



May 15, 2015

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***VIA ELECTRONIC FILING  
AND OVERNIGHT 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: Gary Widerburg  
Commission Secretary

RE: Advice No. 15-08  
Proposed Changes to Schedule 110 New Homes Program – Docket No. 15-035-\_\_

Enclosed for filing are an original and five (5) copies of proposed tariff sheets associated with Tariff P.S.C.U No. 50 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 (the “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 July 1, 2015 for these changes.

Second Revision of Sheet No. B.1	INDEX	Electric Service Schedules
First Revision of Sheet No. 110.1	Schedule 110	New Homes Program
First Revision of Sheet No. 110.2	Schedule 110	New Homes Program
First Revision of Sheet No. 110.3	Schedule 110	New Homes Program
Canceling Original Sheet No. 110.4	Schedule 110	New Homes Program
Canceling Original Sheet No. 110.5	Schedule 110	New Homes Program
Canceling Original Sheet No. 110.6	Schedule 110	New Homes Program
Canceling Original Sheet No. 110.7	Schedule 110	New Homes Program
Canceling Original Sheet No. 110.8	Schedule 110	New Homes Program
Canceling Original Sheet No. 110.9	Schedule 110	New Homes Program
Canceling Original Sheet No. 110.10	Schedule 110	New Homes Program

The purpose of this filing is to propose changes to the New Homes Program (“Program”) administered through Electric Service Schedule No. 110. The Program reduces residential customer energy usage by offering financial incentives to builders for the energy efficient construction of new single family and multifamily homes. Through this filing, the Company is proposing modifications to the Program intended to introduce new energy efficiency opportunities and make administrative changes to the tariff. All changes are designed to increase participation and energy savings while maintaining or enhancing Program cost-effectiveness. Proposed changes to the tariff sheets are included in Exhibit A.

The Company proposes to add new qualifying measures including:

- Electrically commutated motor for 95% efficient gas furnace
- Air source heat pump
- 60% of lighting fixtures contain ENERGY STAR qualified lighting products

The Company proposes to extend the incentive application deadline from 120 days to 180 days and retire/remove measures from the tariff sheets that were available for a limited time that are no longer available.

### **Proposed Program Changes**

#### **Provisions of Service**

The Program proposes to move the PROVISIONS OF SERVICE section from the last page of the current tariff to the first page.

Under PROVISIONS OF SERVICE, the Program proposes to extend the incentive application deadline from 120 days to 180 days to align with Questar’s 180 day submission deadline. Aligning the submission deadlines will eliminate confusion between the two programs and will provide a better customer experience.

To streamline the tariff a few requirements are proposed to be eliminated from the PROVISIONS OF SERVICE section since they are redundant or are covered by the measure tables.

**Table 1 – Changes to Provisions of Service**

<b>Language</b>	<b>Reason for Change</b>
New Homes Program builders are required to sign and abide by the terms of the Builder Participation Application.	Any builder applying to the Program is required to submit a signed incentive application containing terms and conditions they must abide by.
New Homes HERS rater organizations (licensed by RESNET) are required to sign and abide by the terms	Any rater applying to the Program is required to submit a

and agreements of the Rater Participation Agreement.	signed incentive application containing terms and conditions they must abide by.
New Homes Quality Installation HVAC contractors are required to sign and abide by the terms and agreements of the Contractor Participation Agreement.	A heating, ventilating and air conditioning (“HVAC”) Contractor Participation Agreement will no longer be a Program requirement. This was initiated as a way to assist builders and HVAC contractors in understanding what is required of them when installing a system related to ENERGY STAR or the HVAC-Quality Installation measures. Since a licensed contractor is required for these systems and ENERGY STAR has specific requirements for quality HVAC installations, the Program finds this additional paperwork is redundant and no longer needed.
Incentives for ENERGY STAR qualified homes must meet the applicable ENERGY STAR version guidelines and earn an ENERGY STAR certification from the U.S. EPA.	Covered by the reference to ENERGY STAR qualified homes in the measure tables.

95% AFUE Gas Furnace with ECM Blower

The Program proposes to add a \$150 incentive for installing a high efficiency natural gas furnace with an annual fuel utilization efficiency (“AFUE”) of 95% or higher equipped with an electrically commuted motor (“ECM”) in a single family or multifamily new home. An ECM is able to save energy during both heating and cooling seasons by adjusting the speed of the fan to maintain optimal airflow. Installing furnaces with an ECM is not standard practice, therefore offering an incentive for these installations provides an opportunity to improve the performance of heating and cooling systems throughout the year. The Company has offered incentives for existing homes for installing a 95% AFUE gas furnace with ECM through Schedule 111 – Home Energy Savings Incentive Program (“HES Program”) since 2012. This will align the Program with the Questar ThermWise Builder Program, which offers incentives for furnaces with an ECM, thus making adoption more attractive to builders.

HVAC-Quality Installation Contractor and Rater Certification with ECM

By adding an incentive for 95% AFUE gas furnaces with an ECM, the incentives in Table 5 of the current tariff for encouraging contractors and raters to do HVAC quality installations on

matched central air conditioning systems with an ECM motor for the furnace fan are no longer needed. The two measures to be retired are labeled as follows in Table 5 of the current tariff:

- HVAC-QI Contractor cert w ECM
- HVAC-QI Rater cert w ECM

For clarity, the first measure listed above is HVAC-Quality Installation Contractor certification with ECM and the second is HVAC-Quality Installation Rater certification with ECM. The existing measure requires the installation of a matching central air conditioner with a furnace containing an ECM. To receive the incentive, contractors and raters must follow and document quality installation practices. The existing measures have seen little participation. Program staff reviewed the proposed retirement and replacement of the two measures with the 95% AFUE gas furnace with an ECM with builders, contractors and raters, and they are supportive of the changes.

### Air Source Heat Pumps

The Program proposes to add incentives for air source heat pumps for new homes. By adding air source heat pumps, along with the incentive for 95% AFUE gas furnaces with an ECM, the Program will cover all of the main heating and cooling system types in a new home. Incentives for central air conditioners and evaporative coolers are already available.

Based on discussions with HVAC contractors and feedback from the Utah Demand-side Management (“DSM”) Steering Committee, the Program proposes to offer incentives for two different types of installation scenarios. A lower incentive will be offered for air source heat pumps where natural gas is available at the property line. This scenario assumes a natural gas furnace will be paired with an air source heat pump. A higher incentive will be provided for air source heat pumps installed where natural gas is not available at the property line, because energy usage and potential energy savings are higher for a home without access to natural gas supply for space heating. Incentives will be differentiated for single family and multifamily homes.

For the air source heat pump where natural gas is available at the property line, only savings for cooling will be claimed. Since the cooling portion of the heat pump operates just like a central air conditioner, the cooling only heat pump will use the same savings and offer as the same incentive for the currently offered high efficiency air conditioner. Savings for the air source heat pump where natural gas is not available at the property line will be based on cooling and heating savings. Both versions of the measure will require a seasonal energy efficiency ratio (“SEER”) of 15, which is the same requirement for central air conditioners. A heating seasonal performance factor (“HSPF”) of 9 will be required for both measures.

Adding incentives for air source heat pumps for residential new construction complements the incentives for heat pumps and ductless heat pumps for existing homes that were added to the HES Program in 2014.

**Table 2 – Heat Pump Measures for New Homes**

<b>Heat Pump Measures for New Homes</b>	<b>Single Family</b>	<b>Multifamily</b>
15+SEER/9+ HSPF air-source heat pump with thermal expansion valve – central ducted system. If natural gas is available at the property line.	<b>\$100</b>	<b>\$75</b>
15+SEER/9+ HSPF air-source heat pump with thermal expansion valve – central ducted system. If natural gas is not available at the property line.	<b>\$250</b>	<b>\$200</b>

ENERGY STAR Lighting

The Program currently offers incentives for homes built when at least 80% of the fixtures contain ENERGY STAR qualified lighting products such as CFLs, LEDs or pin-based florescent bulbs. The incentive varies for single family and multifamily homes based on the home size, small, medium or large. The Program has received regular feedback from builders that the 80% threshold is difficult to achieve.

To encourage more builders to incorporate high efficiency lighting into their homes, the Program proposes to add a lower tier of lighting at 60% of the fixtures containing ENERGY STAR bulbs. The incentive for the 60% tier will be lower than the 80% tier. There are two significant barriers to meeting 80% efficient lighting in residential new construction. The first barrier is the use of recessed light fixtures. About 30% of bulbs in a typical new home are in recessed cans, mainly in the kitchen and family room. Energy efficient light bulbs for recessed can-light fixtures are expensive compared to standard CFLs take longer to come to full brightness (60 seconds vs. 3 minutes according to ENERGY STAR standards). These two characteristics make them less desirable for some builders to install in their new homes. The second barrier is the use of “race track” light fixtures in bathrooms that leave the bulb exposed and require the use of a “Hollywood” bulb for visual reasons. Energy efficient “Hollywood” bulbs cost far more than standard CFLs and many builders are not willing to spend the extra money on these bulbs to participate in the program.

To streamline the tariff and to provide more flexibility to respond to changing participation rates at the two different lighting tiers, the Program proposes to switch to “up to” incentives for the single family and multifamily lighting incentives. All the current requirements for ENERGY STAR qualified lighting products, Residential Energy Services Network (“RESNET”) defined qualifying light fixture locations and different incentives based on home size will remain unchanged.

Miscellaneous Changes

The Program is proposing several minor changes to the language in the tariff to clarify measure names and requirements.

**Table 3 – Miscellaneous Changes**

<b>Current Language</b>	<b>Proposed Language</b>	<b>Reason for Change</b>
Exterior Wall Upgrade	Exterior Wall Upgrade – 2x6/R-20	Adding measure requirements to measure name.
Refrigerator 10% > Energy Star	Refrigerator	Simplifying the measure name. Measure requirements are not changing and are still tied to Consortium for Energy Efficiency (“CEE”) Tier 3 which requires refrigerators to be 10% > than ENERGY STAR.
IECC 2009	Above Code Home	Simplifying the measure name.
ENERGY STAR v3	ENERGY STAR	Simplifying the measure name. The version number is not relevant as ENERGY STAR has no immediate plans to move beyond version 3. Homes can only be certified to version 3.
High Performance ENERGY STAR v3 Home	High Performance ENERGY STAR Home	Simplifying the measure name. The version number is not relevant as ENERGY STAR has no immediate plans to move beyond version 3. Homes can only be certified to version 3.

Measure Retirements and Tariff Clean-up

Instead of having separate tables on different pages in the tariff for incentives for single family and multifamily measures, the Program proposes to merge them into one table. The side-by-side view will provide a consolidated view of the measures offered to the two housing types.

In the current tariff, notes appear at the bottom of each table providing details on additional measure requirements. The Program is proposing to move all of the notes into the description of the measures under the Equipment column on the tariff sheets so the complete measure description and requirements are in one place. Note 5 below Table 5 on sheet 110.7 of the current tariff is proposed to be moved to sheet 110.2 under the BUILDER INCENTIVE paragraph.

Dishwashers are proposed to be retired due to a high market share penetration of energy efficient units. Incentives are probably not a key driver in maintaining or growing this market share, so the recommendation is to retire dishwashers from the Program.

Incentives for ENERGY STAR v2.5 are proposed to be retired from the Program because v2.5 is no longer available from ENERGY STAR.

All measures in the current tariff in Table 1 and 2 are being retired as they were for single family and multifamily homes permitted before November 16, 2011 and submitted to the Program before July 1, 2012.

All measures in the current tariff in Table 3 and 4 are being retired as they were for single family and multifamily homes permitted on or after November 16, 2011 and submitted to the Program by January 1, 2013.

### **Program Cost Effectiveness**

Measure and Program level cost-effectiveness are provided to support the filing as Exhibit B – Utah New Homes Cost Effectiveness Analysis. Cost effectiveness was assessed using the decrement values generated by the 2013 Integrated Resource Plan (“IRP”) as the avoided costs. These values can be found on pages 358-359 of Volume 2 of the 2013 IRP dated April 30, 2013. The net-to-gross percentage applied is consistent with the percentage from 2013 annual report and aligns with the freeridership percentage estimated in the 2009-2010 Program evaluation from Appendix A. The realization rate is consistent with the 2013 annual report. Measure level cost effectiveness does not include administrative costs given the challenges of allocating them to individual measures. Measure level results are provided in Tables 14-15 of Exhibit B. Total Program administrative costs are included in and accounted for in the Program level cost effectiveness. The cost-effectiveness analysis includes both current and proposed incentives for 2015 in order to provide a complete and accurate as possible forecast of Program cost-effectiveness.

Measure level assessment was performed using three end use specific loads shapes and decrement values to more fully capture the time differentiated value of the savings. This is a new approach and better aligns the value of the savings with specific end uses. Program level results are the sum of measure specific benefits and costs weighted by participation which are then added to overall Program administration costs.

To account for a range of participation, two Program level scenarios were run with participation varying at +/- 10%. Three different Program level cost-effectiveness scenarios were run on the proposed changes.

- Expected participation
- Ten percent higher than expected participation
- Ten percent lower than expected participation

The Program remains cost-effective with the proposed changes herein under the expected, high and low participation scenarios. Detailed cost-effectiveness results are provided in Exhibit B.

## Program Costs

Program costs by cost category and year for the expected participation scenario are provided in Table 4 below.

**Table 4 – New Homes Program Costs**

	Program Admin (\$)	Utility Admin (\$)	Evaluation (\$)	Total Program Costs (\$)
<b>Program Year 2015</b>	\$865,000	\$32,000	\$100,000	\$997,000
<b>Program Year 2016</b>	\$915,000	\$32,000	\$0	\$947,000
<b>Total PY 2015-2016</b>	<b>\$1,780,000</b>	<b>\$64,000</b>	<b>\$100,000</b>	<b>\$1,944,000</b>

## Conclusion

The changes proposed in this filing were previewed with the Utah DSM Steering Committee on October 14, 2014. A draft filing was shared with the Steering Committee via email on March 23, 2015. The Company held a teleconference with the Steering Committee on April 15, 2015 to discuss the filing materials and address concerns and questions. The Company also discussed the draft filing with the DSM Advisory Group on April 16, 2015. The Steering Committee is supportive of the majority of the proposed changes.

As additional support for Program modifications, the Company is providing Confidential Exhibit C – P-Corp Design Tool and Confidential Exhibit D – New Homes Measure Forecast Summary. Confidential Exhibit C contains propriety information that would be detrimental to Navigant, the contractor who prepared the cost effectiveness results, if disclosed to a competitor. Confidential Exhibit D contains propriety information that would be detrimental to Nexant, the Program implementation contractor. Accordingly, the Confidential Information Certificate that the Company desires parties in this docket to execute prior to obtaining access to confidential information is attached hereto as Exhibit E.

The Program is funded through Schedule 193 – DSM Cost Adjustment. Any proposed adjustment to Schedule 193 will be informed by the next tariff rider analysis, which will examine the combined effect of the current balance, forecasted revenues and forecasted expenditures for all programs. The Company is not recommending an adjustment to Schedule 193 as part of this filing.

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

Informal inquiries regarding this matter may be directed to Michael Snow, DSM Regulatory Manager, at (801) 220-4214.

Sincerely,

Bill Comeau  
Director, Demand-side Management

Enclosures

cc:     Division of Public Utilities  
         Office of Consumer Services