



DEMAND SIDE MANAGEMENT

WHAT IS “DEMAND SIDE MANAGEMENT?”

- As customers use more electricity, utilities must acquire additional resources to meet that growth, both in energy used (MWh) and total demand (MW). Utilities meet growth needs with new generation (*e.g.*, gas plants or wind farms) or investment in helping customers reduce energy use and demand on the system (*e.g.*, more efficient lighting).
- Demand Side Management (DSM) is an investment to reduce both future energy use and demand, both MWh and MW. Because Colorado statute requires DSM resources to be cost-effective, these resources are a lower cost way for utilities to meet their resource needs.

WHAT DO STATE STATUTES REQUIRE CONCERNING DSM? (§40-3.2-104, C.R.S.)

Statutory requirements pertain to investor-owned utilities, Public Service Co. of Colorado (dba Xcel) and Black Hills. These include:

- Establishing minimum DSM savings goals of a 5% reduction in energy sales (MWh) and a 5% reduction in peak demand (MW), based on 2006 levels, to be achieved by 2018.
- Offering programs to all classes of customers: residential, commercial, and industrial.
- Clarifying that setting goals and overseeing programs is the purview of the PUC.
- Requiring the Commission to submit an annual report on DSM by April 1 of each year.

WHAT HAS BEEN THE RESULT OF DSM TO DATE?

- In 2008, the Commission established initial electric energy savings goals for Public Service that exceeded the statutory minimums. The goals aimed to reduce sales 1.15% per year on average. Black Hills Electric has comparable goals. (Docket No. 07A-420E)
- In 2011, the Commission increased the savings goals for PSCo based on the record in a proceeding. The goal in 2013 is a 1.21% reduction in sales. The goal grows yearly to a 1.68% reduction in sales in 2020. Goals for Black Hills were not changed. (Docket No. 10A-554EG)
- Combined PSCo and Black Hills have completed three years of DSM programs, reporting:
 - 812,000 MWh of energy savings and demand savings of 213 MW¹
 - \$729 million in combined net economic benefits (savings to customers after accounting for the cost of the DSM programs)
- DSM programs are directed to residential, low-income residential and non-residential (business) customers, toward the objective of providing a reasonable opportunity for all customers to participate.
- For the 2011/12 reporting period, Black Hills estimates that it achieved annualized energy savings of 18,561 MWh, or 1% of annual sales and 4.7 MW of demand savings.

¹ Combined, PSCo and Black Hills in 2011 sold 30,593,000 MWh of energy and had peak demand of 6,996 MW January 2013



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ARE CUSTOMERS SAVINGS MONEY AND AT WHAT COST?

- Public Service expects \$348.2 million in systems benefits from the 2011 DSM investments, over the life of the investments. This savings results from \$63.8 million of spending on efficiency measures by the company combined with participant spending of \$58.4 million.
- Public Service spent roughly \$107 million or 4% of its retail electric sales of approximately \$2.7 billion, on DSM related programs in 2011.
- Black Hills expects \$11 million in systems benefits from the 2011 DSM investments, over the life of the investments. This savings results from \$6 million of spending on efficiency measures by the company combined with participant spending of \$2.8 million.
- Black Hills spent \$3.2 million on its electric DSM programs for the July 1, 2011 through June 30, 2012 program year, or roughly 1.6% of its 2011 retail electric sales of approximately \$194.5 million.