

## ➤ **Summary of 60-Day Notice: ENERGY STAR Retail Products Platform Pilot**

Public Service Company of Colorado (“the Company”) posts this 60-Day Notice to add an ENERGY STAR Retail Products Platform Pilot to the 2016 DSM Plan.

The Company faces increased challenges in acquiring energy savings from consumer products programs with market share and per-unit efficiency increases for consumer products. With shrinking sales volume and smaller per-unit rebates available, national retailers are also having increasing difficulty justifying participation in traditional efficiency programs which vary from region to region with different utilities and their associated disparate rules and offerings.

Xcel Energy will engage national retailers through the ENERGY STAR Retail Products Platform (ESRPP), an initiative facilitated by the U.S. Environmental Protection Agency. The Company’s pilot program will engage retailers through midstream incentive payments to increase the demand and supply for the most energy efficient residential plug-load and appliance products on the market, driving greater sales of select ENERGY STAR<sup>®</sup> certified products to customers. With a combination of incentives and engagement, retailers will assort, stock, and promote more energy-efficient models than they would have absent the pilot. In 2016, covered products will include freezers, clothes dryers, room air cleaners, room air conditioners, and sound bars.

**Table 1: Summary of Forecasted Impacts**

<b>ESRPP Pilot</b>	<b>2016</b>
Net Electric Savings (kWh)	821,415
Electric Demand Reduction (kW)	221
Natural Gas Energy Savings (Dth)	359
Budget (\$)	\$544,145*
Electric MTRC Test Ratio	0.54
Natural Gas MTRC Test Ratio	0.95

\*\$497,544 electric; \$46,601 natural gas.

The Company notes that while the pilot is not expected to be cost-effective during 2016, economies of scale as well as the addition and subtraction of measures with higher and lower levels of cost-effectiveness, respectively, will be employed in efforts to lead to an eventual cost-effective program in the future.

Included with this Notice, are the following documents:

- ENERGY STAR Retail Products Platform Write-Up;
- Deemed Savings Technical Assumptions;
- Electric Forecast Summary;
- Natural Gas Forecast Summary; and
- Product Analysis prepared by the Cadmus Group.

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

[http://www.xcelenergy.com/Company/Rates\\_&\\_Regulations/Filings/Colorado\\_Demand-Side\\_Management](http://www.xcelenergy.com/Company/Rates_&_Regulations/Filings/Colorado_Demand-Side_Management)

## ➤ ENERGY STAR Retail Products Platform Pilot

### A. Description

This pilot will engage retailers through midstream incentive payments to increase the demand and supply for the most energy efficient residential plug-load and appliance products on the market, driving greater sales of select ENERGY STAR<sup>®</sup> certified products to customers. With a combination of incentives and engagement, retailers will assort, stock, and promote more energy efficient models than they would have absent the pilot. The pilot will run through calendar year 2016. Eligible products include freezers, clothes dryers, room air cleaners, room air conditioners, and sound bars. The shift in product availability will generate energy savings as utility customers purchase and install these more efficient models in their homes.

Xcel Energy will engage national retailers through the ENERGY STAR Retail Products Platform (ESRPP), an initiative facilitated by the U.S. Environmental Protection Agency (EPA). The ESRPP is based on the concept of developing a national-level structure for the design of pilot delivery and engagement with retailers. The ESRPP gives sponsors new access to a low-cost retail program through national coordination. The goal of the ESRPP is to transform markets by streamlining and harmonizing energy efficiency programs with retailers, making them less complex and more cost-effective.

#### Target Market

Market intervention strategies are aimed at a highly concentrated group of retail decision makers. In many energy consuming product categories, a small group of retail merchants and marketers decide which products consumers see on the retail floor, are promoted in-store, advertised in marketing materials and featured on the web. These same retail merchants and marketers purchase millions, and sometimes billions, of dollars of products from global manufacturers which earns retailers significant influence in determining market price and features (such as those contributing to energy performance) of products most prevalent in the market.

#### Pilot Delivery

The strategy for ESRPP Pilot delivery includes the following main elements:

1. **Pilot Design:** Xcel Energy intends to adhere to a consistent national program design and common program implementation to promote core product categories using exact specifications, and will receive a standard set of data from participating retailers. Product categories can be shifted in the longer term as markets develop and change.
2. **Retailer Engagement:** Xcel Energy will work through a partnership framework facilitated by EPA to partner with national retailers involved with the ESRPP. Retail Partners will supply the data that will help Xcel Energy develop a local baseline for sales of the core product categories and sales goals for the duration of the pilot cycle. At periodic stages throughout the pilot cycle, Xcel Energy will be given sales data as agreed upon prior to pilot launch.

3. **Customer Outreach and Education:** Xcel Energy and participating retailers will leverage national marketing messages (with regional enhancements) and co-branded marketing templates developed by EPA in collaboration with Retailer Partners and pilot sponsors participating in the ESRPP, and tailor them directly to the needs of customers in Xcel Energy's service territory.
4. **Incentive Coordination and Processing:** At periodic stages throughout the pilot cycle, Xcel Energy will provide participating retailers with incentive payments as agreed prior to pilot launch in Xcel Energy's PSCo service territory.
5. **Pilot Performance Tracking and Improvement:** At periodic stages throughout the pilot cycle, Xcel Energy will compare aggregate baseline energy savings data to aggregate achieved energy savings data and assess changes in qualified product market share for product categories in order to make recommendations for strengthening and improving the pilot model for the next period.
6. **Reporting:** A predefined set of consistent and detailed category-level sales data will be provided by participating retailers for the purpose of the Company's internal, regulatory, and evaluation, measurement, and verification (EM&V) requirements. Retailers' "business-as-usual" sales strategies for the core products and their chosen sales tactics that were adopted and implemented as a result of Xcel Energy's incentive payment will also provide evidence of pilot performance.

## B. Targets, Participants & Budgets

### Targets and Participants

The energy savings targets for this product were derived from historical data, market data, and equipment deemed savings values. Table 1 below summarizes the gross unit energy savings, assumed lifetimes, and current market share of each pilot measure.

**Table 1: ESRPP Pilot Measure Impacts Summary**

	<b>Freezers</b>	<b>Clothes Dryers</b>	<b>Room Air Cleaners</b>	<b>Room Air Conditioners</b>	<b>Sound Bars</b>
Gross Energy Savings ( <i>kWh/yr</i> ) per Unit	31	160**	214	46	66
Lifetime ( <i>years</i> )	11	12	9	9	7
Market Share of ENERGY STAR Products	29%*	15% in 2015	22%*	50% 2015 30% 2016	35%*

\*As of 2014. \*\*Gas dryer impacts are ~8 kWh/yr and ~0.5 Dth/yr.

Table 2 below summarizes the Company's forecast achievement and participation for the pilot period of 2016.

**Table 2: ESRPP Pilot Targets, 2016**

<b>Total Participants</b>	<b>Total Net Gen kW</b>	<b>Net Gen kWh</b>	<b>Net Dth</b>
10,218	221	821,415	359

**Budgets**

The forecasted expenditures in 2016 for this product are based on projected participation levels, promotion, and administration expenses. The majority of the product costs are for administration, promotions, and retailer incentives.

The total budget for the pilot will be \$544,145 for program year 2016. Below is a summary of the forecasted pilot costs by year broken out by fuel type.

**Table 3: Forecasted Pilot Budget, 2016**

<b>Budget Categories</b>	<b>Electric Budget</b>	<b>Gas Budget</b>	<b>Total</b>
Program Planning & Design			
Admin & Program Delivery	\$162,727	\$5,575	\$168,302
Advertising/Promo	\$96,574	\$3,309	\$99,883
Participant Rebates and Incentives	\$218,928	\$37,055	\$255,983
Equipment & Installation			
M&V	\$19,315	\$662	\$19,977
<b>Total</b>	<b>\$497,544</b>	<b>\$46,601</b>	<b>\$544,145</b>

**Tracking and Reporting**

Retailers will help Xcel Energy establish a sales baseline by providing sales data for the 12 months preceding pilot launch for products sold for each product category in participating stores in Xcel Energy's service territory. On a monthly basis, participating retailers will provide sales and model information at the store level. This will be uploaded into a tracking tool with ENERGY STAR product information to identify category-level (qualified and non-qualified) sales and to capture accurate measure-level gross energy consumption and savings for units sold. The Xcel Energy implementation team, with the assistance of Retail Partners, will also:

- Verify the reporting of measures for a statistical sample of projects to maintain quality assurance;
- Supply tracking database extracts on an as-needed basis, to be determined by EM&V contractors, to properly measure and verify the pilot savings and ensure accuracy in quarterly reports; and/or
- Track other short-term and mid-term indicators over time to make sure that the pilot is on track to achieve its ultimate objective, which is market transformation.

**C. Application Process**

The Company will work with its Retail Partners to establish qualifying retail locations that are located within the Company's PSCo service territory. Additional methods to address the

spillover effect related to purchases by consumers not served by the Company will be explored and evaluated through the course of the Pilot.

No application forms are necessary for customers, given the upstream approach of this pilot.

## **D. Marketing Objectives & Strategies**

The Company faces increased challenges in acquiring energy savings from consumer products programs as market share and per-unit efficiency increases for consumer products. The higher efficiency of average units decreases the incremental savings available from more efficient units, which reduces the cost-effectiveness of traditional consumer rebate approaches. With shrinking sales volume and smaller per-unit rebates available, national retailers are also having increasing difficulty justifying participation in traditional efficiency programs which vary from region to region with different utilities and their associated disparate rules and offerings. The Company faces rising efficiency goals and higher implementation costs as easy-to-implement program opportunities decline or disappear from the market. The table below summarizes current market barriers and ESRPP Pilot elements that address these barriers.

<b><i>Traditional Market Barriers</i></b>	<b><i>ESRPP Pilot Approach</i></b>
<ul style="list-style-type: none"> <li>Increasing market share of efficient units and dwindling per-unit energy savings of higher efficient units render traditional consumer rebates less cost-effective.</li> </ul>	<ul style="list-style-type: none"> <li>Smaller per-unit incentive payments are directed toward the retailer rather than the customer to affect increased stocking and sales of targeted measures.</li> </ul>
<ul style="list-style-type: none"> <li>Retailers are becoming less interested in participating in utility energy efficiency programs, because they are not core to their business; they introduce cost and complexity; and consumer incentives offered by the utility may not be perceived as offering value and efficacy as a tool for driving sales.</li> </ul>	<ul style="list-style-type: none"> <li>ESRPP, as a national platform, reduces complexity of multiple program approaches and requirements while allowing retailers the flexibility to determine the best path toward reaching sales goals.</li> <li>Incentive payments to retailers help to engage and encourage them to offer ENERGY STAR products to their customers.</li> </ul>
<ul style="list-style-type: none"> <li>Administrative costs as a percentage of program costs for retailer-based program implementation are on the rise.</li> <li>Costs for rebate administration may prohibit some products whose incremental costs would yield small rebates from being delivered as cost-effective downstream programs.</li> </ul>	<ul style="list-style-type: none"> <li>Nationally facilitated relationships with retailers and a uniform program structure will increase operational efficiencies and reduce administrative costs for both Xcel Energy and retailer partners.</li> </ul>
<ul style="list-style-type: none"> <li>Customers may not always follow through on rebate/incentive applications regardless</li> </ul>	<ul style="list-style-type: none"> <li>ESRPP eliminates the customer responsibility for submitting rebate</li> </ul>

<b><i>Traditional Market Barriers</i></b>	<b><i>ESRPP Pilot Approach</i></b>
of their purchase of an ENERGY STAR certified product due to low per-unit rebates or the ease of online purchasing.	forms and instead relies on facilitated access to data from participating retailers.
<ul style="list-style-type: none"> <li>Obtaining high quality and detailed sales data from retailers to verify savings.</li> </ul>	<ul style="list-style-type: none"> <li>Retailer Partners in ESRPP have already agreed to provide unprecedented access to category-level sales data required for EM&amp;V activities.</li> </ul>
<ul style="list-style-type: none"> <li>Quickly evolving retail industry and small per unit energy savings make it difficult to successfully engage consumers in the traditional retail environment due to varying rules and program offerings from region to region across the country.</li> </ul>	<ul style="list-style-type: none"> <li>Collaboration of utility program administrators through the ESRPP creates opportunities to develop cost-effective platforms to engage customers.</li> </ul>

## **E. Product-Specific Policies**

While the current set of products contained in the platform for the initial pilot launch have been firmly selected, in the future changes will be made as PSCo successfully transforms the market in our service territory to more efficient products. This transition will be triggered by changes in market share, the development of new products, changes to ENERGY STAR or minimum efficiency standards, or other factors. The goal will be to stay ahead of the market and closely monitor changes in energy efficient products with the goal of maximizing cost-effective energy savings over an increasing number of consumer electronics and appliances. Table 4 below identifies the key metrics for gauging pilot success.

**Table 4: Pilot Metrics and Research Questions to be Addressed**

<b><i>Research Question Addressed</i></b>	<b><i>Metric</i></b>
Can this midstream pilot approach yield measureable and cost-effective energy saving impacts?	Gross energy and demand savings associated with purchased/installed measures (purchases x unit energy savings for each qualified product)
	Pilot implementation costs incurred
	Pilot cost-effectiveness (Modified Total Resource Cost (MTRC) test)
Can this midstream pilot approach deliver market transformation?	Increase in number and proportion of qualifying products stocked at participating retailers
	Number of qualifying measures purchased by model/product
	Market share (qualified units as a share of all units sold within each product category)
To what degree are changing codes and standards resulting in	Gross energy and demand savings associated with purchased/installed measures due to adoption of codes

<i><b>Research Question Addressed</b></i>	<i><b>Metric</b></i>
“naturally-occurring” DSM that can no longer be claimed by utilities?	and standards
What mix of midstream product measures is most cost-effective?	Sales weighted unit energy consumption (UEC) – average usage of all models sold within each product subcategory weighted by their respective sales volume over a specified time period
What influence can a utility DSM program exert over retail market transformation, and thereby customer decision-making at point-of-purchase?	Net unit energy savings (difference between the non-qualified and qualified UEC values within each subcategory)
What are the most effective retail strategies to support the pilot?	Validation of in-store associate training, customer education, promotional and marketing efforts by retailer for qualifying measures sold
Is this upstream pilot approach operationally feasible to sustain in the long-term?	Retailer satisfaction with the pilot and the products

## **F. Stakeholder Involvement**

Through involvement in the ENERGY STAR Retail Products Platform, Xcel Energy will work closely with EPA and its affiliates, as well as other Program Sponsors—utilities—across the country. In delivering the pilot, the Company expects to hire a third-party implementer to conduct field visits and engage closely with Retail Partners. The Company anticipates selecting this entity through a competitive process.

The Company also held a webinar with Colorado stakeholders on October 29, 2015 to explain the pilot concept and to receive feedback from interested parties.<sup>1</sup>

## **G. Rebates & Incentives**

The Company will provide incentives to participating retailers in our service territory to increase sales of ENERGY STAR certified products in 2016. Initially these products will include freezers, clothes dryers, room air cleaners, room air conditioners, and sound bars. Examples of retailer strategies may be increased stocking and promotion of qualifying ENERGY STAR models or marketing campaigns focusing on core products, as well as sales associate spiffs or training. If they feel it would effectively increase sales, retailers may choose to use incentive

<sup>1</sup> In compliance with the 2015/16 DSM Plan Settlement Agreement (Proceeding No. 14A-1057EG), Paragraph 5 section (j)(iv), the Company offered to hold a second meeting with stakeholders prior to posting the Notice but it was deemed unnecessary.

funds to reduce the sales price for products, but this is not a requirement or an expectation of the pilot. This strategy will be monitored for effectiveness, as described above in Table 4.

The following table identifies the initial consumer products that will be eligible for retailer incentives through the pilot.

**Table 5: Initial Incentive Levels for Qualified Products**

<i><b>ENERGY STAR Certified Product</b></i>	<i><b>Specification</b></i>	<i><b>Initial Unit Incentive Level</b></i>
Freezers	ENERGY STAR Version 5.0	\$20
Clothes Dryers	ENERGY STAR Version 1.0	\$50
Room Air Cleaners	ENERGY STAR Version 1.2	\$20
Room Air Conditioners	ENERGY STAR Version 4.0	\$10
Sound Bars	ENERGY STAR Version 3.0+50%	\$15

To motivate retailers to transform the market towards efficient products, the specifications for qualified products are common among sponsors.

Incentive payments will be made to retailers on a per-unit-sold basis, within a predetermined budget, paid on a regular basis during the pilot cycle. Individual incentive levels for specific product categories may be adjusted throughout the pilot to reflect new cost information or market needs.

## **H. Evaluation, Measurement & Verification**

EM&V recommendations are being collaboratively developed for this pilot by ESRPP national collaborators, including EPA, the Cadmus Group, and participating utility program administrators, and will be disseminated to pilot participants in 2016.

The following activities are representative of the mixed-methods approach contemplated by the ESRPP team. Under this approach, evaluation will rely on systematically gathering and analyzing data from multiple sources using a variety of techniques relevant to the pilot implementation logic model to triangulate savings estimates. The following activities are expected to be included in the EM&V approach:

- Surveys and/or interviews of retailers, contractors, and service providers who participate and/or promote the pilot;
- Collection and analysis of in-store associate training, customer education, promotional and marketing efforts by retailer for qualifying measures sold as well as how the rebate dollars are utilized;
- Interviews with the implementation team and Xcel Energy staff;
- Interviews with manufacturers;

- Review analysis of historical and pilot-period sales data for each product category from participating retailers (including category level historical data, as well as pilot year categorical level sales data);
- For participating retailers, compare participating stores to non-participating stores with respect to sales of qualified products and market share;
- Visual data inspection to establish trend of pilot influence; and
- Comparison of forecasted higher efficiency unit sales prior to ESRPP implementation to post-implementation actual sales using segmented regression techniques.

#### Net-to-Gross Assumptions

The Company intends, as described above, to derive an appropriate, cost-effective methodology for assigning a Net-to-Gross (NTG) value for each product category before the conclusion of the pilot. For the purposes of the pilot phase, the Company intends to use the following NTG values. These values are based on results from a recent workpaper published by the Pacific Gas & Electric Company with the California Public Utilities Commission.<sup>2</sup>

**Table 6: Pilot Net-to-Gross**

<i><b>Measure</b></i>	<i><b>NTG</b></i>
Freezers	48%
Gas Clothes Dryers	83%
Electric Clothes Dryers	66%
Air Cleaners	95%
Room Air Conditioners	81%
Sound Bars	83%

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<sup>2</sup> See [http://www.caltf.org/s/CalTF-Workpaper-PGECOAPP128-Retail-Products-Platform\\_10202015.docx](http://www.caltf.org/s/CalTF-Workpaper-PGECOAPP128-Retail-Products-Platform_10202015.docx)