

House Bill 07-1037: A Success Story for Homes and Businesses in Colorado Serviced by Xcel Energy and Black Hills Energy June 1, 2011

- House Bill 07-1037, passed by the legislature in 2007, directed the Public Utilities Commission (PUC) to establish energy savings goals for investor-owned electric and gas utilities. The bill also directed the PUC to provide utilities with the opportunity to earn a profit from implementing cost-effective energy efficiency programs for their customers.
- The Colorado PUC established energy savings goals and a performance-based incentive mechanism for Xcel Energy in 2008 and for Black Hills Energy in 2009. The PUC also established rules guiding energy efficiency programs by investor-owned gas utilities. These actions led to greatly expanded utility energy efficiency programs in Colorado. The programs help households and businesses save energy and money through education about energy savings opportunities, rebates on energy-efficient products and equipment, technical assistance, and free installation of efficiency measures in some cases.
- The table below shows the amount of energy savings, peak demand reduction and net economic benefits as a result of electric efficiency programs implemented by Xcel Energy and Black Hills Energy during 2009-2011. In total, the two utilities spent \$166 million on energy efficiency and load management programs for their customers during this period, far more than was spent the previous three years. Xcel now spends about 3% of its revenues on energy efficiency programs for its customers.*
- As a result of the utilities' efforts, households and businesses reduced their electricity use in 2011 by over 800 million kWh per year, equivalent to the electricity use of 100,000 typical households. Xcel Energy exceeded the energy savings goals set by the PUC while under spending its energy efficiency budget every year since the new era of efficiency programs began in 2009.
- The electric efficiency programs of Xcel Energy and Black Hills have been very cost effective with an overall benefit-cost ratio of more than three-to-one. Households and businesses in the state are expected to save about \$640 million net as result of Xcel's and Black Hill's electric efficiency programs in 2009-2011. Programs implemented in 2012 are expected to result in an additional \$215 million in net economic benefits.
- In addition to recovering program costs, Xcel Energy was awarded \$45 million in incentives based on the level of energy savings achieved and the cost effectiveness of its energy efficiency programs in 2009-2011. This meant that about 93% of the net benefits of the programs will be retained by customers with about 7% awarded to the utility.
- In 2011, the PUC raised the energy savings goals it had previously set for Xcel Energy during 2012-2020 by 30%. As a result, Xcel is continuing to expand its energy efficiency programs. If Xcel achieves the goals set through 2020, electricity use as of 2020 will be reduced by about 4 billion kWh per year—equivalent to 14% of the total electricity consumption by Xcel's customers today.

- Gas utilities in the state also scaled up their energy efficiency programs as a result of HB 1037. Households and businesses cut their natural gas use by about 1.4 billion cubic feet in 2011, equivalent to the natural gas use of 25,000 typical households, as a result of gas utility efficiency programs implemented during 2009-2011. These programs are expected to save consumers about \$39 million net.
- Jobs are created through the production, sales and installation of energy-efficient products as well as through households and businesses spending utility bill savings on other labor-intensive goods and services. The companies that are members of the Energy Efficiency Business Coalition of Colorado employ over 1,000 workers in the state.
- HB 1037 is yielding environmental benefits in addition to economic benefits. Xcel Energy and Black Hills avoided over one million tons of carbon dioxide emissions during 2009-2011 as a result of their energy efficiency programs, assuming that half of the energy savings reduces operation of coal-fired power plants and half reduces operation of gas-fired power plants. This is equivalent to taking 110,000 cars off the road.
- Among their energy efficiency programs, Xcel Energy and other utilities provide incentives for energy and water-saving devices such as low-flow showerheads and resource-efficient clothes washers. Water savings also occur when utilities reduce electricity generation and operation of power plant cooling systems as a result of energy efficiency improvements. In total, the energy efficiency programs enabled by HB 1037 reduced water consumption by around 1.5 billion gallons in 2011, equivalent to the water use of 11,500 typical households in the metro Denver area.
- Xcel Energy and Black Hills Energy provide electricity to about 1.45 million consumers in Colorado. These homes and businesses are benefiting from House Bill 1037. Municipal utilities and rural electric co-ops provide electricity to the remaining one million consumers in Colorado. Unfortunately, these homes and businesses have not benefited because House Bill 1037 only applies to investor-owned utilities and most municipal utilities and rural co-ops implement very limited energy efficiency programs.

Results of House Bill 1037, 2009-2011

Utility	DSM Spending (M \$)	Electricity Savings (million kWh/yr)	Peak Reduction (MW)	Benefit-Cost Ratio	Net Economic Benefits (M \$)
Xcel - 2009	43.9	220	59.8	4.07	214
Xcel - 2010	54.6	252	67.4	3.33	227
Xcel - 2011	63.8	312	75.6	2.85	197
BHE – 09/10	1.4	5	1.2	2.3	2
BHE – 10/11	2.5	17	3.9	1.6	4
Total	166.2	806	207.9	> 3	644

*Utility data is from annual Demand Side Management reports that were submitted by utilities to the Colorado Public Utilities Commission.