

➤ Summary of 60-Day Notice: Home Lighting & Recycling

Public Service Company of Colorado (“the Company”) posts this 60-Day Notice to add a new “value LED” measure to the Home Lighting & Recycling product in the 2015/16 DSM Plan.

“Value LEDs” are a lower cost alternative to ENERGY STAR certified LEDs. “Value LEDs” are currently priced \$2.50 – \$4.00 each. They typically have shorter lifetimes, 10,000 – 15,000 hours (compared to 25,000 hours for the ENERGY STAR equivalent), and may not have the features of an ENERGY STAR certified bulb, such as omni-directional light or dimmability. “Value LEDs” are not ENERGY STAR certified.

The Company plans to add “value LEDs” to the portfolio because retailers are beginning to phase-out CFLs and have plans to replace them with “value LEDs,” given the higher functionality of the “value LEDs” in addition to their lower-cost from ENERGY STAR LEDs. Adding the “value LED” to the portfolio will allow the Company to continue to offer a low-cost, energy-efficient lighting option to customers. The Company will continue to offer incentives for CFLs into 2016 for retail stores that have not yet switched to “value LEDs,” but as CFLs are phased-out, “value LEDs” will replace them.

ENERGY STAR is planning to create a provision for “value LEDs” by modifying the LED specification to reduce the lifetime to 15,000 hours beginning in 2017. In order to maintain customer satisfaction with the “value LED” product in 2016, the Company will offer incentives on major and trusted brands determined as a result of an RFP for qualified manufacturers in partnership with retailers. The rebate amount will be similar to that of a CFL ranging from \$1.00 – \$2.00; rebate amounts are negotiated with the manufacturers to obtain the best price.

This proposed measure addition results in the following forecasted impacts for the Home Lighting & Recycling product’s performance in 2016, including a slight increase in the overall product cost-effectiveness. The NTG for the measure will be updated, as needed, based on the results of the forthcoming Home Lighting & Recycling product comprehensive evaluation that is currently being finalized, to be used for all sales in 2016.

Table 1: Summary of Forecasted Impacts

Home Lighting & Recycling	“Value LED” Measure	Home Lighting & Recycling Product – 2016	
	2016	As Filed	Revised per 60-Day
Electric Savings (kWh)	40,526,146	90,793,678	109,739,457
Electric Demand Reduction (kW)	6,006	13,455	15,815
Budget* (\$)	\$1,875,000	\$11,395,617	\$11,833,117
MTRC Test Ratio	6.06	2.13	2.45

*While the anticipated expenditure impacts are forecasted, the Company acknowledges that this Notice does not change the filed budget.

Included with this Notice, is the following document:

- Redlined Home Lighting & Recycling Write-Up;
- Redlined Home Lighting & Recycling Deemed Savings; and
- Redlined Electric Forecast Summary.

These documents can be found on our website at the following link:

http://www.xcelenergy.com/Company/Rates_&_Regulations/Filings/Colorado_Demand-Side_Management

➤ Home Lighting & Recycling

A. Description

The Home Lighting & Recycling product provides resources for customers to purchase energy efficient light bulbs and dispose of them in an environmentally-friendly manner. Compact fluorescent light (CFL) and light-emitting diode (LED) bulbs are an easy way for customers to save electricity. Public Service provides an avenue for customers to purchase discounted energy efficient bulbs through local retailers. For recycling, customers can recycle CFLs free of charge through Ace Hardware.

Bulb Discounts

Public Service motivates customers to purchase CFLs and LEDs by offering in-store retail discounts. The discounts are provided through Company collaboration with the bulb manufacturers and retailers. The three entities combine resources to offer instant rebates enabling customers to purchase a variety of energy efficient bulb models at a discounted price. Public Service partners with retailers such as Home Depot, Walmart, Costco, Ace Hardware, and King Soopers. Customers receive the discounted price at the register. There is no mail-in rebate form.

In 2015 and 2016, Public Service will focus on increasing the awareness and sales of LED bulbs, placing less emphasis on standard CFL bulbs that have higher saturation rates in the market. The percentage of LED bulbs being discounted via the Home Lighting product is projected to double from 13% in 2014 to 26% in 2015, reaching 33% in 2016. It is important to build the market and usage of LEDs because the Company plans to discontinue CFL incentives in 2017. Increasing the pipeline for LED participation helps:

- to minimize the gaps in energy savings during this transition time.
- customers who were unwilling to adapt CFLs, save energy by using LED technology.
- to educate consumers and minimize confusion in the marketplace regarding LEDs, CFLs and halogen options.

As a result of the 2007 Energy Independence and Security Act (EISA) standards shift, the Company's use of a blended halogen-incandescent baseline for both LED and CFL installations has been fully transitioned to use a halogen bulb for EISA impacted bulbs starting in 2015. The baseline shift from the incandescent bulb in 2012 to the halogen bulb used in 2015 has reduced savings by 30%. The net-to-gross (NTG) ratio is 70% for CFLs and 100% for LEDs. Market saturation and the NTG ratio application for CFLs continues to decrease product impacts, reducing the energy savings claimed by PSCo by an additional 30% on top of the EISA impacts. Any further reduction in the NTG ratio would increase product costs and thereby reduce cost-effectiveness. The Home Lighting & Recycling product has planned a comprehensive evaluation in 2015, which is anticipated to shed light on actual market penetration of CFLs and LEDs, among other analyses.

The chart below demonstrates the increase in costs and the reduction in savings for the product over the past six five years. Public Service anticipates this trend ~~continuing into the future~~ to be

softened with the introduction of the Value LEDs included in this filing, although costs are still expected to greatly exceed those from the 2011-2013 timeframe.

Home Lighting & Recycling: Cost and Savings Trends

Year	CFL NTG	Average kWh per Unit	Average Rebate Cost per Unit	Rebate Cost per 100 Net Gen. GWh
2011	90%	48	\$0.98	\$ 2,024,793
2012	85%	44	\$1.34	\$ 3,073,394
2013	85%	40	\$1.36	\$ 3,421,384
2014*	70%	23	\$1.76	\$ 7,652,174
2015*	70%	22	\$2.67	\$ 12,136,364
2016**	70%	22 27	\$2.82 2.44	\$ 12,818,182 9,062,600.59

*Savings and costs for 2014-2015~~6~~ are estimated, as of October 2014.

** Savings and costs for 2016 are estimated as of December 2015.

Recycling of CFLs

The CFL Recycling component of the product provides an environmentally-friendly method for customers to dispose of CFLs. Public Service maintains a partnership with Ace Hardware to serve as the retail arm for CFL recycling. Customers can bring spent CFLs to any Ace Hardware store throughout the state and recycle them free of charge. The retailer then stores the bulbs in a covered bin until it is full. Then they ship the bulbs to the recycler in the postage paid bin. Public Service covers the cost to ship and recycle the bulbs that are submitted for recycling at participating retailers within the Company's service territory.

B. Targets, Participants & Budgets

Targets and Participants

The energy savings target for the product was derived by analyzing the market potential and historical sales data, with considering new technologies, market potential, available retail channels and participating customer segments. All Public Service electric customers are eligible to participate in the Home Lighting & Recycling product.

Budgets

The 2015 and 2016 the Home Lighting & Recycling budgets have increased significantly from previous years due to increased energy savings potential and increased incentive costs for LED bulbs. Although the costs of LEDs have dropped over the past few years, LEDs continue to be much more expensive when compared to CFLs. The incremental costs of LED bulbs are ~~44~~ ~~times~~ higher than CFLs when including a-line and specialty models in the analysis. ~~The rebate cost per kWh for CFLs is \$0.06 and for LEDs its \$0.18 per kWh — three times more expensive.~~ Public Service has worked hard to control administration and advertising costs for the product, with administration costs remaining consistent with 2014 expenditure levels. Despite these efforts, the overall 2015/2016 budgets have increased significantly due to the cost of LED incentives (82% of the product costs in 2015 are for incentives, versus 75% in 2014). LED bulb costs will continue to decline, but as higher cost 100 Watt- and 75 Watt-equivalent LEDs become more widespread, the over average cost of LEDs may increase.

C. Application Process

Customers do not need to apply to participate in the Home Lighting & Recycling product. Public Service works with retailers and manufacturers to provide a discounted price on bulbs through upstream incentives. The incentive varies depending on the type of bulb and the manufacturer/retailer partner. The customer receives the discounted price at the cash register. Incentives are paid upstream and the discounts are passed on to the customer.

D. Marketing Objectives & Strategies

The objective of the Home Lighting & Recycling product is to motivate customers to purchase energy efficient bulbs, persuade them to try using LEDs, and encourage them to recycle CFLs when they burn out. Public Service will focus most of the advertising on building awareness and sales of LED bulbs in 2015 and 2016. The Company will promote the product through various media channels which may include television, radio, in-store signage, publications, bill inserts, local events, and on the Xcel Energy website. The peak sales period for CFLs is in the fall and winter, as such, promotions are focused during these peak time periods.

Public Service uses an RFP process each year to select participating retailers and endeavors to enable partnership with a variety of retailers (including big box, mass merchandiser, and hardware and grocery outlets) to ensure optimal pricing and to help reduce free-ridership.

CFL Recycling is marketed locally through the local retail partner, Ace Hardware. The Company also markets recycling through CFL and LED promotions and through the Xcel Energy website.

E. Product-Specific Policies

To ensure optimal performance of the discounted bulbs, Public Service ~~requires all discounted bulbs to be ENERGY STAR certified~~ will use ENERGY STAR certification to qualify eligible bulbs, except where an ENERGY STAR standard has not yet been set for a bulb model; those models will otherwise be qualified through completion of an RFP for manufacturers, in partnership with retailers, to identify major and trusted brands.

Public Service selects retailers within the Colorado service area and assumes that the customers purchasing the discounted bulbs live within the given area. Although there may be crossover sales with bordering utilities' territories, the Company assumes that the crossover coming in and out of the territories is equal.

The third-party implementer will be responsible for delivering the calculated savings, actual high efficiency product prices, and the types and quantities sold each year to be used in the DSM Annual Status Report.

Public Service currently uses a third-party implementer for CFL recycling. The selected implementer is known to be the best in industry because they separate the CFL components by hand to ensure that hazardous materials do not end up in the ground soil or water. The third-

party implementer also provides bins made of recycled material and recycles the bins that the bulbs are shipped in. In addition, they provide certificates of proper recycling.

F. Stakeholder Involvement

Xcel Energy collaborates with several organizations to monitor and incorporate best practices into lighting product design. These activities include: serving on Consortium for Energy Efficiency's lighting committee,¹ participating annually in the national ENERGY STAR Lighting meeting, and interfacing and working with E-Source, the American Council for an Energy-Efficient Economy (ACEEE), the U.S. Environmental Protection Agency, and the U.S. Department of Energy.

G. Rebates & Incentives

The upstream markdown incentives account for 30% to 70% of the incremental cost, depending on the bulb. The cost savings are passed on to the customer as an instant rebate.

¹ CEE, Committee Work: <http://www.cee1.org/content/committee-work>.