



State of Utah  
Department of Commerce  
Division of Public Utilities

FRANCINE GIANI  
*Executive Director*

THAD LEVAR  
*Deputy Director*

CHRIS PARKER  
*Director, Division of Public Utilities*

GARY HERBERT.  
*Governor*  
GREG BELL  
*Lieutenant Governor*

## **ACTION REQUEST RESPONSE**

To: Utah Public Service Commission

From: Division of Public Utilities  
Chris Parker, Director  
Energy Section  
Artie Powell, Manager  
Sam Liu, Utility Analyst  
Thomas Brill, Technical Consultant

Date: November 9, 2011

Re: Docket No. 11-035-T11 – Schedule 110–ENERGY STAR New Homes Program

### **RECOMMENDATION (Approval, with Qualification)**

The Division of Public Utilities (Division) recommends that the Public Service Commission (Commission) approve Rocky Mountain Power's (Company) changes to the tariff sheets for Schedule 110, the ENERGY STAR New Homes Program. The Company's revisions are in compliance with the EPA-modified ENERGY STAR Version 2.5 guidelines for new homes and are consistent with EPA timelines and requirements. The Division makes this approval with a qualification, however. The Division is concerned with the overall program's very marginal Utility Cost Test of 1.02 and requests clarification from the Commission on how a Utility Cost Test "close" to 1.0 should be used and interpreted. The Division also recommends that this issue should be discussed by the DSM Advisory Board at the earliest opportunity.

### **ISSUE**

The Company's ENERGY STAR New Homes Program (Program), Schedule 110, is currently designed to be in compliance with EPA's ENERGY STAR Version 2.0 guidelines for new homes, which was developed by EPA in 2006. Version 3.0 of the ENERGY STAR New Homes

guidelines was released in October 2010, and EPA has modified, clarified and refined various aspects of the program documents. With ENERGY STAR Version 3.0, EPA introduced updates to several important implementation details for its new ENERGY STAR New Homes guidelines. A transition version (Version 2.5) was scheduled to become effective at January 1, 2011, but the implementation date was delayed by three months to April 1, 2011. Without adopting ENERGY STAR Version 2.5, the Company will not be eligible to certify ENERGY STAR homes.

On October 19, 2011, the Commission issued an Action Request for the Division to provide comments on its proposed Tariff changes, Electric Service Schedule 110 – ENERGY STAR for New Homes Program. The Company proposes changes to tariff sheets 110.1, 110.2 (single-family, v 2.0), 110.3 (multi-family, v 2.0), 110.6, and B.1, as well as adds tariff sheets 110.4 (single-family, v 2.5 or v 3.0) and 110.5 (multi-family, v 2.5 or v 3.0). The Company proposed filing the Program changes in order to provide an extension between ENERGY STAR Version 2.0 to 3.0 for the remainder of 2011 and requested the Program modifications with a proposed effective date of November 16, 2011. This memorandum represents the Division's response to the Commission's Action Request.

With the ENERGY STAR New Homes program now in the process of transitioning from Version 2.0 to Version 3.0, the Company intention is to move its ENERGY STAR New Homes program forward by using the transitional Version 2.5 as a bridge between Version 2.0 and 3.0. The Company is implementing a plan to phase in modified, transitional guidelines consistent with EPA timelines and requirements. Homes permitted, including both multi-family and single-family homes, before April 1, 2011 can continue to be qualified under Version 2.0 until December 31, 2011. One exclusion, however, is low-income multi-family dwellings (in which at least one unit is reserved for low-income tenants) financed through low-income housing agencies. This category can continue to be qualified under Version 2.0 until the end of 2012, after which time it is required to meet Version 3.0 guidelines. Homes permitted between April 1, 2011 and December 31, 2011, with a final inspection date before July 1, 2012, must qualify under Version 2.5 guidelines. Homes with permit dates on or after January 1, 2012 must qualify

under Version 3.0 guidelines. Version 2.5 specifications are generally identical to Version 3.0 with some exceptions. Version 2.5 does not require specific supporting compliance documentation and will help partners successfully transition from the ENERGY STAR Version 2.0 to 3.0 guidelines.

## **DISCUSSION**

The Company is filing its application in order to align the Program with recent changes to new ENERGY STAR Program guidelines for the remainder of 2011, as well as to improve Program administration and cost effectiveness. The Division notes that ENERGY STAR Version 2.5 is a transitional guideline intended to help partners successfully transition from ENERGY STAR Version 2.0 to 3.0. Without adopting ENERGY STAR Version 2.5, the Company will no longer be eligible to certify homes under the federal ENERGY STAR label. In preparing for the transitional Program, on June 23, 2011, the Company discussed the ENERGY STAR Version 2.5 guideline requirements and their effect at the Company's DSM Advisory Group. In addition, the Company met with builders and equipment rating specialists to discuss the Program design.

Tariff sheets revisions detailed descriptions of Program measures and requirements with remarks to the ENERGY STAR Program guidelines which included tariff tables 1, 2, 3, and 4. The Company provided the Benefit-Cost Analysis for Version 2.5 or 3.0 measures with confidential spreadsheet Attachments A, B, C, D, E, and F. The Division reviewed each of these confidential spreadsheets. The results of the Benefit-Cost Analysis are summarized in the Company's filing in Tables 1, 2, and 3. Table 1 measures the overall Program, while Table 2 covers single-family measures and Table 3 covers multi-family measures. The Company reported results for eight program design scenarios:

- 1a and 1b scenarios are Version 2.5 without Plus Measures, but with presumed participation numbers, and medium and low decrement values from the 2011 IRP;
- 2a and 2b scenarios are Version 2.5 with Plus Measures, presumed participation, and medium and low decrement values from the 2011 IRP;

- 3a and 3b scenarios are Version 2.5 with Plus Measures, presumed participation plus and minus 10 percent, and medium decrement values from the 2011 IRP;
- 4a and 4b scenarios are Version 2.5 with Plus Measures, presumed participation plus and minus 10 percent, and low decrement values from the 2011 IRP.

“Plus Measures” are additional equipment and energy efficiency improvements that must be installed in conjunction with the qualifying tier to be eligible for incentives. These are listed in detail on the tariff sheets. Scenario 2a is the proposed baseline assumption for this filing, while the other scenarios provide a sensitivity analysis of cost effectiveness. For each of the eight scenarios, the Utility Cost Test, the Rate Impact Test, the Participant Cost Test, and two forms of the Total Resource Cost Test are reported. The Total Resource Cost test includes both costs and benefits to program participants, while the Utility Cost Test excludes both participant costs and other non-electricity participant benefits. The Company acknowledges that a marginal Utility Cost Test of 1.02 for the full program barely passes the threshold cost effectiveness test for ENERGY STAR Version 2.5. Furthermore, the Company intends to propose several Program modifications in its Version 3.0 filing and proposes other non-ENERGY STAR measures for new homes. These program improvements and other measures are intended to enhance the cost effectiveness of the Version 3.0 Program in December 2011.

The Division is concerned with the marginal cost-effectiveness of the Program, as demonstrated by the overall Program Utility Cost Test of 1.02 for the base case. The UCTs for other cases are lower, and some appear to be significantly less than one.

In the Commission’s DSM Order of October 7, 2009 in Docket No. 09-035-27, the Commission identified the Utility Cost Test as the threshold test. However, the Commission’s order provides no guidelines as to how to interpret a marginal test as in the present case. For example, if we treat the base case UCT as a point estimate, the Division has no basis to judge the accuracy of the estimate *vis-a-vis* a confidence interval or other objective criteria. As far as we know, the estimate could be statistically significantly greater than or indistinguishable from one (or a range of values less than one).

The Division notes that the cost effectiveness could be improved by lowering the incentives. However, lowering the incentives risks a loss of participation, which could offset or exceed the gains in the UCT from the lower incentive payments. Given the transitional nature of Version 2.5, the Division is reluctant to recommend that the program not be approved. Not approving the program could result in lost saving opportunities. The Division also notes that the program under Version 2.5 will be of limited duration. The Division believes that in the absence of an objective basis for interpreting and applying marginal test results, some cushion should be used as a rule of thumb to determine when a program passes the UCT. Therefore, the Division recommends that the Commission direct the Advisory Board to take up this issue at the earliest possible opportunity.

Finally, the Division identified a few minor corrections in the revised tariff sheets. Equipment of Tier 1 on the Table 3 (Sheet 110.4) and Table 4 (Sheet 110.5) requires adding the language “air conditioner equipment minimum standard of SEER 13” to complete the specifications. The minimum SEER rating of residential central air conditioner allowed today is 13, which went into effect on January 23, 2006. Air conditioners manufactured after January 26, 2006 must achieve a SEER of 13 or higher. The filing tariff offers a \$350 incentive in Tier 1 to builders who install a minimum standard of SEER 13 central air conditioner, only increase the installation of CFLs, LEDs, or pin-based lighting from 75 percent (the existing tariff Table 1, Tier 2 , \$300 incentive) to 80 percent, and increase the incentive by \$50.

In Table 3 (Version 2.5), the Tier 1 80 percent CFL requirement and the 90 percent CFL Plus Measure option will keep a \$75 incentive value until the end of 2011, but in Table 1 (Version 2.0), the 90 percent CFL Plus Measure option requests from the Tier 1 50 percent CFL requirement to qualify for the same value of incentive.

## **CONCLUSION**

The Division concludes that the proposed program is marginally cost-effective, with the threshold Utility Cost Test for the overall program barely exceeding 1.0. Nevertheless, the overall program Utility Cost Test at 1.02 is consistent with the Commission’s goal of promoting

cost-effective DSM programs as measured by the Utility Cost Test. The Division recognizes that the Company's revisions are in compliance with the EPA-modified transitional ENERGY STAR Version 2.5 guidelines for new homes and are consistent with EPA timelines and requirements. The Division recommends that the Commission approve the Company's changes to tariff sheets for Schedule 110, the ENERGY STAR New Homes Program. Nevertheless the Division makes this approval with a serious reservation. The Division is concerned with the very marginal Utility Cost Test of 1.02. The Division recommends that the issue of a Utility Cost Test "close" to 1.0 be discussed by the DSM Advisory Board at the earliest opportunity and report back to the Commission possibly with a recommendation addressing a resolution to this issue.

CC: Michele Beck, CCS  
Dave Taylor, RMP