On April 4, 2017, Public Service Company of Colorado (“Public Service” or “the Company”) issued a 60-Day Notice to modify its existing Saver’s Switch product to rename the product “Residential Demand Response” and add a smart thermostat measure to the product. The new measure will be implemented as proposed, with the adjustments described below, on June 6, 2017. The original Notice and accompanying documentation can be found on the Company’s website, here: [http://www.xcelenergy.com/Company/Rates_and_Regulations/Filings/Colorado_Demand-Side_Management](http://www.xcelenergy.com/Company/Rates_and_Regulations/Filings/Colorado_Demand-Side_Management).

The Company received written comments on the Notice from one Roundtable participant: the Office of Consumer Counsel (“OCC”). After careful consideration of the comments, the Company determined that a correction to the proposed measure’s budget was warranted. The Company provides the following formal response:

1. **Comment Submitted by OCC**

   *The Participant Rebates and Incentives in the Program Forecast Summary Table does not appear to match the values in the Rebate Budget Breakdown. The Rebate Breakdown is consistent with the number of participants. Was there an adjustment in the Summary Table?*

   **Response:**

   There was an error in the budget tables presented in Section B of the 60-Day Notice write-up. The total for the “Participant Rebates & Incentives” should be $1,125,000 in 2017, and $2,437,500 in 2018. The Rebate Budget Breakdown section is also incorrect for Upfront Incentives; those totals should read $937,500 in 2017, and $1,875,000 in 2018, matching the Forecast Summary. Please see the updated table below which highlights the corrected fields.
<table>
<thead>
<tr>
<th>Program Forecast Summary</th>
<th>2017</th>
<th>2018</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration &amp; Program Delivery</td>
<td>$240,263</td>
<td>$408,788</td>
<td>$649,050</td>
</tr>
<tr>
<td>Advertising, Promotion, and Consumer Ed</td>
<td>$75,000</td>
<td>$75,000</td>
<td>$150,000</td>
</tr>
<tr>
<td>Participant Rebates &amp; Incentives</td>
<td>$1,125,000</td>
<td>$2,437,500</td>
<td>$3,562,500</td>
</tr>
<tr>
<td>Equipment &amp; Installation</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>M&amp;V</td>
<td>$112,250</td>
<td>$50,000</td>
<td>$162,250</td>
</tr>
<tr>
<td>TOTAL BUDGET</td>
<td>$1,552,513</td>
<td>$2,971,288</td>
<td>$4,523,800</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Participant Breakdown</th>
<th>2017</th>
<th>2018</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>ST Program</td>
<td>7,500</td>
<td>15,000</td>
<td>22,500</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rebate Budget Breakdown</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Upfront Incentives</td>
<td>$937,500</td>
<td>$1,875,000</td>
<td>$2,812,500</td>
</tr>
<tr>
<td>Annual Incentives</td>
<td>$187,500</td>
<td>$562,500</td>
<td>$750,000</td>
</tr>
<tr>
<td><strong>Energy Savings (Net Gen)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>kW</td>
<td>9,456</td>
<td>18,911</td>
<td>28,367</td>
</tr>
<tr>
<td>kWh</td>
<td>57,740</td>
<td>115,480</td>
<td>173,221</td>
</tr>
<tr>
<td>Dth</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

2. **Comment Submitted by OCC**

   The M&V budget is said to be $112,250 in 2017 and $50,000 in 2018, which totals $162,500. The total column in the 60-Day notice shows $100,000. It appears that total should be $162,500.

   **Response:**

   That’s correct, the annual totals shown are accurate but the $100,000 in the total column is not correct. The total M&V amount should read $162,500, as noted. The corrected budget table provided in the response to Comment 1 reflects this change.

3. **Comment Submitted by OCC**

   Regarding the Energy and Peak Demand Savings, PSCo’s webinar presentation dated March 28, 2017, slide 4, stated that the peak demand savings from the pilot was 1.164 kW per customer. The deemed savings technical assumptions included in the email also shows this 1.164 kW value. This does match the peak demand savings used in the budget analysis.
Regarding the Energy and Peak Demand Savings, the 2018 savings per participant are lower than the 2017 savings. Why was there a drop in savings per participant from 2017 to 2018 in the budget?

Response:

The Company has double-checked the savings per participant from the budget sheet and those appear to be consistent year-to-year. The calculations and results are as follows:

2017

kW: 9,456 kW / 7,500 participants = 1.261 kW/participant
kWh: 57,740 kWh / 7,500 participants = 7.699 kWh/participant

2018

kW: 18,911 kW / 15,000 participants = 1.261 kW/participant
kWh: 115,480 kWh / 15,000 participants = 7.699 kWh/participant

The difference between the references 1.164 kW and the 1.261 kW is the difference between the customer and generator values. The 1.164 kW value references the customer kW reduction and accounts for line losses; whereas the 1.261 kW values represents the generator kW reduction.

4. Comment Submitted by OCC

The 173,330 kWh energy savings in the 60-day notice budget is also smaller than the 1,157,446 kWh shown in the March 28, 2017 webinar. Is this an annual vs. lifetime difference? If not, please explain.

Further, the Deemed Savings Technical Assumptions shows energy savings of 7 kWh per customer. This does appear to match the values shown in the budget section. Why isn't the energy savings in the 60-Day Notice Budget 7 kWh per participant?

Response:

As stated during the March 28, 2017 webinar, all savings estimates presented at that time were preliminary and had yet to be finalized. The Company was actively refining savings estimates based on continued discussions with the thermostat pilots’ measurement and verification evaluator and ongoing analysis of pilot data. The 173,330 kWh of energy savings filed within the 60-Day Notice represent the finalized forecasted energy savings.
The matching disparity between the deemed value of 7 kWh energy savings per participant in the Technical Assumptions and the total energy savings presented in the budget section is due to line losses. The 7 kWh per customer shown in the technical assumptions is at the customer level. The aggregate 57,640 kWh is at the generator level and includes line losses.

5. **Comment Submitted by OCC**

   *Have the benefit-cost ratios changed from what was presented in the March 28, 2017 webinar? If so, please provide the four updated benefit-cost ratios.*

   **Response:**

   Due to the corrections noted in comment #1 the revised cost-benefit ratios (MTRC) for 2017 and 2018 are 2.86 and 3.12, respectively.

6. **Comment Submitted by OCC**

   *The Deemed Savings Technical Assumptions shows a 100% net-to-gross value. What is the basis for this value?*  

   *The March 28, 2017 webinar (slide 4) shows about 85% participation in the pilot. Is 85% a more accurate estimate of the net-to-gross value?*

   **Response:**

   The Smart Thermostat measure is a demand response measure which does not incur free ridership as customers would not voluntarily reduce load during peak events without the influence and direction of the Company.

   The 85% participation rate is an acknowledgement that not all thermostats responded during events. This adjustment is taken into account in the average demand savings per device.
7. **Comment Submitted by OCC**
   
   *The pilot included 10 events in 2016 (slide 4, assuming that Summer, 2017 was really Summer, 2016). How many events does PSCo plan to have in the future and why?*

   **Response:**
   
   The Company anticipates activating the Smart Thermostat program at a similar frequency as the Saver’s Switch program. Historically, Saver’s Switch has averaged seven control events per year. However, the Company has not set a limit to the number of events that can be called. The program will be utilized during system emergencies, contingency or economic conditions on Public Service’s system, as identified by the Company.

8. **Comment Submitted by OCC**
   
   *Do the Saver’s Switch and Smart Thermostat descriptions or tariffs identify the criteria for calling an event and cycling the customers’ air conditioners? If not, how are customers (and interested parties) to understand when events would be called?*

   **Response:**
   
   The criteria for calling an event include system emergencies, contingencies, and economic conditions. However, there are not any circumstances readily available to customers to predict upcoming events (i.e. it can’t be assumed that any time the temperature exceeds a certain value the program will be activated). Customers will be notified, based on their preference, via email or text message of control events.