

- BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH -

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In the Matter of the Proposed Revisions to )  
the Utah Demand Side Resource Program ) DOCKET NO. 09-035-27  
Performance Standards ) ORDER  
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ISSUED: October 7, 2009

By The Commission:

INTRODUCTION

On April 27, 2009, PacifiCorp, doing business in Utah as Rocky Mountain Power (“Company”), filed with the Public Service Commission of Utah (“Commission”) a collaborative report entitled, “Utah Demand Side Management and Other Resources Benefit and Cost Analysis Guidelines and Recommendations” (“2009 Report”). The Company prepared this report in response to Commission orders in Docket Nos. 07-035-T04 and 07-035-T14.<sup>1</sup> In Docket No. 07-035-T04, we directed the Company, the Utah Division of Public Utilities (“Division”), and the Demand Side Management (“DSM”) Advisory Committee to work on recommendations for the Commission’s consideration to clarify the overall DSM program design, approval, implementation, and evaluation processes. In Docket No. 07-035-T14, we directed the Company to include recommendations on appropriate cost-effectiveness criteria and guidelines for a solar program in its recommendations regarding cost-benefit definitions and assessments. On May 7, 2009, the Commission issued an action request for the Division to provide comments on the

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<sup>1</sup> April 2, 2007, Order in Docket No. 07-035-T04, “In the Matter of Advice Filing 07-04 of PacifiCorp d/b/a Rocky Mountain Power for Formal Approval – Schedule No. 113 – 2007 Cool Cash Incentive Program” and August 3, 2007, Order in Docket No. 07-035-T14, “In the Matter of the Approval of Rocky Mountain Power’s Tariff P.S.C.U. No. 47, Re: Schedule 107 - Solar Incentive Program.”

proposed and existing DSM standards and guidelines. On July 7, 2009, the Division and Office of Consumer Services (“OCS”) provided comments on the proposed changes.

BACKGROUND

The 2009 Report consists of a 24 page report, an appendix (list of Utah DSM Advisory Members) and two attachments (the October 2001 version of the California Standard Practice Manual, and the 1995 DSM Cost Recovery Collaborative Guidelines). It provides recommendations to update the performance standards proposed in the 1995 “Demand Side Resource Cost Recovery Collaborative Final Report to the Commission” which were adopted by the Commission in Docket No. 92-2035-04.<sup>2</sup> The 1995 performance standards provide guidance on consistent methods and standards by which DSM is determined to be in the public interest in the planning, implementation, acquisition, evaluation and cost recovery stages of program review.

The 2009 Report states the 1995 performance standards are still generally valid today but recommends updates to the Company’s DSM program approval and acquisition processes to address changes since 1995. For example, the Company has replaced its loan programs with rebate programs in order to achieve higher participation levels, thus raising utility costs and eliminating the development of measure<sup>3</sup> funding limits for loans in the acquisition stage. The Company also now recovers costs through a tariff rider on customer bills, thus

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<sup>2</sup> Demand Side Resource Cost Recovery Collaborative, Final Report to the Commission, Appendix VII, March 31, 1995, Docket No. 92-2035-04, “In the Matter of Rate Making Treatment of Demand-Side Resources and the Analysis of Regulatory Changes to Encourage Implementation of Integrated Resource Planning.”

<sup>3</sup> A DSM “measure” is a specific energy conservation action that can be taken to reduce energy consumption e.g., a lighting retrofit or attic insulation.

putting greater emphasis on the program approval process for prudence review rather than seeking cost recovery in a general rate case. Further, the Company has developed more sophisticated methods for estimating utility cost savings from DSM programs rather than relying on avoided costs approved for Schedule No. 37 payments to small qualifying facilities. Additionally, since the 1995 report focused on energy efficiency and load management, the applicability of cost-benefit tests to resources other than DSM, such as renewable on-site generation, was not addressed.

The 2009 Report lists the following recommendations:

- The current California Standard Practice Manual (SPM) should continue to be the source for the basic definitions of the economic tests with modifications as necessary to reflect Utah specifics.
- All five economic tests are useful in understanding program effectiveness; however, the Utility Cost Test is recommended as the threshold test in determining program prudence.
- The Company and the Advisory Group recommend redefining the stages of demand side resource acquisitions and reducing the number of stages from five to three (Planning, Program Approval and Prudence Review, and Program Performance Reporting).
- The Company will provide all five economic tests at two stages: 1) Program Approval and Prudence Review, and 2) Program Performance Reporting.
- The Commission maintains its discretion to approve programs that are in the public interest.
- The Company will analyze DSM including development of supply curves based on the utility's resource cost of bundled measures for the Planning stage.
- To minimize variations in calculation methodology between Utah program evaluations and the SPM, the Rate[payer] Impact Measurement calculation should be changed to include full rate impacts over the life of the demand side resource.

- Economic tests should be applied at the program level unless evaluating supporting “cost only” initiatives under which case a portfolio level is most appropriate.
- Strategic communications and outreach initiatives (training, education, awareness, sponsorship, etc.) should not be subject to economic tests. However, the Company and the Advisory Group believe that the portfolio of programs including costs associated with these initiatives must remain cost effective to demonstrate prudence.
- Prudence should be determined at the Program Approval stage. Programs that are determined to be non-cost effective at the Performance Reporting stage should be modified, justified (e.g. start-up or multi-year program) or cancelled.
- The integrated resource plan (IRP) decrement approach or modeling inputs and assumptions consistent with the IRP should be used to develop avoided costs.
- Absent more appropriate economic tests, small-scale renewable resources may be evaluated on the same basis as energy efficiency and load management. The Commission may approve small-scale renewable resource projects that fail one or more of the economic tests but are determined to be in the public interest.

Specifically, the 2009 Report recommends several changes to current practice.

First, it recommends redefining the stages of DSM program review and reducing the number of stages from five (planning, implementation, acquisition, evaluation and cost recovery) to three (planning, program approval and prudence review, and program performance reporting).

Planning retains its original definition. The program approval and prudence review stage replaces implementation and cost recovery stages and is defined as the regulatory filing and approval process during which the program tariffs are reviewed and approved by the Commission. This includes the case for both new programs and modifications to existing programs. The program performance and reporting stage replaces the acquisition and evaluation stages and is defined as the analysis of an operating program when actual costs and reported

savings are available. This stage also includes third party evaluations and self-directed project analyses and the submission of an annual report no later than March 31st of the following year.

Second, the 2009 Report recommends the Company continue to provide all five cost-benefit tests at the Program Approval and Prudence Review and Performance Reporting stages. These five tests are the Utility Cost (“UC”), Participant Cost (“PC”), Ratepayer Impact Measure (“RIM”) and two forms of Total Resource Cost (“TRC”) tests. The TRC test is performed with and without the northwest convention of a 10 percent adder to avoided costs to account for unquantified environmental and transmission and distribution impacts. These tests are defined to varying degrees in the 2009 Report, the 1995 guidelines and the California Standard Practice Manual. Further, the approval of DSM programs or portfolios of programs should be based on an overall determination it is in the public interest after consideration of all five tests and passage of the UC test. The 1995 performance standards generally recommended passage of all tests in these stages.

Third, the 2009 Report recommends changing the primary planning cost-benefit test from total resource cost analysis to utility cost analysis. Total resource cost analysis includes costs and benefits to participants in the program whereas the utility cost analysis excludes participant costs and other non-electricity participant benefits.

Fourth, the 2009 Report recommends a change in the calculation of the RIM test which evaluates the program’s effect on average rates. The recommendation is to calculate RIM as defined in the California Standard Practice Manual, which includes the impact of the net

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difference between utility operating costs and revenues over the lifetime of the program rather than one year, as had been the case in the 1995 performance standards.

The 2009 Report also recommends judging cost effectiveness at the program level rather than the measure or measure group level and that the Commission exercise judgement based on a review of all five tests in the determination of program effectiveness, with emphasis placed on the UC test as the threshold test for cost-effectiveness in the assessment of program prudence. The 2009 Report explains there are instances where individual measures may not be cost effective on their own, but enhance the overall program. The Company will continue to provide cost-benefit analysis for measures or groups of measures within a program and where a measure fails one or more of the tests, the Company will provide sufficient justification for including the measure as part of the overall program.

PARTIES' COMMENTS

The Division filed comments summarizing the report and recommending the Commission adopt the report's proposed recommendations. The Division states it was a contributing team member on the DSM Advisory Group and approved the group's final draft of the collaborative document as filed.

The Division also notes issues have been raised by industrial customer representatives regarding DSM program cost-effectiveness tests in Docket No. 09-035-T08,<sup>4</sup> wherein the Company requested an increase in its DSM Tariff Rider charge. However, the Division asserts the evaluation of DSM cost-effectiveness measures has been a top priority for

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<sup>4</sup> Docket No. 09-035-T08, "In the Matter of the Approval of Rocky Mountain Power's Advice No. 09-08 Schedule 193 - Demand Side Management (DSM) Cost Adjustment."

the DSM Advisory Group since it was directed by the Commission to take actions on existing cost-effectiveness tests in 2007 and argues there has been sufficient time and opportunity for all interested parties to participate in the process outlined in Docket No. 07-035-T04. Therefore, the Division recommends the Commission approve the recommendations contained in the 2009 Report.

The OCS filed comments stating it actively participated in the process of revising the 1995 performance standards. The OCS submitted comments to the Company on the draft report and many of its recommendations were adopted and are reflected in the proposed guidelines. The OCS believes the recommended use of the utility cost test will put demand-side resources and supply-side resources on the same footing and ensure consistency between the primary test used to screen DSM programs at the integrated resource planning stage and the program implementation stage. The OCS notes the practical effect of shifting from total resource cost to utility cost is that more DSM resources will likely be selected as cost effective in future IRP case scenarios.

The OCS also refers to the comments of the industrial customer representatives in Docket No. 09-035-T08, in which these groups requested a review of the cost-effectiveness of existing DSM programs, as well as raising other policy issues. The OCS believes the issues raised by the industrial customers are significantly inter-related with this docket and the two dockets should be considered in context of each other. Absent the petitions by the industrial customer groups in Docket No. 09-035-T08, the OCS would have supported and recommended approval of the 2009 Report recommendations, but now it believes the issues raised in the other

docket should be addressed and resolved by the Commission before it considers revisions to the DSM guidelines.

DISCUSSION, FINDINGS, AND CONCLUSIONS

This matter is before us because issues have been raised over the past few years in the regulatory review of DSM programs regarding the continued application of the 1995 performance standards. Because the Company files for DSM program approval through a tariff application which generally is effective within 30 days, rather than through general filings where more time is available for review, the issues have often caused suspension of tariffs pending review and resolution of the issues. We are interested in streamlining the DSM review and approval processes to ensure adequate yet timely review of new programs and program changes. Further, we adopted a tariff rider for cost recovery of DSM program expenses in 2003, effectively removing review of DSM costs and benefits in general rate cases, putting greater emphasis on the program approval and revision processes. Therefore, we had directed the Company and Division to work with the DSM Advisory Group to examine the continued applicability of the 1995 performance standards.

We appreciate the work contained in the 2009 Report and generally adopt its recommendations as noted below. We also provide additional direction to the Company to ensure timely and adequate review of programs both before and after implementation, to streamline the DSM review and analyses processes, to ensure the Company's DSM programs are evaluated to determine actual savings, that they continue to be in the public interest, and also to bring greater consistency with the regulatory treatment of Questar Gas Company DSM



programs. We concur with the renaming and reduction of the stages of DSM review and proceed by identifying the key changes to DSM analysis at each stage of program review and specifying additional guidance.

***Planning:***

The 2009 DSM Report recommends use of the utility cost test rather than total resource cost test for determination of cost effective DSM in its IRP. This, the report argues, will better align evaluation of supply and demand-side resources as required in our 1992 IRP guidelines.<sup>5</sup> It will also have the effect of increasing the amount of DSM available for acquisition through utility programs. This is because only the cost incurred by the utility (recovered through charges to customers) is included in the cost of the DSM measure. We concur this approach is more applicable to the costs incurred by ratepayers for supply-side resources and accept the use of the utility cost test for identifying annual targets of utility-sponsored DSM megawatts and megawatt-hours found to be cost effective in the IRP.

The 2009 Report recommends using the IRP method for valuing energy and capacity saved from DSM programs rather than relying on Schedule No. 37 avoided cost rates for small qualifying facilities. We agree this approach better identifies the expected costs to be avoided through DSM programs and provides greater consistency of the evaluation of DSM in planning, program approval and prudence review and therefore, we approve this approach. In order to understand the effects of carbon tax assumptions on the megawatts and megawatt-hours

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<sup>5</sup> June 18, 1992, Report and Order, Docket No. 90-2035-01, "In the Matter of Analysis of an Integrated Resource Plan for PacifiCorp."

of cost-effective DSM, we direct the Company to identify such amounts for each carbon tax assumption employed in the IRP, including the assumption of a zero value carbon tax.

***Program Approval and Prudence Review:***

The 2009 Report states the 1995 implementation and cost recovery stages (and we note also the acquisition stage) are now one and the same due to our approval of a stipulation in 2003<sup>6</sup> establishing a tariff rider to collect DSM costs from customers generally concurrent with program expenditures. Prior to approval of the stipulation, prudence was determined in a general rate case wherein rates were set including the prudent costs of DSM programs.

According to the tariff rider stipulation, DSM costs are to be removed from revenue requirement in a general rate case (though we note the Company must continue to report these costs in its semi-annual reported results of operation). Therefore we now rely primarily on the cost-effectiveness analysis contained in the Company's application for DSM program and tariff approval, which is prior to program implementation, and any comments received by other parties at that time, to determine prudence and approval of cost recovery.

The 2009 Report recommends continued use of all tests at this stage of the analysis but recommends two changes. First, the RIM test should be calculated assuming impacts over the life of the program's savings rather than the current limitation of one year's assessment of net revenue impact. Second, the 2009 Report recommends the utility cost test as the threshold test for program approval; the 1995 performance standards recommended passage of all tests. We will continue to expect the Company to design programs that pass all of the tests

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<sup>6</sup> October 3, 2003, Report and Order Confirming Bench Decision in Docket No. 02-035-T12, "In the Matter of Demand Side Management Cost Recovery by PacifiCorp dba Utah Power & Light Company."

at this stage of review and will consider any arguments to approve a program that fails certain tests but is still shown to be in the public interest. We concur with the recommendation to require the program to pass the utility cost test at a minimum.

One of the issues raised by the Division in its review of the Cool Cash program, is what to do when a program marginally passes a test. The 2009 Report does not appear to address this issue other than to say the Company may provide and parties may request sensitivity analysis at the Program Approval and Prudence Review and Performance Reporting stages to test the impacts of changes in key program assumptions. We find this inadequate given the short time frame allowed for review of a tariff filing, and also given that this review essentially determines prudence for cost recovery. We must have confidence the expected costs and savings of a particular program are likely to occur. Therefore, we direct the Company to provide sensitivity analysis of the major drivers of a program, e.g., avoided costs, carbon tax assumptions, savings per participant, and participation rates. This analysis shall be provided in the Company's application for program approval or modification, and all sources for the range of estimated values shall be provided. The Division is directed to review the drivers and assess their reasonableness based on information available for similar programs throughout the nation and any relevant, existing, ex-post program impact evaluations. This information should also address a second concern the Division had which was inadequate time to review and comment on the tariff application. Inclusion of this information up-front will address the need to streamline the DSM approval process yet provide comprehensive review and oversight of a program's expected cost effectiveness prior to cost recovery.

There is another issue that was addressed in the cost recovery stage of the 1995 performance standards, but is not discussed in the Program Approval and Prudence Review stage. This is the requirement that cost recovery be tied to an analysis of whether the Company is obtaining the least cost combination of supply-side and demand-side resources, consistent with its IRP analysis. We direct the Company to include in its application for program approval or modification, a demonstration of the program's contribution to the IRP annual planned acquisition of DSM load reductions.

We concur with the recommended calculation of the RIM test as it is more in line with our current regulatory approach to DSM and also direct the Company to continue to provide the lifecycle revenue impact per kilowatt and kilowatt hour for this test. Indeed, all forms of the benefit cost results required on page 14 of the 1995 performance standards shall continue to be provided by the Company in its presentation of any test results. Should the RIM test results indicate a concern over impacts to average rates, this issue should be examined in the Company's IRP process.

For consistency with the planning estimates, we concur with the recommendations to use IRP avoided costs to evaluate program cost effectiveness at this stage. We also concur cost effectiveness should be performed at the program level but that measure level analysis shall be presented as well. Where a measure fails one or more of the tests, the Company shall provide sufficient justification for including it in the program.

Additionally, in order to better track program evaluations, the Company shall include in its filing for program approval or modification, the scheduled timeline for formal evaluation of the program.

***Program Performance Reporting***

The 2009 Report recommends this stage replace the evaluation stage. The evaluation stage is defined in the 1995 performance standards as the stage when actual costs and verified energy savings estimates are available. We note the recommended Program Performance Reporting stage refers to “reported” rather than “verified” savings. The 1995 performance standards report defines the term "verified" energy savings as "ex post" energy savings as distinguished from "ex ante" engineering estimates. The 1995 performance standards report explains, “Ex ante engineering estimates are predictions of DSR performance based on computer modeling prior to project installation. Ex post savings are determined by applying samples of metered data, survey research and analysis of actual bills to the ex ante engineering estimates after the installation is complete or actual conditions can be taken into account.” We are interested in ensuring utility sponsored DSM programs produce the intended net benefits for ratepayers and emphasize the need for the evaluation of verified energy savings. Therefore, we further define the term “reported” to include both ex post and ex ante energy savings.

While the 1995 performance standards noted the Company would file annual evaluation reports, and our approval of the stipulation in Docket No. 02-035-T12 required annual reporting, the 2009 Report also recommends an annual report, this time no later than March 31<sup>st</sup> of the following year. We note we have seen few annual reports and cannot recall receiving ex-

post impact evaluations of any DSM program for some time. We stress the importance of such evaluations to ensure ratepayers receive the expected net benefits from their expenditures on DSM. Therefore, we once again approve the recommendation for an annual report, and approve its filing date to be no later than March 31<sup>st</sup> of every year.

We concur with the recommendations to include all of the cost-effectiveness tests in the Program Performance Reporting stage of review, including portfolio analysis in addition to the program and measure level views, and use of IRP avoided costs to evaluate program cost effectiveness. Again, sensitivity analysis around assumed, deemed, or other ex ante values is required. We concur with the recommendation that for programs achieving less than a 1.0 benefit cost ratio, a list of remedial actions for improving program performance should be provided or the program should be terminated. Additionally, the Company shall perform the tests assuming its most recent IRP avoided costs, subject to any Commission order with respect to the IRP avoided costs, in addition to the avoided costs used when the program was approved. The report shall also include a review of the IRP planned DSM amounts and the annual report's "actual" results. Each report should include the results of ex-post impact evaluations or the schedule for completion of ex-post impact evaluations to be conducted for each program.

The 2009 Report does not indicate the detail to be included in the March 31<sup>st</sup> annual report and therefore we direct the Company to identify the format and content of this report and submit it for approval within 45 days.

***Applicability of DSM Cost Benefit Tests to Other Resources***

We concur with the recommendation to evaluate small-scale renewable resources, such as solar photovoltaic projects, on a similar basis as energy efficiency and load management until other economic tests are available. Thus, all five tests will be performed. Should any of the tests fail, the Company and parties may present arguments, and we shall consider, whether the program is in the public interest for reasons other than economic efficiency.

ORDER

NOW, THEREFORE, IT IS HEREBY ORDERED, that:

1. The 1995 performance standards are amended to include the 2009 Report recommendations subject to the comments and additions contained herein.
2. The Company shall file for Commission approval the proposed content and format of the annual DSM report required in the Program Performance Reporting stage within 45 days from the date of this order.

DATED at Salt Lake City, Utah, this 7<sup>th</sup> day of October, 2009.

/s/ Ted Boyer, Chairman

/s/ Ric Campbell, Commissioner

/s/ Ron Allen, Commissioner

Attest:

/s/ Julie Orchard  
Commission Secretary  
G#63848