



RESPONSIBLE BY NATURE™

Xcel Energy's Energy Efficiency Programs

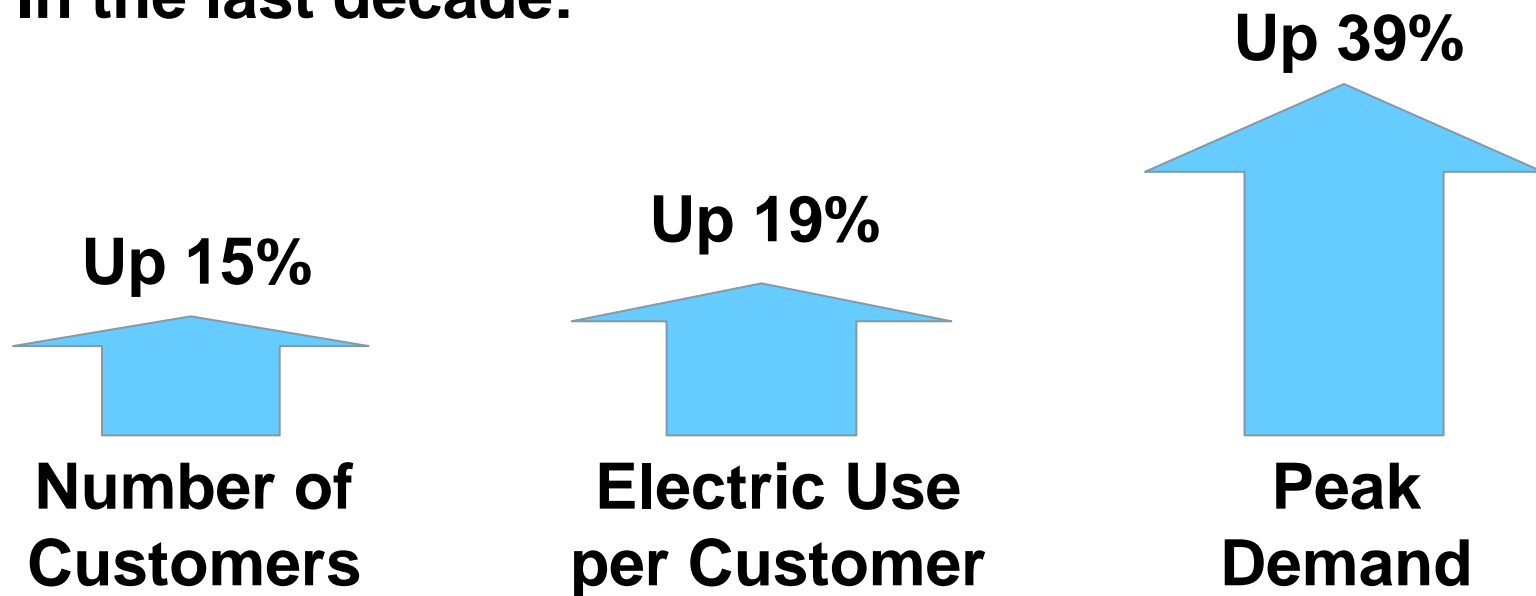
Derek Shockley

Trade Relations Manager

Commercial and Industrial

Driver: Colorado's Energy Needs

In the last decade:



Xcel Energy must meet customers' needs

- ▣ Manage supply by obtaining more power
- ▣ Manage demand by reducing customers' usage

Xcel Energy's Environmental Leadership

- ▶ **No. 1 wind power provider**
- ▶ **Windsorce®**
 - Largest green-pricing program in USA
- ▶ **Industry-leading energy efficiency programs**
- ▶ **One of largest photovoltaic systems 8.2 megawatts**
- ▶ **Solar*Rewards - 2,100 customers, 12 megawatts**
- ▶ **Voluntary emissions reductions**

Reduce Demand

Efficiency programs

- ▶ Estimated Capacity to 886-994 MW
- ▶ Annual energy use reductions to 3,699 GWh (2009-2020)

Past legislation (2006-2013)

- ▶ 320MW demand reduction
- ▶ 800GWh use reduction



530 MW is approximately the size of Xcel Energy's largest coal-fired power plant in Colorado

How Xcel Energy Helps

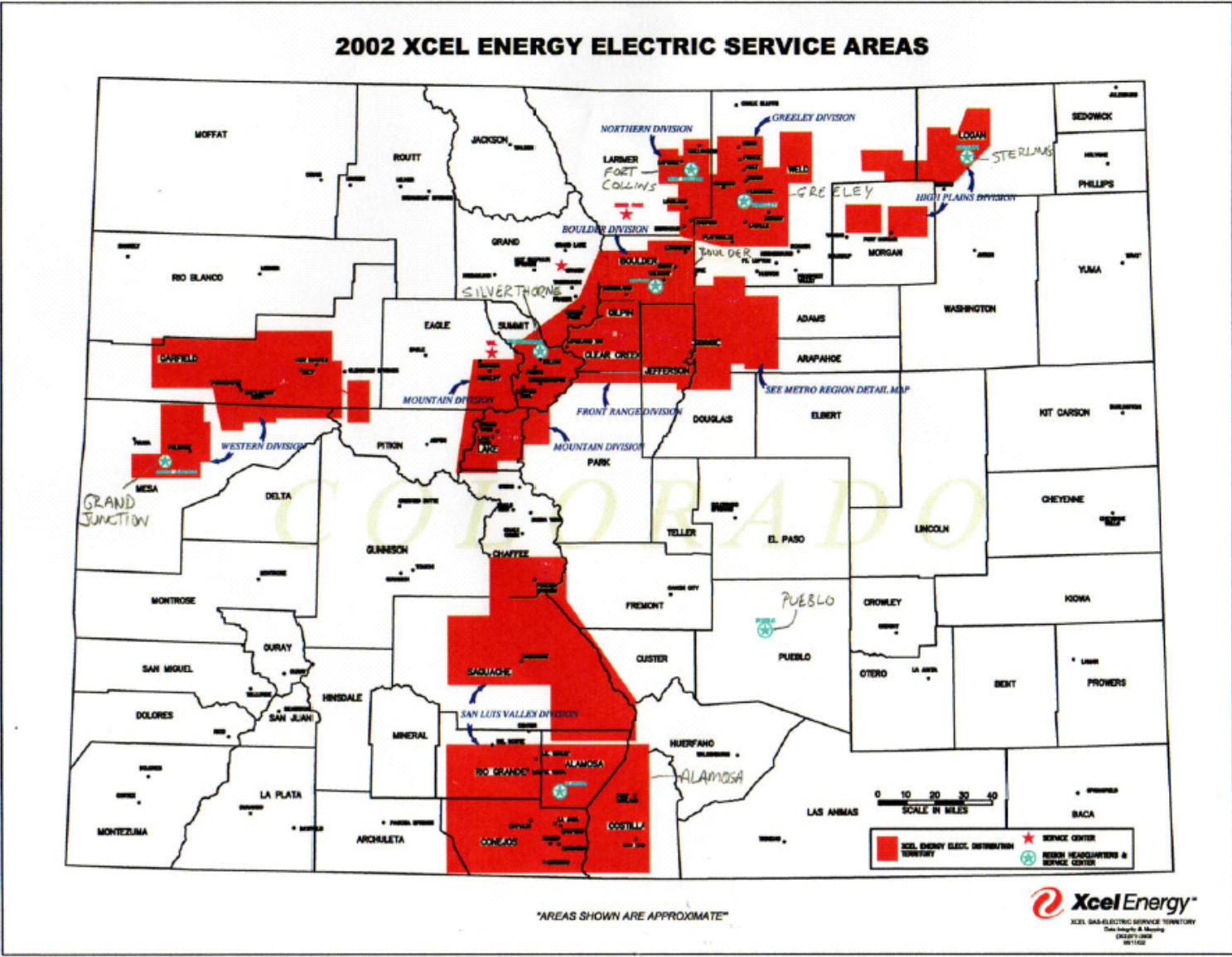
- ▶ Provides incentives to adopt energy-efficient technologies
- ▶ Rebates provide trade partners a tool to influence a customer's purchase decision
- ▶ Xcel Energy brand name and neutral 3rd party endorsement

**Results: energy savings and quicker paybacks
for customers**

Xcel Energy's Efficiency Programs

- ▶ Cash rebates, as opposed to bill credits
- ▶ Existing facilities or new construction
- ▶ For Xcel Energy electricity business customers in Colorado
 - Added natural gas programs in 2009 (for customers who buy their natural gas directly from us)

2002 XCEL ENERGY ELECTRIC SERVICE AREAS





Xcel Energy Efficiency 2008 Program Descriptions





Xcel Energy Offers Three Types of Programs

- ▶ **Prescriptive programs**
- ▶ **Non-prescriptive programs**
- ▶ **Studies/Audits**

Xcel Energy Prescriptive Programs

Prescriptive programs

Predetermined rebate amounts and related savings for various energy-saving technologies

- ▶ **No preapproval required**
- ▶ Qualifying technologies are listed on the rebate applications

Included programs:

- ▶ Lighting
- ▶ Cooling
- ▶ Motors and variable frequency drives

Xcel Energy Non-prescriptive Programs

Non-prescriptive rebates

For equipment and conservation efforts not covered with the prescriptive programs

- ▶ **Preapproval required**
- ▶ Rebate amounts and energy savings may vary greatly by project

Included programs:

- ▶ Custom Efficiency
- ▶ Energy Management Systems
- ▶ Energy Design Assistance

Xcel Energy Studies/Audits


Studies/Audits

Xcel Energy funds a portion of a study, which may lead to identifying energy-saving opportunities


- ▶ **Preapproval required**
- ▶ Additional rebate opportunities can be realized by submitting a prescriptive or custom rebate application

Included programs:

- ▶ Compressed Air
- ▶ Recommissioning
- ▶ Refrigeration
Recommissioning
- ▶ Energy Analysis
- ▶ Lighting Redesign



Xcel Energy
2008
Program Results



Xcel Energy Program Results in Colorado

Small Business, Commercial and Industrial

► 2007 (Year-End)

- 32.9 MW demand reduction
- 94.9 GWh annual energy use reduction

► 2008 (Year-End)

- 35 MW demand reduction
- 118 GWh annual energy use reduction



Xcel Energy Biennial Filing

Submitted August, 2008

Approved December, 2008



Proposed & Approved Programs

- ▶ **35 enhanced or new electric and natural gas efficiency and conservation programs**
 - Businesses – new rebates, enhanced program customization and natural gas equipment rebates
 - Residential – incentives for saving natural gas and electricity
 - Low-income customers – special programs to provide rebates and help with in-home weatherization

Proposed & Approved Business Programs

▶ New programs

- Boilers
- Behavioral change
- Data centers
- Furnaces
- New construction
- Process efficiency
- Small business lighting
- Self-directed
- Segment-based
- Standard Offer

▶ Enhanced existing programs

- Compressed air
- Cooling
- Custom
- Energy Analysis
- Energy management systems
- Lighting
- Motors and drives
- Recommissioning



Enhancements to Existing Programs



Compressed Air

OLD 50-99 hp: 100% study funding, up to \$2,500
99+ hp: 75% study funding, up to \$15,000

NEW Prescriptive rebate of \$4,000 - \$4,500 on compressor systems under 50 hp and \$200/airless drain.
Study rebates remain the same.

Cooling

OLD \$10-\$50/ton, plus \$4/ton above standard
\$200/box VAV

NEW Rebate levels designed to average 33% of incremental cost
Detailed rebate matrix is being developed

Custom Efficiency

OLD \$200/kW standard (\$400/kW temporary promotion)

NEW \$400/kW and/or \$7/Dth (MCF)

Energy Management Systems

OLD On-peak up to \$400/kW (summer months 8 a.m. – 6 p.m.)
Off-peak up to \$0.0525/kWh

NEW On-peak up to \$400/kW (summer months 8 a.m. – 6 p.m.)
Off-peak up to \$0.08/kWh (6 p.m. – 8 a.m.)
\$7/Dth (MCF)

Lighting

OLD \$1.75 - \$125/fixture

Energy efficient lighting including T8, T5, highbays, photocells, sensors and LED exit signs

NEW \$1.50 - \$210/fixture

T8 rebates (retrofit only) require high efficiency ballast with low ballast factor: \$13 - \$22 (higher rebates, slightly different than original filing)

Ceramic metal halide rebates – new construction and retrofit: \$12 - \$75

Motors and Drives

OLD \$10-\$600/motor on NEMA Premium® Efficiency motors 1-200 hp
VFD motors \$30/hp 1-200 hp

NEW Most substantial change, rebates now available for retrofitting existing (in-service) motors, and the rebates are significant
Drive rebates have increased (VFD, ASD)
Rebate applications available online

Recommissioning

- OLD** Up to 50% of study cost, max \$15,000
Up to \$200/kW or \$0.0525/kWh for implementation
- NEW** Up to 75% of study cost, max \$25,000
Up to \$400/kW summer peak, or \$0.08/kWh and \$7/Dth

Energy Analysis

- OLD** Online study is free; on-site study \$200-\$300
Engineering assistance study up to 50%, max \$15,000
Implementation rebates via applicable program
- NEW** Engineering assistance study up to 75%, max \$25,000



New Programs Summary



New Programs Summary

Program	Rebates	Comments
Boilers	<ul style="list-style-type: none">▶ \$600/MMBTUH for 85%Non-Condensing Boilers▶ \$2500/MMBTUH for 92% Condensing Boilers	<ul style="list-style-type: none">▶ Prescriptive rebates for boiler tune ups and controls▶ Effective Jan. 21, 2009▶ Applications available on line
Furnaces	<ul style="list-style-type: none">▶ \$80 for 92% AFUE▶ \$120 for 94% AFUE	<ul style="list-style-type: none">▶ A prescriptive rebate program▶ Installed equipment must match GAMA specification▶ Applications available on-line

New Programs Summary

Program	Rebates	Comments
Data Centers	<ul style="list-style-type: none"> ▶ Studies up to 75%, max. \$25,000 ▶ New data centers go through an EDA type New Construction program ▶ All implementation rebates at \$400/kW 	<ul style="list-style-type: none"> ▶ RFI process underway to select qualified contractors for studies ▶ Two separate paths: one for existing data centers and one for new construction ▶ Preapproval required
New Construction	<ul style="list-style-type: none"> ▶ Program covers cost of energy modeling: \$8,000-\$12,000 to owner's design team ▶ All implementation rebates at \$300/kW and \$7/Dth 	<ul style="list-style-type: none"> ▶ Over 50,000 sq.ft. EDA <ul style="list-style-type: none"> • Basic energy savings • Enhanced, seeking LEED ▶ Under 50,000 sq.ft. <ul style="list-style-type: none"> • List of energy-efficient measures to incorporate

New Programs Summary

Program	Rebates	Comments
Process Efficiency	<ul style="list-style-type: none"> ▶ Study funding with customer contribution capped at 25% or \$7,500 ▶ Rebates per applicable program 	<ul style="list-style-type: none"> ▶ Qualifier: must have saving potential of 2 GWhs or 8,000 Dth ▶ Designed for multi-phase, multi-year plan ▶ Bonus incentives may be given for milestones
Self-Directed Custom Efficiency	<ul style="list-style-type: none"> ▶ \$525/kW saved, or \$0.10/kWh vs. smaller rebates in most other programs ▶ Customer required to do M&V 	<ul style="list-style-type: none"> ▶ Qualifier: must have over 2 MW and 10 GWhs combined energy use ▶ Larger rebates, customer is doing most of the “work” ▶ Rebates can cover up to 75% of incremental cost vs. 50%

New Programs Summary

Program	Rebates	Comments
Small Business Lighting	<ul style="list-style-type: none"> ▶ Same as new lighting prescriptive rebates (implementation phase) 	<ul style="list-style-type: none"> ▶ Third-party contractor will administer the program ▶ RFP is currently underway ▶ Turnkey process for small businesses under 400kW ▶ No cost for audit and support ▶ Launch: 1st quarter 2009
Standard Offer	<ul style="list-style-type: none"> ▶ Study rebates at 50% up to \$0.10 per sq. ft. ▶ \$250/KW saved ▶ \$0.05 per kWh saved ▶ \$7/Dth saved 	<ul style="list-style-type: none"> ▶ Designed for bundled projects ▶ Contains a technical audit phase and an implementation phase ▶ ESCO participation, GEO involvement

New Programs Summary

Program	Rebates	Comments
Commercial Real Estate	<ul style="list-style-type: none"> ▶ Preliminary report cost is \$8,000; with a 50% rebate ▶ Investigative studies reimbursed at 75%, up to \$25,000 	<ul style="list-style-type: none"> ▶ Marketing program targeted at owner-occupied and leased buildings of at least 50,000 sq.ft. ▶ Implementation rebates per applicable program plus a 30% bonus
Behavioral Change	<ul style="list-style-type: none"> ▶ Indirect marketing program targeted at small and medium-sized businesses 	<ul style="list-style-type: none"> ▶ Energy Efficiency Workshops <ul style="list-style-type: none"> • Free of charge • Conducted by energy consultant ▶ Employee Education Campaign <ul style="list-style-type: none"> • On-site education, posters, collateral

Biennial Goals

- ▶ **Designed to save more than 425 million kWh of electricity and 721,000 dekatherms of natural gas in 2009 and 2010**
- ▶ **2009/2010 biennium total of \$137 million proposed for overall portfolio of programs**

Contact Information

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Xcel Energy Account Managers

