ROCKY MOUNTAIN POWER
A DIVISION OF PACIFICORP

201 South Main, Suite 2300
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November 11, 2011

VIA ELECTRONIC MAIL
AND OVERNIGHT DELIVERY

Jean D. Jewell
Commission Secretary
Idaho Public Utilities Commission
472 W. Washington
Boise, ID 83702

RE: PAC-E-11-13 – In the Matter of the Application of Rocky Mountain Power Seeking Authorization to Suspend Future Program Evaluations of Schedule 21, Low Income Weatherization Services for Income Qualifying Customers

Dear Ms. Jewell:

Please find enclosed for filing in the above-captioned case an original and seven (7) copies of Rocky Mountain Power's reply comments to the Idaho Public Utilities Commission Staff and Community Action Partnership Association of Idaho's comments filed in the above referenced matter.

Sincerely,

Jeffrey K. Larsen /ca

Jeffrey K. Larsen
Vice President, Regulation

cc: Brad Purdy/CAPAI

Enclosures

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BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF THE APPLICATION OF ROCKY MOUNTAIN POWER FOR AN APPROVAL OF AN EVALUATION OF SCHEDULE 21, LOW INCOME WEATHERIZATION SERVICES OPTIONAL FOR INCOME QUALIFYING CUSTOMERS	))))))	CASE NO. PAC-E-11-13

COMES NOW PacifiCorp dba Rocky Mountain Power ("RMP" or the "Company") and pursuant to Rules 56 and 121 of the rules of Procedure of the Idaho Public Utility Commission (the "Commission"), submits its reply comments in the above referenced case.

Background

On April 29, 2011 the Company filed an application seeking an Order to remove future obligation of the Company to perform program evaluations of its Low Income Weatherization Service Optional for Income Qualifying Customers program offered under Schedule 21.

On October 28, 2011 the Idaho Public Utilities Commission Staff ("Staff") and Community Action Partnership Association of Idaho ("CAPAI") filed comments concerning the Application of Rocky Mountain Power in Case No. PAC-E-11-13. The Company believes that the comments contained several inaccurate statements or misunderstandings that it respectfully requested an opportunity to clarify.

Response to Staff's Comments

Staff raised concern that "...a billing analysis was applied five years apart (one year of billing data on either end of the three year period selected) to low income customers who move much more frequently than regular-income residential customers."[1]

The Company would like to clarify that the billing analysis consists of comparing the usage prior to program participation with the usage after program participation. In an analysis of a single year this would result in three years of data in the analysis, one year prior to participation, the year of participation and one year subsequent to participation. Due to the limited number of participants, the entire three year evaluation was treated as a single cohort. The pre-period, therefore, was the year prior to the first program year and the post-period was the year subsequent to the final program year. This results in a five-year total analysis period. In its analysis, Cadmus addressed the effect of movers by including them in the savings regression model, thus controlling for their impacts.

Staff also comments that "The billing analysis captured 100% of the savings, even though Rocky Mountain only paid for 75% of the energy efficiency measures installed during the life of this program. Correcting this over-estimation by claiming 75% of the savings would further hurt the cost effectiveness of this program."[2] The Company claims 100% of the savings because it believes that unless the participating customers are free riders, i.e. they would pursue the savings without the availability of the incentives, the energy savings associated with the project would not otherwise have been achieved. Consequently the energy savings in total and any attributes associated with the energy savings are a benefit of the investment.

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[1] Staff Comments page 6, third paragraph.
[2] Staff Comments page 6 and 7.

Staff states "When a CAP installs a suite of measures in a residence, it records and reports to Rocky Mountain the number of measures installed and the cost of each measure, but Rocky Mountain does not capture this data in its database."[3] The Company captured and stored the CAP reports in its legacy REST database. In 2010 the Company implemented a new tracking system (TrakSmart) which went live in 2011. The following information is stored in the legacy REST system:

1. Type of dwelling – single family/manufactured home/apartment
2. Primary heat type
3. All measures installed
4. Total estimated kWh savings per measure
5. Date services provided
6. Agency providing services
7. Total cost per measure
8. RMP rebate per measure
9. RMP payment towards agency admin.

As noted, Cadmus utilized a billing analysis approach to evaluate the LIWA program which did not use some of the information stored in REST. The Company would also note that billing analysis is the industry-standard method for verification of savings in residential weatherization programs, especially for low income programs. The large number of participants and non-participants allows for the generation of statistically significant savings estimates. Comparison groups are created by usage characteristics to account for differences in housing size, occupancy, and other demographics which may affect savings. Using deemed savings numbers or engineering algorithms for programs offering home weatherization may overestimate savings due to the interaction of the measures.

On page 9, Staff recommends; "that Rocky Mountain facilitate implementation of electronic file transfer capability so that information can be transmitted electronically from the agencies to Rocky Mountain and retained for future analysis." As noted above Rocky Mountain

[3] Staff Comments page 8, first paragraph.

Power implemented a new database system effective January 1, 2011, TrakSmart. In the development of this system the Company considered the electronic transfer of the low income weatherization information into the tracking system. Given the cost associated with the implementation of this functionality and the number of annual completed homes in Idaho, the decision was made to delay the implementation of this functionality until it proved cost effective.

Response to CAPAI's Comments

CAPAI's comments seem to reflect a misinterpretation of the findings of the April 20, 2011 Cadmus evaluation of Rocky Mountain Power's low income weatherization program. The comments question the credibility of the findings of the report, indicating the report has "fatal flaws". CAPAI's comments are based on a review of the report by Mr. Roger Colton. The Company will address each of Mr. Colton's observations below.

Before addressing Mr. Colton's review of the evaluation, the findings of Cadmus' evaluation should be clarified. CAPAI asserts that "The CADMUS study proclaims that Rocky Mountain Power's current program is not cost-effective based on traditional evaluation methodologies and criteria."[4] This statement, which appears to be the fundamental basis for the remainder of CAPAI's comments, is factually incorrect. Cadmus' report clearly states that "the program *is* cost effective when *all* benefits are considered."[5] This is consistent with the Company's Application:

> "Rocky Mountain Power's portfolio of energy efficiency programs are cost-effective, but the cost-effectiveness calculations included in the attached evaluation indicate that Schedule 21 is not cost-effective from the Total Resource Cost (TRC), Utility Cost (UCT) or Ratepayer Impact (RIM) perspectives ***unless non-energy benefits are included***."[6] (Emphasis added)

[4] CAPAI's comments, page 2.
[5] Page ES-4 of the Cadmus report states "When all benefits (energy and non-energy) are included, the program is cost-effective from both the total resource cost (TRC) and PacifiCorp total resource cost (PTRC) perspectives, at 1.15 and 1.23 respectively, as shown below in Table 4."
[6] Section 6 of Rocky Mountain Power's April 29, 2011 Application PAC-E-11-13.

CAPAI admitted that LIWA is a unique DSM program and "Consequently, many of the program benefits fall outside the traditional DSM cost-benefit evaluation methodologies."[7] CAPAI may have mistakenly relied upon the portion of the analysis that indicated the cost-effectiveness based only on the direct energy savings. CAPAI acknowledges that it was not a party to the "Memorandum of Understanding for Prudency Determination of DSM Expenditures" entered into by the Commission staff and the three investor owned electric utilities in Idaho on December 21, 2009, and may not be aware that this MOU clearly recognizes the value of non-energy benefits in determining cost effectiveness and directs the utilities to include them explicitly as benefits rather than reductions to cost.[8] Cadmus' study adhered to the methodology of the MOU and found that the Rocky Mountain Power's low income weatherization program is cost effective when non-energy benefits are included. CAPAI states that conclusions derived from the study are "highly inaccurate and misleading." This seems to contradict CAPAI's assertion that it believes the program to be cost-effective, which is the conclusion of Cadmus' evaluation.

CAPAI correctly notes that Cadmus chose not to attempt to quantify certain non-energy benefits. The quantification of non-energy benefits is often subject to considerable debate. Certain non-energy benefits, such as the impact on arrearages, may be determined with reasonable accuracy through an analysis of utility records. Others, such as health improvements, are much more subjective and still other potential benefits such as "reductions in crime, homelessness, and improved living conditions," cited by CAPAI are unquantifiable. All evaluation studies require professional judgment as to what information to quantify and explicitly include, what information to include qualitatively, and what information is superfluous

[7] CAPAI Comments page 13.
[8] MOU Attachment 1, paragraph 4.

or insignificant and should be excluded. These decisions are driven by availability of data, the cost of analysis and the significance of the information to the overall findings. In the present case, Cadmus determined that inclusion of the selected non-energy benefits was sufficient to demonstrate that the program was cost-effective. As Mr. Colton acknowledged, "the basic approach used by Cadmus in the evaluation of the cost-effectiveness of the Rocky Mountain Power low-income weatherization program is, fundamentally, a sound approach."[9]

The Company disagrees with CAPAI's assertion that the evaluation of the LIWA program is "long-overdue". To the contrary, Order No. 32196 states; "The Commission recognizes the Company's DSM Memorandum of Understanding commitments and its compliance efforts; accepts Staffs analysis of the Company's 2008 and 2009 DSM programs and related expenditures; finds the expenditures to be just, reasonable and in the public interest; and finds the costs to be prudently incurred and appropriate for recovery in the Company's Schedule 191 (Customer Efficiency Services Rate Adjustment) tariff." At the time the MOU was entered into, Rocky Mountain Power was already engaged in overseeing the work of 17 different evaluations that were completed by the end of 2010 and first quarter of 2011. The evaluation of the Company's Idaho LIWA program for the 2007 through 2009 was expected early in 2011 consistent with Company testimony at the general rate case hearings. The LIWA final evaluation report was issued on April 20, 2011 and filed with the Commission April 29, 2011.

CAPAI noted that the Cadmus' evaluation of the Company's 2007 through 2009 LIWA program did not include the costs the Company paid to Cadmus. Costs incurred for the evaluation of programs are recognized in the program year the activity takes place. The costs of the LIWA evaluations were included in 2010 and 2011 program costs. These costs can represent

[9] Refer to page 25, "Assessing the Cost-Effectiveness of Low-Income Weatherization in Idaho" prepared by Roger Colton.

ten to twenty percent of the annual program expenditures and will have a significant impact on the cost effectiveness of the programs in those years. If the Commission rules that LIWA program evaluations should continue, the Company respectfully requests that evaluation costs should be considered at the DSM portfolio level not at individual program levels due to the impact these costs can have on smaller programs and the inability to smooth the costs between evaluations. The Company disagrees with CAPAI's assertion that the cost of evaluations should be less in subsequent years. A third-party program evaluation requires basic review and analysis, even if you only account for inflation, future evaluations will cost more than they do today.

Mr. Colton's review of the report suggests that quantification of additional non-energy benefits, using a different methodology, adoption of quantifications determined in other studies or the use of a non-energy benefit "adder" may increase the reported cost-effectiveness of the program. The Company agrees, but the point is moot as noted in Table 4 from Cadmus' evaluation that the program passes cost-effectiveness tests without the benefits suggested by Mr. Colton.

Table 1. Program Cost-Effectiveness Summary Including Non-Energy Benefits 2007-2009*

Cost Effectiveness Test	Levelized $ / kWh	Costs	Benefits	Net Benefits	Benefit / Cost Ratio
Total Resource + Conservation Adder (PTRC)	$0.099	$426,022	$525,295	$99,273	1.23
Total Resource No Adder (TRC)	$0.099	$426,022	$491,475	$65,453	1.15
Utility (UCT)	$0.099	$426,022	$346,529	-$79,493	0.81
Ratepayer Impact (RIM)	$0.189	$815,476	$346,529	-$468,947	0.42
Participant (PCT)	$0.083	$355,470	$744,924	$389,454	2.10
Lifecycle Revenue Impact	$0.00001028				

* The calculations are based on the program components in place during the period 2007-2009 when Rocky Mountain Power provided a rebate covering 75% of the cost of approved measures. As of 12/28/10, they are covering 85% of these costs, which will reduce the net benefits from the utility and rate impact perspectives.

Mr. Colton's report "Assessing the Cost-Effectiveness of Low-Income Weatherization in Idaho" specifically challenges Cadmus' methodology or findings in 11 areas. The Company will address each of these findings in the following paragraphs.

Account for the disproportionate impact of price hikes and economic recession on non-participants.

Mr. Colton states that, "Cadmus notes that while 'these factors would likely also affect the participant population...the impact of these on their household would have been less than for the [non-]participating population.' (Cadmus, at 18)[10]." Cadmus' report highlights two potential factors that may have contributed to the observed reductions in consumption in nonparticipant homes (e.g., the rate increase and the economic recession). The Cadmus report notes that weatherization participants' overall decline in usage would have mitigated some of the impacts associated with these two factors. Because they did not receive the benefit of reduced consumption through weatherization, nonparticipants may have pursued other energy-saving behavioral changes.

In its report, Cadmus recognized that there are a large number of factors that affect energy use. Some of these factors may have different effects on participants and the nonparticipant group. Cadmus controlled for these differences by carefully matching participant and nonparticipant pre-program usages to the maximum extent possible.

Account for difference in persistence of savings between participants and non-participants.

Mr. Colton states that "The Cadmus study failed to account for the lower persistence rate of usage reduction actions taken by non-participants in response to price increases and economic recession."[11] Mr. Colton contends that "lifetime net savings attributable to the weatherization program are understated."[12] Mr. Colton does not quantify these differential impacts nor does he offer a method for how they might be quantified to support his contention. Uncertainties

[10] Refer to page 4, "Assessing the Cost-Effectiveness of Low-Income Weatherization in Idaho", prepared by Roger Colton. While the Cadmus report states that the impacts would have been greater for the *participating* population, it subsequently acknowledged a typographic error and the intent to state that the impact of the price increases and economic recession on the savings for the *non-participant* population would have been greater than on the participant population. (CAPAI-1-23, CAPAI-1-24).

[11] Page 22, "Assessing the Cost-Effectiveness of Low-Income Weatherization in Idaho", prepared by Roger Colton.

[12] Page 7, this problem, too, would affect all calculations of changes in arrearages and/or payments.

surrounding the persistence of energy savings exist for both participants and non-participants. Consequently, Cadmus did not apply a degradation factor to either population.

Distinguish between heating and non-heating participants and Identify non-heating non-participants.

Mr. Colton claims that the nonparticipant group would have been comprised primarily of electrically-heated customers (based on identification using energy assistance payments, which are likely provided for primary heating service) and, for this reason, he asserts the study's approach is fundamentally flawed due to this "critical analytic mistake."[13] Mr. Colton misinterprets the quotation in the report that indicates between 35 and 48 percent of homes served are electrically heated. This figure represents the proportion of total homes served by the interviewed community action program agency that are electrically heated, not the proportion of electrically heated homes in the analysis sample.

Of the 166 participants included in the analysis sample, 164 were electrically heated homes. In order to determine the impact of the two non-electrically heated homes, Cadmus re-estimated savings excluding these two participants. This analysis indicated savings that were nearly identical to the original gross savings estimate, see Table 1 below.

Table 1. Gross Participant Model Savings Estimates (with and without the non-electrically heated group)

Group	n	Gross Savings (kWh)
Participants Only (All)	166	1,987
Participants Only (Removing non-electrically heated homes)	164	1,985

Moreover, Mr. Colton asserts that the nonparticipant sample selected as a comparison group was inappropriate for this analysis due to potentially higher income and that Cadmus did not account for this.

[13] Page 6, "Assessing the Cost-Effectiveness of Low-Income Weatherization in Idaho", prepared by Roger Colton.

The nonparticipant group was identified based on those Rocky Mountain Power customers that received energy assistance payments based on LIHEAP income qualifications (60 percent Idaho median income). The program participants are based on federal poverty level income qualification (150 percent of Federal Poverty Level). Table 2 below shows a comparison of the two income eligibility criteria by family size.

Table 2. Comparisons of 2011 Eligibility Criteria

Persons in Household	Idaho 60% Est. Median Income	150% Federal Poverty Level
1	$19,854	$16,335
2	$25,963	$22,065
3	$32,072	$27,795
4	$38,180	$33,525
5	$44,289	$39,255
6	$50,398	$44,985

Normalized consumption for disproportionate change in days off system due to disconnection for nonpayment.

Mr. Colton asserts that "The Cadmus study failed to account for the fact that non-participants had a higher rate of disconnections for nonpayment, as well as a higher proportion of customers experiencing any disconnections." According to Mr. Colton, this omission "would not result in a … reduction in sales/usage attributable to days on which service was disconnected would inappropriately appear as a 'usage reduction' in the non-participant population."

It is important to note that, as described in the report, the payment analysis (including disconnections) and savings analysis were conducted on separate samples.[14] To investigate the possible effect of the differential impacts of disconnects on savings, Cadmus conducted additional analysis excluding all of the participants and nonparticipants with any disconnections

[14] Rocky Mountain Power's response to CAPAI Data Request No. 30

in either the pre- or post-periods. As shown in Table 3, excluding homes that had disconnections during this period from both the participant and nonparticipant populations would result in lower net program savings.

Table 3. Gross Participant and Nonparticipant Model Savings Estimates (with and without disconnections)

Group	n	Gross Savings (kWh)
Participants Only (All)	166	1,987
Participants Only (No Disconnections)	150	1,825
Nonparticipants Only (All)	664	932
Nonparticipants Only (No Disconnections)	589	885

Exclude previously-weatherized homes from non-participant population.

Mr. Colton states "The Cadmus study failed to account for the fact that a significant number of non-participant homes would have received federally-funded weatherization services prior to the study period. As a result, the savings for these homes would have been increased relative to previously not weatherized program participants, due to the increased ability of households to control their energy consumption,"[15]

Cadmus conducted a sensitivity analysis by assuming the same level of federally-funded weatherized homes in 2006 as in 2007. This increased the annual per home net savings by about 5 percent (from 1,308 to 1,379 kWh).

Calculate arrearage reductions over the life of the weatherization measures.

Mr. Colton states "The Cadmus study inappropriately found that arrearage reductions were a one-time, first year, impact rather than an annual impact. The impact of reduced arrearages should be considered over time, not merely in the first year."[16] Cadmus is not aware of any research indicating persistence of arrearage reductions beyond 1 year. In TecMarket Works 2004

[15] Page 23, "Assessing the Cost-Effectiveness of Low-Income Weatherization in Idaho", prepared by Roger Colton.
[16] Page 23, "Assessing the Cost-Effectiveness of Low-Income Weatherization in Idaho", prepared by Roger Colton.

Study "Assessment of WHEAP and WAP Program Participation and the Effects on Wisconsin's Low-income Population" the authors find that weatherized participants, after receiving energy assistance to reduce their arrearage balance, accrue 60% of that balance back within six months.

Assign cost savings to improvements in payment amounts, increased number of payment numbers, and reduced number of disconnections.

Mr. Colton states "The Cadmus study failed to assign any utility cost savings to reduced arrearages, reduced numbers of service disconnections for non-payments, and an increased number and dollar value of participant payments. Cadmus failed to account for fundamental cost savings such as reduced working capital, decreased bad debt, reduced and redeployed credit and collection activities, and reduced lost sales."[17] The Cadmus study did not attempt to quantify all non-energy benefits. The Company agrees with Mr. Colton that the quantification of additional benefits would increase the benefit cost ratio above its current level of a TRC of 1.15.

Account for differences in payments toward bills for other than current usage (e.g., late payment charges, reconnection fees, etc.).

Mr. Colton states "The Cadmus study failed to account for the fact that an increased proportion of non-participant payments were directed toward bills other than for current usage. Non-participant payments were disproportionately devoted to customer service fees such as late payment charges, reconnect fees, field collection fees, and the like."[18]

Mr. Colton only mentions the possible impact of additional *charges* incurred on the payment analysis, without also looking at the additional utility *credits*. Cadmus looked at both the charges and credits in combination early in the analysis. The additional charges and the additional credits substantially cancelled each other out. The net effect between average annual charges and credits ranged $8 for participants to $16 for nonparticipants. These represent only 1

[17] Page 23, "Assessing the Cost-Effectiveness of Low-Income Weatherization in Idaho", prepared by Roger Colton.
[18] Page 23, "Assessing the Cost-Effectiveness of Low-Income Weatherization in Idaho", prepared by Roger Colton.

percent of the billed amount, and hence Cadmus believed that their inclusion would be insignificant to the payment analysis.

Include pre-installation months in "post-installation" data.

Mr. Colton states "The Cadmus study failed to ensure that all "post-installation" data actually represented time subsequent to the installation of weatherization measures. Including pre-installation data on usage and payments/arrears has the impact of reducing the calculated impact of the weatherization measures."[19] The date field included in the participant database corresponded to the date in which the project information was entered into the database, rather than the installation or project completion dates. For this reason, some projects with dates listed after October 2009 actually had installations prior to October 2009 and did not conflict with the selected post-period.

Cadmus repeated the analysis, excluding all participants with date field values of October 2009 or later. 41 participants (twenty-five percent) were eliminated when this screen was applied. As shown in Table 4, the gross participant savings increased by nineteen percent. Given this potential increase in savings, additional research on the project completion dates may be warranted.

Table 4. Gross Participant Savings Estimates (with and without overlapping dates in post-period)

Group	n	Gross Savings (kWh)
Participants Only (All)	166	1,987
Participants Only (No dates after Oct 2011)	125	2,344

Counts bill credits as a "negative arrears" rather than as a $0 arrears.

Mr. Colton states "The Cadmus study inappropriately included monthly bill credits as a reduction to arrears. An account with a bill credit in any given month has a $0 arrears, not a

[19] Page 23, "Assessing the Cost-Effectiveness of Low-Income Weatherization in Idaho", prepared by Roger Colton.

negative arrears."[20] Cadmus conducted additional analysis of payments, setting negative arrears to zero. The average net arrearage reduction increased from $31 per customer to $34 per customer, resulting in an increase in the annual arrearage benefit from $8,302 to $9,031.

Conclusion

Rocky Mountain Power is concerned about the significant burden program evaluation costs place on the smaller DSM programs where these costs can represent ten to twenty percent of the annual expenditures for the program. For the evaluation period, 2007 through 2009, there were no evaluation costs included because they were not incurred until 2010 and 2011. That expense will be included in the evaluation of the program results for those years. Staff, CAPAI, and the Company all acknowledge that there are societal non-energy benefits from the LIWA program. Rocky Mountain Power's portfolio of energy efficiency programs is cost-effective, but the cost-effectiveness calculations included in the evaluation indicate that Schedule 21 is not cost-effective from the Total Resource Cost (TRC), Utility Cost (UCT) or Ratepayer Impact (RIM) perspectives unless non-energy benefits are included. Staff and CAPAI raised questions about what non-energy benefits should be included in LIWA evaluations. The Company is open to Staff's workshop recommendation to determine a standard evaluation approach for low-income programs. If the Commission determines that evaluation of LIWA should continue, the Company respectfully requests that evaluation costs be included at the DSM portfolio level rather than at the individual program level.

[20] Page 24, "Assessing the Cost-Effectiveness of Low-Income Weatherization in Idaho", prepared by Roger Colton.

DATED this 11th day of November 2011.

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