



# **Xcel Energy Colorado DSM**

**Business Lighting Programs Beyond Federal Legislation  
Rocky Mountain Utility Efficiency Exchange**

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# Xcel Energy Commercial Lighting in Colorado (C&I + Small Business)

Commercial lighting is the largest source of energy savings on the business side

- **2009 (Year-End)**
  - ◆ 220 GWh total energy use reduction, 144 business (65%)
  - ◆ C&I Lighting Efficiency – 75 GWh (52% of business)
  - ◆ Small Business - .3 GWh (.2% of business)
- **2010 (Year-End)**
  - ◆ 252 GWh total, 160 GWh business (63%)
  - ◆ C&I Lighting Efficiency – 63 GWh (39% of business)
  - ◆ Small Business - 7.3 GWh (4.5% of business)
- **2011 (Year-End)**
  - ◆ 312 GWh, 179 GWh business (57%)
  - ◆ C&I Lighting Efficiency – 63 GWh (38% of business)
  - ◆ Small Business – 18.5 GWh (10% of business)

Lighting energy saving goals adjusted down from 2012 to 2013 with lower baselines

# Factors affecting decisions about energy efficient lighting

Changing baselines lead to phase-out of rebates  
LEDs lamps and fixtures are emerging to fill the gap

- Recent legislation – EPACT 2005; EISA 2007
- New DOE Rulemaking – T12, PAR halogen
- Energy Standards & Codes – ASHRAE 90.1; IECC
- Universal Waste Rule – Mercury & Recycling
- Exterior Lighting Ordinances & Federal Legislation
  
- Utility Rebates
- EPACT 2005 Tax Incentives (extended to 12/31/13)
- Building Certification – LEED; Energy Star

# Lighting – 2012 -13 Summary

## Prescriptive rebates

- Most of the base lighting rebates stay in tact
- Minor changes to Custom Efficiency 2012-13
- T-12 removal rebates phased out in 2013
- More prescriptive LED rebates in 2013

## Custom Efficiency lighting rebates

- 15 year payback requirement replaced with life of equipment
- Still must pass the TRC
- Still process a high volume of Custom Lighting Projects, especially LED

# Tips for a successful lighting efficiency programs

## ■ Keep it simple

- ◆ Prescriptive rebates, especially for small businesses
- ◆ 82% of Commercial (C&I + Small Biz) rebates for Xcel Energy were prescriptive in 2011 and 90% in 2012

## ■ Trade relations

- ◆ Net pricing for customers
- ◆ Keep informed and engaged, especially face-to-face

## ■ Manage consulting and industry groups

- ◆ Take time to explain your business case and how to partner
- ◆ Be as transparent as possible

# **Appendix, additional information 2012/2013**

# Quality Lighting

- Know what type of activity or task to be performed in the area
- Know what the recommended light levels are
- Know what other lighting issues are important for the design – glare, uniformity, reflectances, etc.

**(IES recommended light levels from IES Lighting Handbook 9<sup>th</sup> or new 10<sup>th</sup> Edition)**

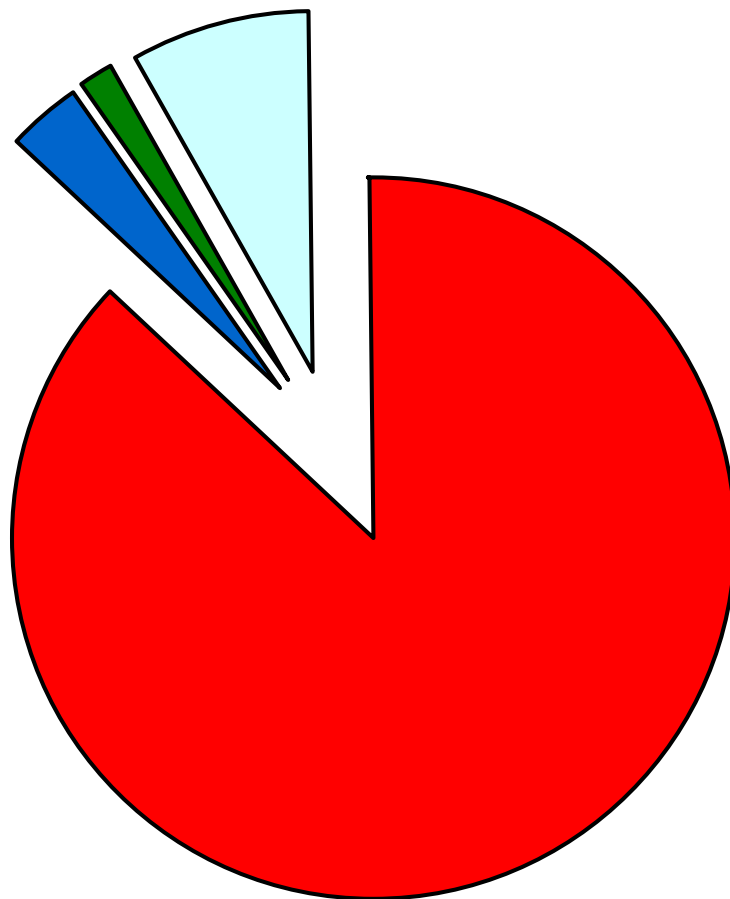
# Total Cost of Ownership

## F32T8 Fluorescent Lamp

### TCOO over life\*

■ Material	3%
■ Electricity	87%
■ Labor	8%
■ Disposal	2%

\* Nominal watts @ \$.10 per KWH  
planned maintenance at 70% of rated average life





# Lighting information resources

[www.ies.org](http://www.ies.org) Illuminating Engineering Society of North America

[www.designlights.org](http://www.designlights.org) Resource for lighting design issues

<http://www.energystar.gov> Energy Star with links to many other sites

<http://www1.eere.energy.gov/buildings/ssl/gatewaydemos.html> DOE Gateway Projects

<http://www1.eere.energy.gov/buildings/ssl/caliper.html> DOE CALiPER Testing

<http://www1.eere.energy.gov/buildings/ssl/factsheets.html> DOE SSL Fact Sheets

[www.dsireusa.org](http://www.dsireusa.org) Lists available **rebate programs around the country**

[www.cee1.org](http://www.cee1.org) Consortium for Energy Efficiency – **High Performance T8 systems**

[www.nlb.org](http://www.nlb.org) National Lighting Bureau