For Xcel Energy, environmental leadership is more than just a promise. We have the results to prove our commitment – and every effort moves us closer to a clean energy future.”

– Dick Kelly,  
Xcel Energy Chairman and CEO

## TECHNOLOGY

Energy from renewable sources is a growing part of our energy mix because it provides clean, cost-effective energy to our customers, and it supports our emissions-reduction goals.

Texas and New Mexico had about 846 megawatts of wind connected to its system at the end of 2009, with 443 megawatts under long-term contract. Our pursuit of long-term agreements with renewable energy providers – wind, biomass, solar and others – and our investment in transmission, distribution and generation efficiency projects – compliments our vision for addressing potentially rising fuel costs and emissions expenses.

### New Mexico community solar projects

**New Mexico utility-scale solar:** SunEdison ground mounted photovoltaic with first units online in 2011 (five 10-megawatt sites located in Lea and Eddy counties).

Electric customers of Xcel Energy in New Mexico can apply for Solar\*Rewards' incentives on small and medium solar photovoltaic (PV) generating systems installed on their homes and businesses.

Xcel Energy and Eastern New Mexico University-Roswell broke ground on a 35-kilowatt solar installation at the campus on the Roswell International Air Center.

The project is part of Xcel Energy's New Mexico Community Solar program, which is placing solar installations in four eastern and southeastern New Mexico communities to educate students and customers about the benefits of solar power.

## ENERGY EFFICIENCY AND LOAD MANAGEMENT

TEXAS	
SPENDING	\$4,094,760
SAVINGS	
GENERATOR KW	9,220
GENERATOR MWH	10,275
NEW MEXICO	
SPENDING	\$3,025,182
SAVINGS	
GENERATOR KW	2,640
GENERATOR MWH	11,156

## INNOVATION

Xcel Energy pioneered the use of baghouses, which trap the ash from using coal, at our Tolk and Harrington coal plants. While some dispose of coal ash in landfills, we recycle 100 percent of it. In 2009, we recaptured and recycled 363,001 tons of fly ash.

The 600-megawatt Hobbs Generating Station in New Mexico, with which we have a long-term purchase agreement, uses a cooling system that consumes 90 percent less water than gas-fired power plants of the same size; uses combined-cycle technology, burning natural gas about 40 percent more efficiently and emitting 800,000 tons less of carbon dioxide a year than an older plant, effectively reducing carbon emissions in our service territory by 3.5 percent.

Xcel Energy is seeking approval to add a new, highly efficient 168-megawatt natural gas-fired combustion turbine at its Jones Generating Station near Lubbock.

## RESOURCE PLANNING

- Add 50 MW of solar in New Mexico by 2012
- Increase wind portfolio by up to 300 MW, for a long-term purchase agreement total of approximately 750 by 2015
- Add 168-MW efficient combustion turbine unit at Jones Generating Station just east of Lubbock
- Research biomass opportunities

In many states, such as Texas, Xcel Energy has more renewable energy on its system than is needed for compliance for renewable energy standards. Renewable energy credits (RECs) are debundled from renewable energy and sold in the market. In 2009, Xcel Energy sold more than 1.1 million RECs from wind energy generated in Texas, New Mexico and Colorado. The RECS were generated from wind produced in 2006 through 2009.

SPS saved 157 billion gallons of fresh water by cooling with recycled municipal treated effluent at Harrington and Nichols generation stations northwest of Amarillo and Jones Generation Station near Lubbock, since 1980.