ROCKY MOUNTAIN POWER
A DIVISION OF PACIFICORP

201 South Main, Suite 2300
Salt Lake City, Utah 84111

April 13, 2012

VIA ELECTRONIC FILING
AND OVERNIGHT DELIVERY

Public Service Commission of Utah
Heber M. Wells Building, 4th Floor
160 East 300 South
Salt Lake City, UT 84114

Attn: Gary Widerburg
Commission Secretary

RE: Advice No. 12-04
Docket No. 08-999-05 - Home Energy Report Pilot

Pursuant to Utah Public Service Commission ("Commission") June 6, 2011 order in Docket No. 08-999-05, PSCU Rocky Mountain Power ("Company") hereby submits for filing a request to implement a Home Energy Report ("HER") pilot and to recover associated costs with the pilot through Schedule 193, Demand Side Management ("DSM") Cost Adjustment. The Company will also provide an electronic version of this filing to psc@utah.gov. The Company respectfully requests an effective date of May 15, 2012 for these changes.

On December 17, 2009, the Commission filed "Determination Concerning the PURPA Smart Grid Investment and Smart Grid Information Standards," in the docket referenced above. In that filing the DSM Advisory Group was directed to review the Home Energy Report and provide a recommendation as to whether such a report would be appropriate and, if so, the estimated cost and timing necessary to implement such a report. In response to this directive, the Company filed "Review of Home Energy Reports" on February 28, 2011.

On March 30, 2011, the Commission invited interested parties to submit detailed written comments responding to the Company's filed report. While the parties submitting comments did not oppose such a HER program, they raised a number of recommendations and issues. Consequently, on June 6, 2011 the Commission ordered the Company to work with the DSM advisory group to determine report features and participation levels prior to filing the program for Commission approval. Further the Company was directed to identify in its filing of a program "areas of agreement, or any remaining areas of disagreement, among DSM Advisory Group members regarding program composition."

As stated in the Company's February 28, 2011 report, home energy reports are designed to better inform residential customers about their energy usage by providing comparative energy usage data for similar homes located in the same geographical area. In addition, the reports provide customers information on how to modify their energy usage. Equipped with this information,

customers can modify behavior and/or make structural, equipment, lighting or appliance changes to reduce their overall electric energy consumption. Key elements of pilot design include the following:

- Duration of the pilot
- A mandated or opt-out approach
- Number of participating customers
- Participating customer characteristics
- Frequency of energy reports
- Delivery mechanism Evaluation, measurement and verification protocol

Proposed Pilot Design

The Company met with the DSM Advisory Group Subcommittee[1] ("Subcommittee") addressing new programs on February 8, March 14, and March 29, 2012 in an effort to reach agreement on these elements and to discuss recommendations and issues raised by the parties.

Duration of the pilot

The Company proposes a 41-month pilot to ensure sufficient time to evaluate the pilot performance. The original discussions on pilot duration with Subcommittee members were based on 36-month pilot. Based on further analysis it was determined that a 41-month period would be more optimal for measuring and evaluating performance for the following reasons:

- The forecasted per household savings are expected to increase and only level out toward the end of 36-months;
- Based on behavior modification evaluation standards and prior program evaluation data, the evaluator recommended two measurement and validation periods (at the end of months 18 and 36 of the pilot) with approximately 5-months to analyze the pilot and report findings. This would allow time for the Company with advice from the DSM Advisory Group, to act on the results from the evaluation (i.e. request approval to extend the pilot, expand the pilot or terminate).

With the exception of Southwest Energy Efficiency Project ("SWEEP"), the Subcommittee members did not object to the Company's proposed duration.

SWEEP expressed concern that the pilot duration was unnecessarily long. The DSM advisory group was able to mitigate this concern however, by agreeing that if, based on the initial pilot evaluation (evaluated at 18-months), the additional term of the pilot was not warranted the group would recommend moving to an expanded program or agree on the viability and extension of the program at that time rather than continuing with the pilot as proposed.

[1] Division of Public Utilities, Office of Consumer Services, Utah Association of Energy Users, Western Resource Advocates, Utah Clean Energy, Southwest Energy Efficiency Program and Utah Community Action Partnership

A mandated or opt-out approach

To ensure the pilot does not adversely impact customer satisfaction, the Company proposes an "opt-out" approach, where customers are selected to participate however can request to be removed from the participant category at any time during the pilot. It is expected, based on the experience in other HER programs of similar nature and design, the pilot will have an opt-out rate of less than 2 percent; however, the pilot will also be impacted by the natural move-out rate of the customer population. As a result, the annual opt-out/move-out rate for the planning purposes has been estimated to be 7 percent.

The members of the Subcommittee did not object to this proposed approach to opt-out.

Number of participating customers

Based on the characteristics outlined above, the associated estimated savings, the overall cost to provide the reports and the avoided cost value of the expected energy savings, the Company proposes reports be provided to approximately 95,000 customers initially. It is expected that this initial population will degrade (due opt-out/move-out rate) over the pilot's initial term to about 77,000.

It is important to note the Company's recommendation is designed to deliver a cost effective pilot and is based on the customer characteristics outlined below. If the customer characteristics materially change, consideration should be given to adjusting the number of customers targeted to receive home energy reports to maintain reasonable program economics.

The members of the Subcommittee did not object to the Company's proposal regarding the number of participating customers.

Participating customer characteristics

To increase the probability the pilot will be cost effective, the Company proposes using a customer population with annual average electrical energy usage of 16,215 kilowatt hours. The upper bound annual average will be approximately 26,400 kilowatt hours and the lower bound annual average 12,300 kilowatt hours. As degradation occurs over the pilot period, the customer usage average may also change. The change in average usage will be measured and verified in the pilot evaluation.

Three members of the Subcommittee expressed concern with the Company's proposal.

SWEEP did not disagree with weighting the majority of the population with above average energy use households, but preferred that there also be a sub-set within the control group that in their opinion are more likely to respond and may be more representative of the average Utah residential customer, specifically a program design that includes:

> *"… less affluent households without central air conditioning,"* SWEEP stated it is, *"…possible that these households would respond (to the pilot) just as much or possibly even more than highly affluent households with electricity use of 16,000 kWh/yr or greater. My (representative for SWEEP) hypothesis being, that less affluent people might be more interested in reducing their utility bill than wealthier households."*

Provided in Attachment A are additional comments prepared by SWEEP related to this issue.

UCE provided similar comments:

> *"…there may also be factors unique to high energy usage households that prevent them from realizing certain energy savings… [that]…may not exist for the company's average customers. Without including average customers in the pilot program we could miss out on important information about how the Company's average customers may respond differently than high usage customers…Utah Clean Energy doesn't object to focusing the pilot program on high energy use households, but recommend that the Company modify the pilot to include average customers (~9,000 kWh/year) within the sample population in a way that preserves the cost effectiveness of the pilot."*

The Office provided similar comments:

> *"The company is focused on a sample size that is way too high for the population of energy users. The company has to include a sample of users in the 9,500 – 11,000 annual KWH usage range. This allows parties to understand how effective the HER will be under the more realistic conditions."*

The Company designed the proposed HER pilot based on specific parameters thought to produce the best results, both in energy savings and program economics. Studies and evaluations of similar pilots[2] conclude that higher usage households generate more savings (both on a percentage of savings and total kilowatt hour savings basis) than lower usage households. In a study published by the Massachusetts Institute of Technology in 2011, the author states:

---

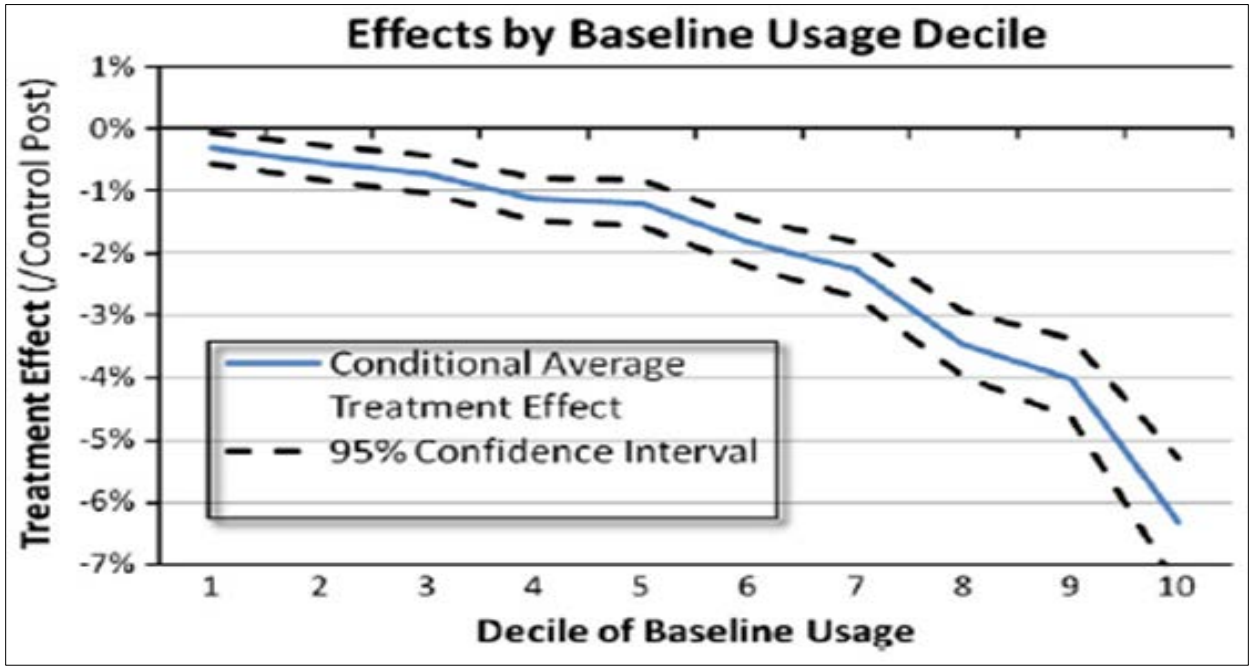
[2] See, for instance:
Alcott, Hunt. "Social Norms and Energy Conservation", Working paper, Massachusetts Institute of Technology (MIT), Cambridge, MA, 2009.

Ayres, I., S. Raseman and A. Shih. "Evidence from Two Large Field Experiments that Peer Comparison Feedback Can Reduce Residential Energy Usage", NBER working paper no. 15386, September 2009.

Costa, D.L. and M.E. Kahn. "Energy Conservation "Nudges" and Environmentalist Ideology: Evidence from a Randomized Residential Electricity Field Experiment", NBER working paper no. 15939, April 2010.

Cooney, Kevin. "Evaluation Report: OPOWER SMUD Pilot Year 2" Navigant Consulting, Chicago, IL. 2011.

"In general, the more electricity a household used before the treatment, the more that it conserved post-treatment. This could be because the most consumptive households had low-cost energy conservation opportunities, and the tips contained in the reports made them aware of this. This result is also consistent with the "boomerang effect" model, under which previously low-consumption households might not conserve – or might even consume more – after receiving information that they are less consumptive than their peers."



Source: Allcott, H., Social Norms and Energy Conservation, Treatment effects by decile of baseline usage.

Segmenting the pilot household population into specific groups based on usage or other demographics would require sub-populations of 10,750 customers per segment[3] to measure 2% savings with a 95% confidence level. Given the number of participants required to provide statistically validated savings and the anticipated savings associated with these customers, the Company feels it prudent to launch the pilot as proposed.

The Subcommittee discussed these issues during a meeting on March 29, 2012. As a resolution, parties, with the exception of SWEEP, agreed to defer inclusion of customers with energy usage between 9,000 – 12,300 kilowatt hours annually. A second phase focusing on customers with annual usage in this range would be developed based on the information obtained during the first 12 months of the program. If the information supported the addition of a second phase, a request to expand the number of participants would be submitted to the commission.

[3]Brattle Group, Ahmad Faruqui, Ph.D., Sanem Sergici, Ph.D. May 2011, *Measurement and Verification Principles for Behavior-based Efficiency Programs, Table 1 (pg 5)*

In response to SWEEP's position, the Company completed a preliminary analysis of the cost effectiveness of this additional segment. The analysis assumed average participation of 10,745 customers over a 30 month pilot beginning in year 2 of the company's current proposal. The assumed savings used were based on currently available industry information on savings potential for customers with annual energy usage 9,500 kilowatt hours – 12,300 kilowatt hours. Under conservative cost assumptions similar to the 41-month pilot, the added benefits didn't cover the added costs of $340,000 producing Utility Cost Test ("UTC") results of 0.90 – 0.96 depending on the carbon assumption applied. If the Company were to amend the program administrator agreement at this time and include this sub-set of lower usage customers in the initial launch of the pilot or incorporate the lower usage sub-set a year from now, the economics suggest that the impact would degrade the pilot's overall savings potential and cost-effectiveness. For this reason the Company does not recommend making a change to the pilot's design as proposed.

Frequency of energy reports and delivery mechanisms

As proposed by the Company, reports will be mailed monthly for the initial three months to build up pilot awareness and then moving to a bi-monthly schedule through the remainder of the pilot. Each participating customer will receive 21 reports over the term of the pilot. Customers may also opt-out of the mailed paper copy of the report and request an electronic version delivered via email. Participating customers will also have access to a web portal containing the same information about their usage and past usage. The web portal will have others function such as a home energy audit tool and suggestions to improve energy conservation and efficiency of their home. In addition, participants may also receive email reminders in the interim report months to review. In an effort to give the participating customer more choice on how their HER is delivered, the customer will have the ability to opt-out of direct mailings and instead receive their reports via email.

The Subcommittee members did not object to the Company's proposal regarding the frequency of energy reports and the delivery mechanism.

Evaluation, measurement and verification

The Company proposes a two-tier evaluation, measurement and verification ("EM&V") plan of the pilot savings. First, the program administer delivering the HER program ("program administrator") will estimate the savings on a quarterly basis using a random control implementation and shall employ a time-aggregated, difference-in-differences analysis model to obtain estimates of energy savings that are statistically significant with International Performance Measurement & Verification Protocol ("IPMVP"). The program administrator will provide the following information on a quarterly basis:

- Participation Activities
    - Number of customers participating
    - Number and rate of customers electing to opt-out and/or move-out

  - Summary of pilot information provided to the company by delivery channel
- Energy Savings
  - Gross energy savings
  - Energy savings net of Rocky Mountain Power residential energy efficiency savings

On a semi-annual basis the program administrator will be asked to summarize the information in the quarterly reports and provide the following additional information:

- Website usage statistics, including:
  - Number of visitors, page views, and accounts created,
  - Average time on site,
  - Number of tip actions and commitments made.

Quarterly and semi-annual reports will be made available to the DSM Advisory Group through the duration of the pilot.

In addition, the Company proposes contracting with a third-party independent evaluator to conduct pilot impact evaluations after the 18th month and 36th month of the pilot. The evaluations will assess pre and post test and control groups for statistical validity, measure energy savings through a billing regression analysis per the IPMVP, and measure attribution of savings from other Company utility DSM programs in order to avoid double recording of utility program reported savings. The evaluator will use California Public Utility Commission's Standard Practice Manual tests and Utah specific cost test conventions for evaluating the pilot cost effectiveness.

The Subcommittee members did not object to the Company's proposal regarding the pilot EM&V plan. The Company will seek advice from the Advisory prior to initiating the second tier of the EM&V plan, the independent third party evaluation,

Implementation

If approved, the implementation period for the pilot is estimated to be 16 weeks. During this period the Company and its program administrator vendor will:

- Finalize the pilot scope,
- Deploy the technical infrastructure for the pilot,
- Identify participating customers,
- Finalize the analysis of historic data,
- Configure marketing content,
- Set up the initial website, and
- Perform quality assurance.

The Company will continue to provide progress reports to the DSM Advisory Group through the implementation period.

If approved by the Commission, the Company anticipates a pilot launch date of August, 2012.

Pilot Cost Effectiveness:

The HER pilot as proposed by the Company, is cost-effective based on the UTC under three separate scenarios. Scenarios 1 and 2 are the expected results using the "Medium" carbon cost decrement values and "No" carbon cost decrement values, respectively[4]. Scenario 3 represents the program administrator's guaranteed pilot performance and was evaluated using the "Medium" carbon cost decrement values. Over the pilot period the UTC is projected to be 2.06 in Scenario 1, 2.04 in Scenario 2 and 1.32 in Scenario 3. Table 1 below summarizes the total 2012-2015 cost/benefit results by scenario.

Table 1
2012-2015 Cost/Benefit Test Results

Benefit/Cost Test Performed	Scenario 1 Expected - 2012-2015			Scenario 2 Expected No CO_2 - 2012-2015			Scenario 3 Guaranteed - 2012-2015		
	Costs	Benefits	B/C Ratio	Costs	Benefits	B/C Ratio	Costs	Benefits	B/C Ratio
	(in '000)			(in '000)			(in '000)		
Total Resource Cost Test (TRC)	$3,212	$6,629	2.06	$3,212	$6,548	2.04	$3,212	$4,245	1.32
Total Resource Cost Test (PTRC)	$3,212	$7,291	2.27	$3,212	$7,203	2.24	$3,212	$4,669	1.45
Societal Cost Test (SCT)	$3,212	$6,629	2.06	$3,212	$6,548	2.04	$3,212	$4,245	1.32
Utility Cost Test (UCT)	$3,212	$6,629	2.06	$3,212	$6,548	2.04	$3,212	$4,245	1.32
Rate Impact Test (RIM)	$10,246	$6,629	0.65	$10,246	$6,548	0.64	$7,717	$4,245	0.55
Levelized Cost ($/kWh)	$3,212	$72,382	$0.044	$3,212	$72,382	$0.044	$3,212	$46,358	$0.069

Year 1 of the pilot includes the anticipated implementation period.

[4] Decrement values represent the avoided cost values of energy efficiency resources to the Company used in evaluating the benefits of demand side resources. They were developed consistent with the resources assumptions used in the Company 2011 Integrated Resource Plan. See "Table 10 – Annual Nominal Class 2 DSM Avoided Costs, Medium CO2 Tax Scenario, 2011-2030" on page 20 of the Company's 2011 Integrated Resource Plan Addendum, June 27, 2011.

The expenses associated with the pilot were included in the Company's forecast of energy efficiency and peak reduction costs filed and approved by the Commission in Docket No. 11-035-14T. Therefore an adjustment to Schedule 193-Demand Side Management Surcharge is not required at this time.

It is respectfully requested that all formal correspondence and staff requests regarding this matter be addressed to:

By E-mail (preferred): datarequest@pacificorp.com
beau.brown@pacificorp.com

By regular mail: Data Request Response Center
PacifiCorp
825 NE Multnomah Blvd., Suite 2000
Portland, OR 97232

Beau Brown
Regulatory Manager DSM
Rocky Mountain Power
825 NE Multnomah Blvd., Suite 600
Portland, OR 97232

Informal inquiries regarding this matter may be directed to Beau Brown, Regulatory Manager DSM, at (503) 813-6489.

Sincerely,

Carol L. Hunter
Vice President, Services

Enclosures

cc: Division of Public Utilities
Office of Consumer Services