

➤ **Summary of 60-Day Notice: Lighting Efficiency**

The following 60-Day Notice summarizes Public Service Company of Colorado's (the "Company") action to update the technical assumptions and rebate offerings in the Business Lighting Efficiency product.

The Company is including with this Notice:

- Redlined product write-up;
- Redlined Technical Assumptions worksheets; and
- Updated cost-benefit analyses.

A copy of this notice is available on our website at:

https://www.xcelenergy.com/company/rates_and_regulations/filings/colorado_demand-side_management

The Company is transitioning cost-effective LED Direct Linear Ambient Kits from a Custom Efficiency offering to a prescriptive Lighting Efficiency offering and updating the rebate submission deadline for the product.

Direct Linear Ambient Retrofit Kits

Customers are currently using the Custom Efficiency Lighting Rebate for LED Direct Linear Ambient Kits. The Custom Efficiency Rebate requires an individual engineering analysis for every application. This 60-Day Notice will shift the cost-effective LED Direct Linear Ambient Kits that are going through the Custom product to a prescriptive rebate offering.

The Company will calculate energy savings for this new rebate using current, filed deemed savings assumptions. By transitioning to a prescriptive rebate, the Company will save engineering analysis time and money and provide the customer a less onerous rebate option. The new measures also offer a lower cost option for customers going through the prescriptive channel by providing a retrofit kit option to existing lighting fixtures rather than replacing the full fixture.

Rebate Paperwork Submission Extension

Many customers and trade partners are encountering manufacturing and supply chain shortages due to COVID-19. The company plans to extend the rebate submission deadline from 12 months to 24 months to support customers and trade partners. In addition, this change will also assist customers with projects that have longer timeframes and reduce additional administrative burdens on customers but will not impact the product forecast.

Table 1: Summary of Forecasted Impacts: Business Lighting Efficiency

	2021		2022	
	<i>As Filed</i>	<i>Revised per 60-day</i>	<i>As Filed</i>	<i>Revised per 60-day</i>
Electric Savings (kWh)	93,506,351	93,618,633	93,510,554	93,847,489
Electric Demand Reduction (kW)	14,525	14,545	14,525	14,585
Budget*	\$8,174,306	\$8,182,901	\$8,176,196	\$8,201,981
MTRC Test Ratio	1.71	1.73	1.72	1.74

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

➤ Lighting Efficiency

A. Description

The Lighting Efficiency product offers prescriptive and custom rebates to Xcel Energy electric business customers who install qualifying energy-efficient lighting equipment in existing Rebates are offered to encourage customers to purchase energy-efficient lighting by lowering the upfront costs associated with this equipment.

The product's main offerings include the following:

- Prescriptive rebates for qualifying lighting measures and projects¹ that save energy such as:
 - LED fixtures that replace inefficient systems, including incandescent, HID and fluorescent. LED measures include both interior and exterior fixtures, retrofit kits, and lamps for retrofit applications;
- Custom rebates for energy-saving lighting projects that do not fall within the requirements of the prescriptive rebate;
- Midstream LED lamp rebates called Business LED Instant Rebate; and
- Networked Lighting Control Rebates for qualifying systems controlling LED technology.

Prescriptive Lighting Rebates

The product offers rebates for qualifying lighting equipment that is more efficient than existing equipment in retrofit situations. Lighting measures applicable to a prescriptive rebate format are ones that are commonly installed in the marketplace and have an easily identifiable means to determine energy savings.

Custom Lighting Rebates

The program pays custom rebates for qualifying energy saving measures that are not included under the prescriptive rebate category. Such projects are evaluated under the Custom Efficiency analysis and must follow the rules of the Custom Efficiency program. Requirements include that the customer obtains and provides all information needed to analyze the energy savings potential of the project. In addition, for advanced lighting controls projects all equipment must be new and the control retrofit must be for an existing building.

Additionally, as the importance of managing peak demand continues to grow, the Company will explore ways to incentivize and incorporate load management technologies and strategies. Interval data from advanced meters will help the Company better identify strategies to shift energy use from peak to off-peak periods.

Business LED Instant Rebates

¹http://www.xcelenergy.com/Save_Money_&_Energy/Rebates/Lighting_Efficiency_-_CO

The product offers upfront rebates to customers on qualifying LED screw-in or pin-based lamps and downlight retrofit kits and fixtures that are purchased from distributors participating in the LED Instant rebate program.

B. Targets, Participants & Budgets

Targets and Participants

The product's participation and energy savings targets were determined by looking at historical participation levels, as well as the large number of LED products that are expected to be commercially available during the time period of this Plan. Previous project characteristics, including equipment type/mix, were also used to develop projected average cents-per-kWh rebate for each measure.

Budgets

Historical expenditures were analyzed to project the budget. The main budget drivers include:

- *Participant Incentives* – The vast majority of the budget is allocated for rebates. This budget reflects the new rebate levels and projected customer participation in each measure, which was based on 2019 and some of 2020 participation across the offerings.
- *Administration* – These budgets are based on past product performance with a slight increase built in for expanded product offerings, engineering, and account management involvement. The budget also includes third-party implementer costs for the implementation of Business LED Instant Rebate efforts, technical assistance with complex lighting projects, and preparing rebate paperwork
- *Advertising and Promotion* – A promotional budget was developed based on historical expenditures on marketing activities. Promotions and paid advertising are targeted to customers and trade partners and typically focus around activities such as new or revised product offerings, case studies featuring successful projects, educational opportunities such as events, and bonus rebates.

C. Application Process

The Company promotes the Lighting Efficiency product through several channels, including the Company's website, advertising, direct mail, email promotions or through the lighting trade. Account Managers work directly with the Company's largest customers to help them identify energy saving opportunities in lighting and BSC representatives are available for all business customers, particularly small- and mid-sized business customers, who need information on lighting rebate products.

Lighting Efficiency Retrofit Application

The application process for the prescriptive retrofit product is similar to other prescriptive products. Customers may apply for rebates by completing the application and providing a detailed invoice for the newly installed equipment. The customers may submit a rebate application after the equipment has been purchased and installed. The replacement of fixtures must provide equivalent lighting levels between the baseline and proposed scenarios and result in energy savings.

The equipment must be new and meet all the qualifications detailed on the application form. After the customer has installed the equipment, the application and invoice must be submitted to the Company within ~~12~~24 months of the invoice date for retrofit projects. Once the paperwork is completed and submitted, rebate checks will be mailed to the customer as indicated on the application within six to eight weeks.

Business LED Instant Rebates

At the point of sale, participating distributors validate that the end-use customer is an active customer within Xcel Energy electric service territory. Participating distributors will apply an incentive to the retail price to decrease the qualified product cost. Customers will not be required to submit a rebate application as the participating distributor will provide the sales data to the utility.

Custom Efficiency Lighting

Applications for energy saving lighting projects that do not fit into the prescriptive paths may be reviewed using the Custom Efficiency or Advanced Lighting Control product application and the accompanying Lighting Evaluation Worksheet.

D. Marketing Objectives & Strategies

The key marketing objective is to raise awareness, interest and participation in the Lighting Efficiency product, contributing to goals for energy savings and demand reduction.

Marketing Strategy

Lighting Efficiency is primarily promoted through Company Account Managers, BSC representatives via inbound and outbound telemarketing, through Colorado's lighting and electrical trade via the Company's Channel Managers, and by traditional marketing vehicles such as advertising, mailings, Web content and tools, email and other sales promotions.

Significant market segments for potential Lighting Efficiency savings include: office buildings, manufacturing sites, retail establishments, schools, and 24-hour facilities. Marketing campaigns targeted to those customer segments are executed during one-on-one Account Manager meetings, BSC scripted calls, and/or customer-direct that drive inquiries to the Company's inbound phone center.

Marketing to Trade Partners

The Company's outreach and relationship building with lighting and electrical trade, professional engineers, architects and lighting designers is another key strategy to reach important business segments and indirectly influence the purchase and installation of energy-efficient lighting systems. The Company establishes and maintains contact with this audience by:

- In-person training and presentations by the Channel Managers at industry events and trade shows, such as the Energy Efficiency Expo, for both customers and trade allies;
- The Lighting Advisory Board, described in section *F. Stakeholder Involvement* below;
- *Energy Exchange*, an email that is sent to the trade discussing energy efficiency lighting applications, case studies, product changes, and other pertinent topics; and

- Trade website,² including applications, specific brochures and informational pieces directed toward the trade, and updates on product offerings.

Marketing to Small Business Customers

The Company accesses this harder-to-reach market primarily through direct mail, email, and the BSC, as well as via outreach conducted by the Company's Small Business Solutions third-party implementer.

In addition, several marketing pieces are available on the Company's website³ or viewing or download. These pieces are targeted to large-, medium- and small-sized business customers, as well as trade partners. The website offers information on lighting technologies, case studies of successful lighting upgrades, and external sources highlighting reasons to pursue lighting upgrades or implement efficient lighting sources.

- *Prescriptive Rebate Applications* – Applications detail product requirements, rebate levels and additional information to help customers complete the form and submit it for rebate with accompanying invoices and equipment specifications.
- *Resource Documents* – The Lighting Efficiency webpage links to several documents on energy efficient lighting technologies, written by outside organizations such as E-Source, that further identify lighting efficiency sources and opportunities.

E. Product-Specific Policies

Lighting Efficiency has a number of product-specific policies:

- All rebated equipment must be new, meet all product rules and requirements, and the application must be submitted within 12-24 months of the invoice date for retrofit projects.
- Non-DLC and non-ENERGY STAR® products must meet the DLC or ENERGY STAR® product eligibility category definitions.
- Customers who purchase lights in bulk can earn rebates on select LED lamps for stocking purposes. Lamps in storage must remain on the premises.
- In cases where the customer is unable to obtain an equipment invoice, the Company will send an Account Manager to complete an onsite field verification to confirm that equipment was installed as stated on the application.

F. Stakeholder Involvement

Stakeholder involvement in the Lighting Efficiency product comes through a Lighting Advisory Board and the quarterly DSM Roundtable Meetings. The Lighting Advisory Board was formed as a collaborative effort between several key lighting professionals and the Company's management team. The objectives of the board are to identify gaps in the Company's product

²http://www.xcelenergy.com/Energy_Partners/Trade_Partners/Commercial_Programs/Lighting_Efficiency_for_Trade_Partners_-_CO

³http://www.xcelenergy.com/Save_Money_&_Energy/Rebates/Lighting_Efficiency_-_CO

offerings, suggest areas of improvement, and to offer a forum for open discussion of lighting topics. Several recommendations from the board have been addressed through the Company's product development process and incorporated into the product. The Board will continue to meet on a regular basis, or as long as needed.

G. Rebates & Incentives

The Lighting Efficiency product offers rebates through the retrofit prescriptive component, and/or Custom Efficiency and Advanced Lighting Controls, and/or the Business LED Instant Rebate component.

The Company will use the most appropriate rebate channel to implement rebates.

LIGHTING EFFICIENCY**2021 Net Present Cost Benefit Summary Analysis For All Participants**

	Participant Test (\$Total)	Utility Test (\$Total)	Rate Impact Test (\$Total)	Modified Total Resource Test (\$Total)
Benefits				
Avoided Revenue Requirements				
Generation Capacity	N/A	\$13,484,626	\$13,484,626	\$13,484,626
Trans. & Dist. Capacity	N/A	\$1,688,770	\$1,688,770	\$1,688,770
Marginal Energy	N/A	\$19,314,159	\$19,314,159	\$19,314,159
Avoided Emissions (CO2)	N/A	N/A	N/A	\$15,502,870
Subtotal				\$49,990,425
Non-Energy Benefits Adder (20.0%)				
Subtotal	N/A	\$34,487,555	\$34,487,555	\$56,887,936
Participant Benefits				
Bill Reduction - Electric	\$74,791,370	N/A	N/A	N/A
Participant Rebates and Incentives	\$8,182,901	N/A	N/A	\$8,182,901
Incremental Capital Savings	\$0	N/A	N/A	\$0
Incremental O&M Savings	\$0	N/A	N/A	\$0
Subtotal	\$82,974,271	N/A	N/A	\$8,182,901
Total Benefits	\$82,974,271	\$34,487,555	\$34,487,555	\$65,070,837
Costs				
Utility Project Costs				
Program Planning & Design	N/A	\$0	\$0	\$0
Administration & Program Delivery	N/A	\$2,792,144	\$2,792,144	\$2,792,144
Advertising/Promotion/Customer Ed	N/A	\$1,200,000	\$1,200,000	\$1,200,000
Participant Rebates and Incentives	N/A	\$8,182,901	\$8,182,901	\$8,182,901
Equipment & Installation	N/A	\$0	\$0	\$0
Measurement and Verification	N/A	\$55,000	\$55,000	\$55,000
Subtotal	N/A	\$12,230,044	\$12,230,044	\$12,230,044
Utility Revenue Reduction				
Revenue Reduction - Electric	N/A	N/A	\$74,791,370	N/A
Subtotal	N/A	N/A	\$74,791,370	N/A
Participant Costs				
Incremental Capital Costs	\$33,547,352	N/A	N/A	\$25,218,212
Incremental O&M Costs	\$333,341	N/A	N/A	\$246,422
Subtotal	\$33,880,693	N/A	N/A	\$25,464,634
Total Costs	\$33,880,693	\$12,230,044	\$87,021,415	\$37,694,678
Net Benefit (Cost)	\$49,093,578	\$22,257,511	(\$52,533,860)	\$27,376,159
Benefit/Cost Ratio	2.45	2.82	0.40	1.73

Note: Dollar values represent present value of impacts accumulated over the lifetime of the measures.

2021**ELECTRIC****GOAL****Input Summary and Totals****Program "Inputs" per Customer kW and per Participant**

Lifetime (Weighted on Generator kWh)	A	14.4 years
T & D Loss Factor (Energy)	B	5.33%
T & D Loss Factor (Demand)	C	7.71%
Net-to-Gross (Energy)	D	75.45%
Net-to-Gross (Demand)	E	75.75%
Installation Rate (Energy)	F	99.61%
Installation Rate (Demand)	G	99.53%
Net coincident kW Saved at Generator	H	0.03 kW
Gross Annual kWh Saved at Customer	I	243.02 kWh
Net Annual kWh Saved at Generator	J	192.91 kWh

Program Summary All Participants

Total Budget	K	\$12,230,044
Net coincident kW Saved at Generator	L	14,545 kW
Gross Annual kWh Saved at Customer	M	117,937,700 kWh
Net Annual kWh Saved at Generator	N	93,618,663 kWh
Total MTRC Net Benefits with Adder	O	\$27,376,159
Total MTRC Net Benefits without Adder	P	\$20,478,648

Utility Program Cost per kWh Lifetime	K/(A x N)	\$0.0090
Utility Program Cost per kW at Gen	K/L	\$841

Avoided Lifetime CO2 Emissions, Total Program (tons CO2)	395,172
---	----------------

LIGHTING EFFICIENCY**2022 Net Present Cost Benefit Summary Analysis For All Participants**

	Participant Test (\$Total)	Utility Test (\$Total)	Rate Impact Test (\$Total)	Modified Total Resource Test (\$Total)
Benefits				
Avoided Revenue Requirements				
Generation Capacity	N/A	\$13,805,610	\$13,805,610	\$13,805,610
Trans. & Dist. Capacity	N/A	\$1,728,978	\$1,728,978	\$1,728,978
Marginal Energy	N/A	\$19,890,748	\$19,890,748	\$19,890,748
Avoided Emissions (CO2)	N/A	N/A	N/A	\$14,923,442
Subtotal				\$50,348,778
Non-Energy Benefits Adder (20.0%)				\$7,085,067
Subtotal	N/A	\$35,425,335	\$35,425,335	\$57,433,845
Participant Benefits				
Bill Reduction - Electric	\$77,028,419	N/A	N/A	N/A
Participant Rebates and Incentives	\$8,201,981	N/A	N/A	\$8,201,981
Incremental Capital Savings	\$0	N/A	N/A	\$0
Incremental O&M Savings	\$0	N/A	N/A	\$0
Subtotal	\$85,230,400	N/A	N/A	\$8,201,981
Total Benefits	\$85,230,400	\$35,425,335	\$35,425,335	\$65,635,826
Costs				
Utility Project Costs				
Program Planning & Design	N/A	\$0	\$0	\$0
Administration & Program Delivery	N/A	\$2,685,624	\$2,685,624	\$2,685,624
Advertising/Promotion/Customer Ed	N/A	\$1,200,000	\$1,200,000	\$1,200,000
Participant Rebates and Incentives	N/A	\$8,201,981	\$8,201,981	\$8,201,981
Equipment & Installation	N/A	\$0	\$0	\$0
Measurement and Verification	N/A	\$55,000	\$55,000	\$55,000
Subtotal	N/A	\$12,142,604	\$12,142,604	\$12,142,604
Utility Revenue Reduction				
Revenue Reduction - Electric	N/A	N/A	\$77,028,419	N/A
Subtotal	N/A	N/A	\$77,028,419	N/A
Participant Costs				
Incremental Capital Costs	\$33,689,932	N/A	N/A	\$25,322,106
Incremental O&M Costs	\$333,760	N/A	N/A	\$246,725
Subtotal	\$34,023,692	N/A	N/A	\$25,568,831
Total Costs	\$34,023,692	\$12,142,604	\$89,171,024	\$37,711,435
Net Benefit (Cost)	\$51,206,708	\$23,282,731	(\$53,745,688)	\$27,924,390
Benefit/Cost Ratio	2.51	2.92	0.40	1.74

Note: Dollar values represent present value of impacts accumulated over the lifetime of the measures.

2022**ELECTRIC****GOAL****Input Summary and Totals****Program "Inputs" per Customer kW and per Participant**

Lifetime (Weighted on Generator kWh)	A	14.5 years
T & D Loss Factor (Energy)	B	5.33%
T & D Loss Factor (Demand)	C	7.71%
Net-to-Gross (Energy)	D	75.45%
Net-to-Gross (Demand)	E	75.74%
Installation Rate (Energy)	F	99.61%
Installation Rate (Demand)	G	99.53%
Net coincident kW Saved at Generator	H	0.03 kW
Gross Annual kWh Saved at Customer	I	243.21 kWh
Net Annual kWh Saved at Generator	J	193.04 kWh

Program Summary All Participants

Total Budget	K	\$12,142,604
Net coincident kW Saved at Generator	L	14,585 kW
Gross Annual kWh Saved at Customer	M	118,236,319 kWh
Net Annual kWh Saved at Generator	N	93,847,489 kWh
Total MTRC Net Benefits with Adder	O	\$27,924,390
Total MTRC Net Benefits without Adder	P	\$20,839,323

Utility Program Cost per kWh Lifetime	K/(A x N)	\$0.0089
Utility Program Cost per kW at Gen	K/ L	\$833

Avoided Lifetime CO2 Emissions, Total Program (tons CO2)	365,674
---	----------------