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October 17, 2011

***VIA ELECTRONIC FILING  
AND HAND DELIVERY***

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

Attn: Julie P. Orchard  
Commission Secretary

RE: Advice No. 11-10

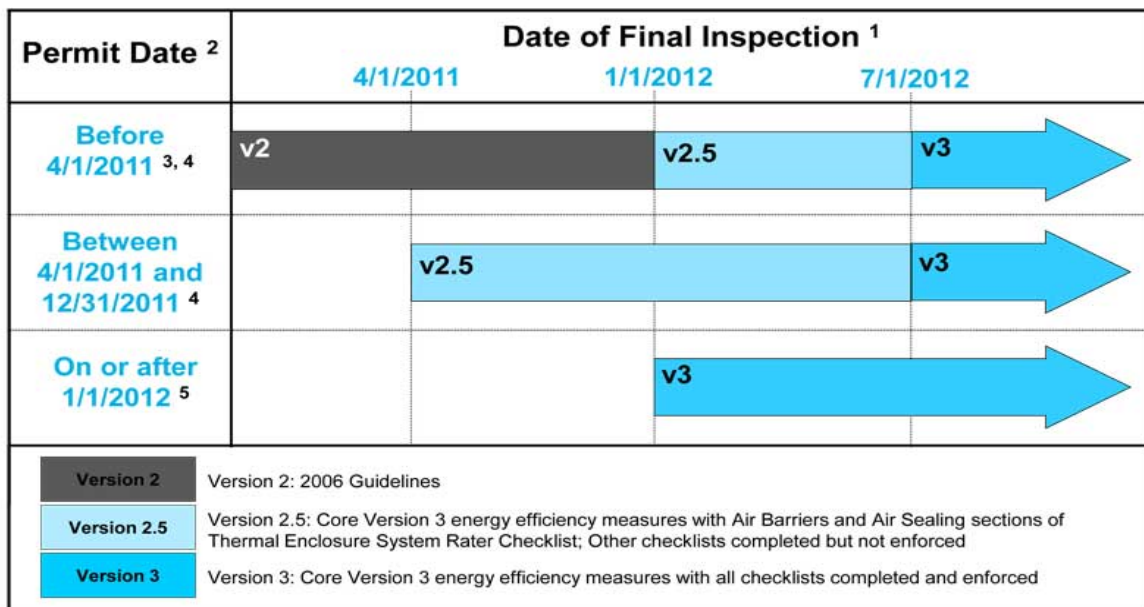
Enclosed for filing are an original and ten copies of proposed tariff sheets associated with Tariff P.S.C.U No. 48 of PacifiCorp, d.b.a Rocky Mountain Power, applicable to electric service in the State of Utah. Pursuant to the requirement of Rule R746-405D, Rocky Mountain Power (Company) states that the proposed tariff sheets do not constitute a violation of state law or Commission rule. The Company will also provide an electronic version of this filing to [psc@utah.gov](mailto:psc@utah.gov). The Company respectfully requests an effective date of November 16, 2011 for these changes.

First Revision of Sheet No. 110.01	Schedule 110	ENERGY STAR New Homes Program
First Revision of Sheet No. 110.02	Schedule 110	ENERGY STAR New Homes Program
First Revision of Sheet No. 110.03	Schedule 110	ENERGY STAR New Homes Program
First Revision of Sheet No. 110.04	Schedule 110	ENERGY STAR New Homes Program
Original of Sheet No. 110.05	Schedule 110	ENERGY STAR New Homes Program
Original of Sheet No. 110.06	Schedule 110	ENERGY STAR New Homes Program
First Revision of Sheet No. B.1		Electric Service Schedules State of Utah

The purpose of this filing is to advance the ENERGY STAR New Homes program (Program), which is administered through Schedule 110, with new ENERGY STAR guidelines. The Program is currently designed to align with ENERGY STAR Version 2.0 for new homes and ENERGY STAR is in the process of transitioning from Version 2.0 to Version 2.5. The Program reduces customer energy use by incenting home builders to incorporate energy efficiency measures in new home construction that meets United States Environmental Protection Agency (EPA) ENERGY STAR standards in new single-family and multi-family homes.

In 2011, the EPA modified the ENERGY STAR guidelines for new homes.<sup>1</sup> The Company, through this filing, is providing a plan to phase in the modified guidelines consistent with EPA timelines and requirements. Guidelines prior to the 2011 modifications (Version 2.0) cover multi-family and single-family homes with a permit date antecedent April 1, 2011. One exception is low-income multi-family housing, which will be allowed to follow Version 2 through the end of 2012 before being required to meet Version 3 guidelines. The National ENERGY STAR New Homes Program recently revised adoption guidelines and timelines (see Figure 1). Homes permitted prior to April 1, 2011 and inspected by December 31, 2011 may be certified Version 2. Homes permitted after April 1, 2011 and inspected prior to June 30, 2012 must meet the next version of the guidelines (Version 2.5) and homes permitted on or after January 1, 2012 must meet Version 3.0 guidelines.

**Figure 1 ENERGY STAR Timeline for Versions 2.5 and 3.0<sup>2</sup>**



Source: [http://www.energystar.gov/index.cfm?c=bldrs\\_lenders\\_raters.nh\\_version\\_guidelines\\_which](http://www.energystar.gov/index.cfm?c=bldrs_lenders_raters.nh_version_guidelines_which)

<sup>1</sup> [http://www.energystar.gov/index.cfm?c=bldrs\\_lenders\\_raters.homes\\_guidelns](http://www.energystar.gov/index.cfm?c=bldrs_lenders_raters.homes_guidelns)

<sup>2</sup> Earlier in 2011, the Company had communicated to the Commission a different timeline for transition to ENERGY STAR Version 2.5. The ENERGY STAR transition timeline subsequently shifted; Figure 1 represents the current transition timeline provided by ENERGY STAR.

### **Primary Changes in ENERGY STAR New Homes**

As codes and standard practices have continued to increase across the country, the EPA released a third generation of guidelines (Version 3) that will phase in 2011 and 2012. Version 2.5 is a transitional guideline that is identical to Version 3, but does not require specific supporting documentation (checklists), which proves compliance occurred. While Version 2.5 and 3 maintain the overall concept of the ENERGY STAR performance and prescriptive paths, Version 2.5 and 3 changes include the following:

1. Base energy code for homes must comply with 2009 International Energy Conservation Code (IECC);
2. Size adjustment factor to determine the Home Energy Rating System (HERS) Index target for each home;
3. Modification of efficiency measures such as gas furnace and air conditioning efficiency modification dependant on climate zone and reduction in air infiltration levels;
4. Eliminating mandatory lighting and appliance standards allowing for design flexibility;
5. Addition of a Thermal Enclosure System Rater Checklist that ensures building envelope integrity;
6. New Advance framing techniques;
7. HVAC System Quality Installation Rater and Contractor Checklists that ensure proper design and installation of HVAC system;
8. Water Management System Rater and Builder Checklist.

### **Rocky Mountain Power New Homes Program Proposed Tariff Changes**

In order to align Program requirements with the modified national ENERGY STAR guidelines for the balance of 2011 and improve Program administration and cost effectiveness, the following changes are proposed:

- Align Program eligibility requirements with ENERGY STAR Versions 2.0, 2.5 and 3 by providing incentives for single-family and multi-family homes that meet these requirements. The cost effectiveness of these changes is provided in Tables 1, 2, and 3 below; revised incentive levels for Program measures are included in the revised tariff sheets. Eligibility requirements will allow for early adoption of Version 3 homes prior to the national roll-out of ENERGY STAR Version 3.
- Administrative changes to the eligibility requirements for the homes meeting Version 2.0 guidelines, which in accordance with national ENERGY STAR guidelines will be

eligible for incentives if they are inspected prior to the end of 2011. These changes will clarify the application of these outgoing guidelines and improve cost-effectiveness and administration of the Program. These changes include:

- establish that the Plus Measure 90% ENERGY STAR CFL may not be combined with the ENERGY STAR fixture incentive;
  - remove the limiting reference to “well-based” ground source heat pumps. The Program’s intent is to afford flexibility to builders to install any ground source heat pump configurations that achieve similar energy savings.
- Replacing specific detailed descriptions of Program measures and requirements in the tariff sheets with references pointing to the ENERGY STAR Program guidelines. This change will reduce the number of future tariff filings by allowing the Program to adapt to future changes made by the national ENERGY STAR Program. For example, Version 2.0 or 2.5 and/or tariff tables 1, 2, 3, and 4 have been removed from the body of the tariff descriptions. Additional clarification and requirements on the Company specific requirements affecting customer eligibility will be footnoted in the tariff, included in the builder/rater participation agreement, and/or provided on the Program website at <http://www.rockymountainpower.net/res/sem/epi/utah/esnh/pnu.html>.

The Company has provided an implementation plan (see Figure 2: Implementation Plan below), that provides builders with time to adjust to new Program incentives, while retaining the incentive structure for homes that were built with the existing incentive structure in mind. The Company’s implementation plan retains the current incentive structure for Version 2.0 homes through 2011. Homes constructed to Version 2.5 and 3, which are permitted prior to the effective date of the tariff sheets proposed in this application (should the Commission grant approval) will continue to receive the current incentive structure (Incentive Structure 1). Homes constructed to Version 2.5 and 3, which are permitted after the effective date of the modified Program will be eligible for the new incentive offer (Incentive Structure 2). Without adopting ENERGY STAR Version 2.5, the Company will no longer be eligible to certify homes under the national ENERGY STAR label.

The Company discussed the ENERGY STAR Version 2.5 adoption requirements and its impacts to the Company’s Program with its Demand-Side Management Advisory Group on June 23, 2011. Additionally, the Company met with builders and raters (third-party firms hired by builders to assess compliance with ENERGY STAR guidelines) to discuss the Program’s design and potential changes in June and July. In addition, several one-on-one meetings with builders and raters have occurred to discuss potential changes and impacts to the ENERGY STAR market. A draft of this filing was sent to the DSM advisory group for comment which was discussed at a meeting of the advisory group held on October 11, 2011.

The Company undertook an effort designed to review and update the analytical foundation for the Program going forward, recognizing that better housing stock and building practice

information is available after six years of Program operation (2005 – 2010) and recent impact evaluations. Analytical assumptions supporting the reported energy savings were revised using REM/Rate (Version 12.85) simulation software, which aligns with the analysis tools used by the national ENERGY STAR Program. Prototype homes (single family and multi-family) for the three Utah climate zones were developed and information from the recent impact evaluations about housing size and features were included. Measure cost and life assumptions were also updated.

### **Program Cost Effectiveness**

The cost effectiveness of the 2010 Program as detailed in the 2010 DSM Annual Report<sup>3</sup> was sub-optimal at 0.91 from a Utility Cost Test basis. As a result, improving forecasted Program performance through design and delivery changes was a priority.

In 2010, several factors contributed to the sub-optimal cost effectiveness of the Program. They included:

- a continued decline in homes qualifying for ENERGY STAR, correlating with the state's decline in new home starts;
- significant increases in lighting savings, some of which were generated from screw-in CFLs, leading to the decision to assign a comparatively short (six year) measure life to CFLs, which in turn reduced the overall weighted Program life to approximately ten years;
- utilization of a 95% savings realization rate and updated net-to-gross ratio of 0.74 from the impact evaluation completed in 2010 for all measures.

Revising the Version 2.5 incentive structure for lighting measures by removing the ENERGY STAR light fixture plus measure will decrease the lighting ratio mix in the overall Program measure life and as a result will increase the overall measure life of the Program. The Tier 1 80% CFL requirement and the 90% CFL plus measure option will continue at the same value until the end of 2011.

### **Sensitivity Analysis on Cost Effectiveness**

Tables 1, 2, and 3 below provide results from the Benefit/Cost analysis for Version 2.5 measures. Table 1 measures the whole Program, table 2 measures single family, and table 3 measures multi-family. Eight Program design scenarios are provided in total. The models used to generate these results are provided as electronic attachments to this filing. Design scenarios include:

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<sup>3</sup> The 2010 DSM Annual Report was submitted to the Commission on April 7, 2011, in Docket No. 11-035-74.

- (1a and 1b) ENERGY STAR Version 2.5 with no Plus Measures (minus the light fixture measure previously discussed), presumed participation numbers, and medium and low decrement values from the 2011 IRP, refer to Attachment A;
- (2a and 2b) ENERGY STAR Version 2.5 with Plus Measures included (Inc), presumed participation, and medium and low decrement values from the 2011 IRP, refer to Attachment B;
- (3a and 3b) ENERGY STAR Version 2.5 with Plus Measures included (Inc), presumed participation plus 10% (High) and minus 10% (low), and medium decrement values from the 2011 IRP, refer to Attachments C and D, respectively;
- (4a and 4b) ENERGY STAR Version 2.5 with Plus Measures included (Inc), presumed participation plus 10% (High) and minus 10% (low), and low decrement values from the 2011 IRP, refer to Attachments E and F, respectively.

The 1a, 1b, 2a, and 2b scenarios provide a sensitivity analysis on impacts of legacy Plus Measures to the one required measure (Tier 1, ENERGY STAR certified home with 80% CFL requirement). All scenarios provide a sensitivity to decrement values in the 2011 IRP. Four scenarios provide a high and low sensitivity to the Company's estimate of Program participation. The cost effectiveness and sensitivity study specifically provides results based on estimated ENERGY STAR Version 2.5 Program costs and kWh savings for the remainder of the 2011 year (the analysis period assumed delivery between August 15 to December 31, 2011).

Results utilizing the 2011 IRP medium decrement value are used for this analysis. Program administrative and incentive budgets and kWh savings are projections based on new homes market analysis and recent historic Program participation trends. Modeling inputs utilize individual measure savings and administration costs. The savings are for climate zone 5 and utilize the IECC 2006 as a baseline. Multiple benefit/cost tests are reported including; Total Resource Cost Test (PTRC), Total Resource Cost Test (TRC), Utility Cost Test (UCT), Rate Impact Test (RIM), and Participant Cost Test (PCT).

**Table 1 - 2011 Overall Program Cost Effectiveness Summary of Single and Multi-Family Programs - Version 2.5**

Scenario	1a	1b	2a	2b	3a	3b	4a	4b
2011 IRP Cost	Med	Low	Med	Low	Med	Med	Low	Low
Participation	Med	Med	Med	Med	Low	High	Low	High
Plus Measures	None	None	Inc	Inc	Inc	Inc	Inc	Inc
Housing	Total	Total	Total	Total	Total	Total	Total	Total
PTRC	1.00	0.85	0.91	0.78	0.86	0.96	0.74	0.82
TRC	0.91	0.78	0.83	0.71	0.78	0.87	0.67	0.75
UCT	1.05	0.90	1.02	0.87	0.95	1.08	0.81	0.93

Scenario	1a	1b	2a	2b	3a	3b	4a	4b
Participant Test	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RIM Test	0.48	0.41	0.47	0.40	0.46	0.48	0.39	0.42
Levelized Cost	\$ 0.084	\$ 0.084	\$ 0.092	\$ 0.092	\$ 0.097	\$ 0.087	\$ 0.097	\$ 0.087

**Table 2 - 2011 Program Cost Effectiveness Sensitivity Summary of Single-Family Measures - Version 2.5**

Scenario	1a	1b	2a	2b	3a	3b	4a	4b
2011 IRP Cost	Med	Low	Med	Low	Med	Med	Low	Low
Participation	Med	Med	Med	Med	Low	High	Low	High
Plus Measures	None	None	Inc	Inc	Inc	Inc	Inc	Inc
Housing	SF	SF	SF	SF	SF	SF	SF	SF
PTRC	1.04	0.89	0.92	0.79	0.87	0.97	0.75	0.83
TRC	0.95	0.81	0.84	0.72	0.79	0.88	0.68	0.76
UCT	1.09	0.93	1.04	0.89	0.97	1.11	0.83	0.95
Participant Test	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RIM Test	0.49	0.42	0.48	0.41	0.46	0.49	0.40	0.42
Levelized Cost	\$ 0.080	\$ 0.080	\$ 0.091	\$ 0.091	\$ 0.096	\$ 0.086	\$ 0.096	\$ 0.086

**Table 3 -2011 Program Cost Effectiveness Sensitivity Summary of Multi-Family Measures - Version 2.5**

Scenario	1a	1b	2a	2b	3a	3b	4a	4b
2011 IRP Cost	Med	Low	Med	Low	Med	Med	Low	Low
Participation	Med	Med	Med	Med	Low	High	Low	High
Plus Measures	None	None	Inc	Inc	Inc	Inc	Inc	Inc
Housing	MF	MF	MF	MF	MF	MF	MF	MF
PTRC	0.90	0.77	0.89	0.76	0.84	0.93	0.72	0.80
TRC	0.82	0.70	0.81	0.69	0.77	0.84	0.66	0.72
UCT	0.97	0.83	0.95	0.81	0.89	1.00	0.76	0.86
Participant Test	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RIM Test	0.46	0.39	0.46	0.39	0.44	0.47	0.38	0.40
Levelized Cost	\$ 0.093	\$ 0.093	\$ 0.094	\$ 0.094	\$ 0.099	\$ 0.090	\$ 0.099	\$ 0.090

Scenario 2a is considered the proposed baseline assumption for this filing (includes plus measures and medium 2011 IRP decrement values); the other scenarios provided are variations of the baseline for sensitivity analysis.

## Implementation Plan

The Company's intentions for the Program changes proposed in this filing are to act as a bridge between ENERGY STAR Versions 2.0 to Version 3 for the remainder of 2011. Without adopting Energy Star Version 2.5, the Company will no longer be eligible to certify homes under the national ENERGY STAR label. While the Company acknowledges that a 1.02 UTC result (scenario 2a, full program) is marginally cost effective for Version 2.5, the true value of this Program is incenting energy efficiency in new home construction; a lost opportunity if Program incentives were not available. Further, the Company intends to propose Program modifications in the filing to transition the Program to Version 3 and introduce other non-ENERGY STAR new homes measures which will further improve the cost effectiveness of the Program.

The Company is requesting that the Program modifications proposed herein become effective November 16, 2011, which is 30 days from the date of this filing. As shown in Figure 1 above, the incentive for qualifying homes will be based upon the home meeting the requisite version of ENERGY STAR and the date upon which the associated home's permit was issued. Figure 2 below illustrates the proposed transition timeline between Versions 2.0 and 2.5.

**Figure 2: Implementation Schedule**

ENERGY STAR Version <sup>1</sup>	V 2.0						V 2.5 <sup>2</sup>						
Anticipated Filing Period													Commission Review
Effective Date Notice												Assumed effective date of tariff	
Version 2.0 Incentive <sup>3</sup>	Incentive Structure Number 1 (i.e. pre-existing incentive amounts)												
Version 2.5 or 3 Incentive <sup>4</sup>	Incentive Structure Number 1 (i.e. pre-existing incentive amounts)						New Incentive Structure						
	Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	
	Date												

<sup>1</sup> The applicable ENERGY STAR guideline version is based upon the date of the home's permit or contract.

<sup>2</sup> Homes may qualify for ENERGY STAR Version 3 on a pilot basis in 2011 if approved by the US EPA.

<sup>3</sup> Homes that receive an ENERGY STAR certification for Version 2.0 will receive an incentive under the existing incentive structure. Program will align with ENERGY STAR's rules for the qualifying version.

<sup>4</sup> The eligible incentive amount for Version 2.5 and 3 homes is based upon the date that the associated home's permit was issued.

Further communications about these changes and the proposed effective date will be provided to builders and raters via email, the Company's website, and through direct outreach to key Program partners via the Program administrator's outreach staff.

## Future Planning

Additional changes incorporating Version 3 guidelines for 2012 and any improved design or delivery features will be provided to the DSM Advisory group for review in later in 2011.

The electronic models provided as Attachments A, B, C, D, E and F contain proprietary information that would be detrimental to Navigant Consulting, Inc., the contractor who prepared the cost effectiveness results, if disclosed to a competitor. Accordingly, Rocky Mountain Power is filing Attachments A, B, C, D, E and F under seal, and requesting that the Commission require any party who wishes to view these attachments execute a Confidential Information Certificate. For the Commission's convenience the Company has provided as Attachment G a draft Confidential Information Certificate with this filing.



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

By E-mail (preferred):        [datarequest@pacificorp.com](mailto:datarequest@pacificorp.com)  
   [aaron.lively@pacificorp.com](mailto:aaron.lively@pacificorp.com)

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

Aaron Lively  
Regulatory Manager  
Rocky Mountain Power  
201 South Main Street, Suite 2300  
Salt Lake City, UT 84111

Informal inquiries regarding this matter may be directed to Aaron Lively, regulatory manager, at (801) 220-4501.

Sincerely,

Carol L. Hunter  
Vice President, Services

Enclosures

cc:     Division of Public Utilities  
         Office of Consumer Services