

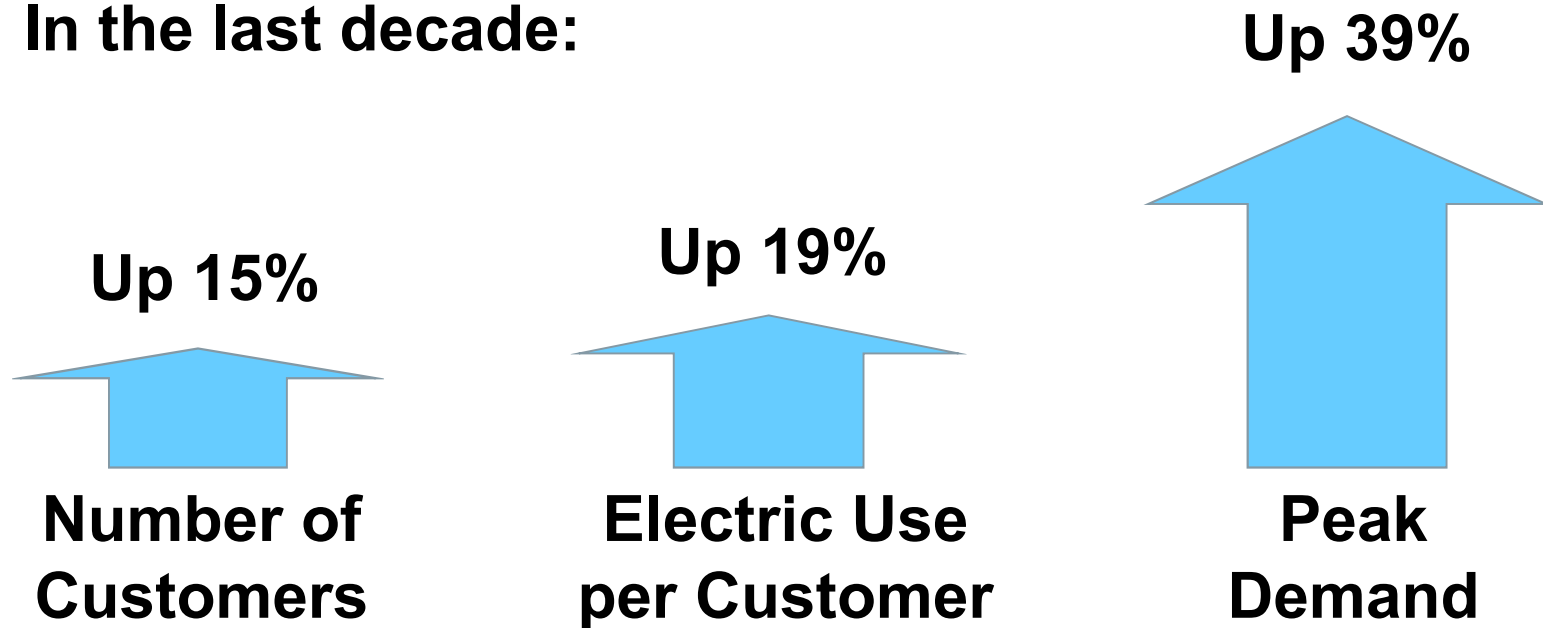
# **Xcel Energy's Energy Efficiency Programs**

**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**
- ▶ **Windsource<sup>®</sup>**
  - **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

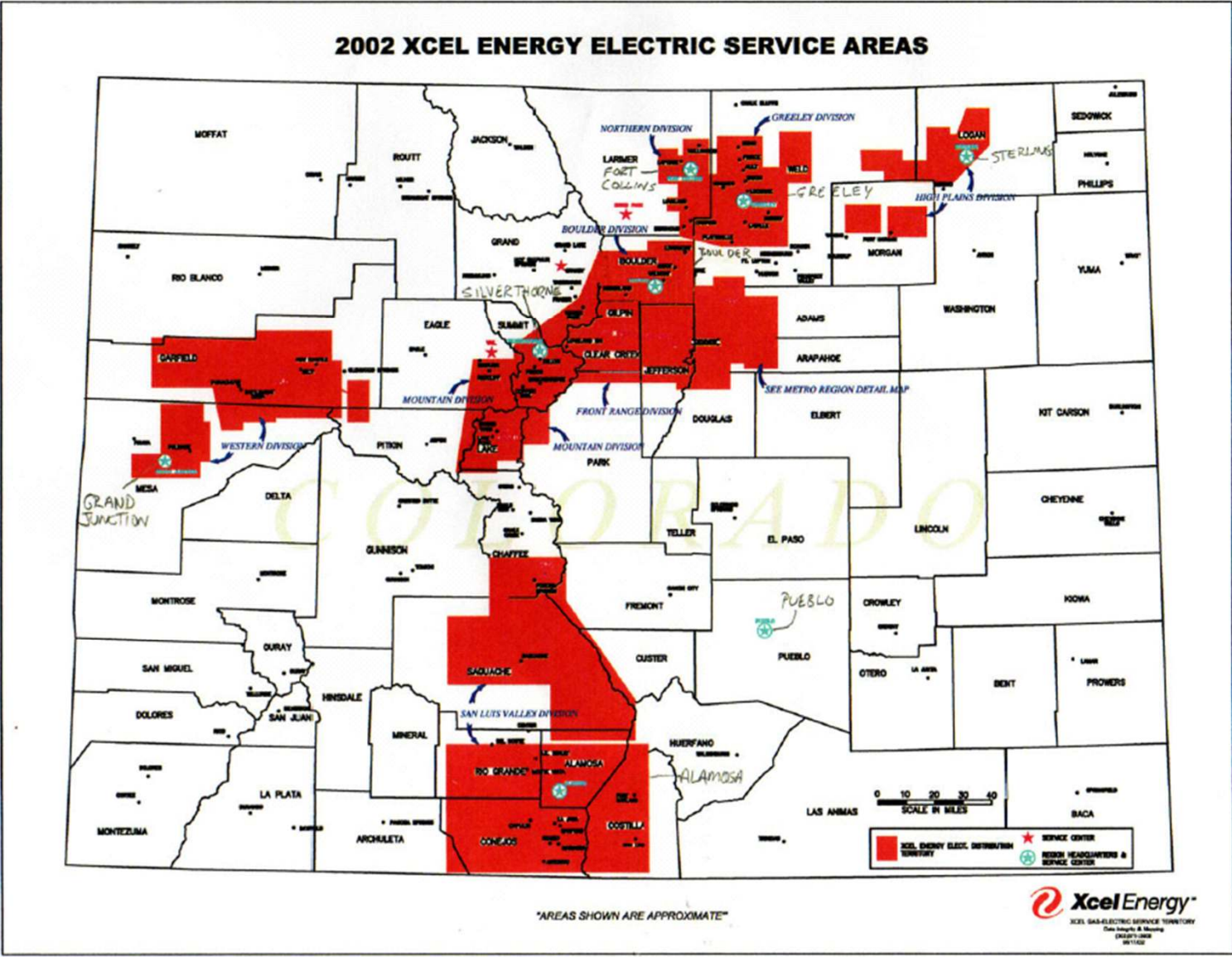
- ▶ Provides incentives to adopt energy-efficient technologies
- ▶ Rebates provide trade partners a tool to influence a customer's purchase decision
- ▶ Xcel Energy brand name and neutral 3<sup>rd</sup> party endorsement

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

# Xcel Energy's Efficiency Programs

- ▶ Cash rebates, as opposed to bill credits
- ▶ For existing facilities or new construction
- ▶ For Xcel Energy electricity business customers in Colorado
  - Adding natural gas programs in 2009 (retail gas customers only)

## 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

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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

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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


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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

## Custom Efficiency

**OLD** \$200/kW standard (\$400/kW temporary promotion)  
Electric customers only

**NEW** \$400/kW and/or \$7/Dth (MCF)  
Retail electric and gas customers only

## 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 on line

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

## New Programs Summary

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

# New Programs Summary

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

# New Programs Summary

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

# New Programs Summary

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

## **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

Derek Shockley

303-294-2082

[john.d.shockley@xcelenergy.com](mailto:john.d.shockley@xcelenergy.com)

Business Solutions Center 1-800-481-4700

Rebate info: **[xcelenergy.com/rebates](http://xcelenergy.com/rebates)**

Xcel Energy Account Managers

