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IDAHO PUBLIC
UTILITIES COMMISSION

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF THE)
APPLICATION OF ROCKY)
MOUNTAIN POWER REQUESTING)
APPROVAL OF REVISIONS TO ITS)
DISPATCHABLE IRRIGATION)
LOAD CONTROL PROGRAM)

CASE NO. PAC-E-11-06

Direct Testimony of Carol L. Hunter

ROCKY MOUNTAIN POWER

CASE NO. PAC-E-11-06

January 2011

1 **Introduction**

2 **Q. Please state your name and business address.**

3 A. My name is Carol L. Hunter. My business address is One Utah Center, 201 South
4 Main, Salt Lake City, UT 84111.

5 **Q. By whom are you employed and in what position?**

6 A. I am a Vice President for Rocky Mountain Power.

7 **Q. Please describe the responsibilities of your current position.**

8 A. I am responsible for demand-side management for Rocky Mountain Power and
9 for Pacific Power. This includes the planning, development, design, approval and
10 implementation of programs designed to reduce energy consumption through
11 energy efficiency and behavioral changes and to reduce consumption during peak
12 periods of usage through load control.

13 **Qualifications**

14 **Q. Please describe your background.**

15 A. I received a B.S. in mechanical engineering in 1977 and an M.B.A. in 1987 from
16 the University of Utah. I joined PacifiCorp in 1977 as a customer service engineer
17 and have held various management positions in resource planning, wholesale
18 marketing, community and business services and economic development. In 2004,
19 I was promoted to vice president.

20 I have held numerous board positions over my 30 year career and
21 currently serve on the executive board of the Salt Lake Chamber of Commerce,
22 the Idaho Strategic Energy Alliance and the energy efficiency subcommittee of
23 the Utah Energy Taskforce.

1 **Q. What is the purpose of your testimony?**

2 A. The purpose of my testimony is to describe the proposed changes to the
3 Company's Dispatchable Irrigation Load Control Program, Schedule 72A (the
4 "Program").

5 **Q. What is the purpose of the Program and who is eligible to participate?**

6 A. The Program is a voluntary load control program available to agricultural
7 irrigation customers receiving service under the Company's Schedule 10,
8 Irrigation and Soil Drainage Pumping Power Service. The purpose of the Program
9 is to allow the Company to control demand and manage the system summer peak
10 by turning off participating pumps periodically, not to exceed 52 hours, during
11 June 1 through August 31 (the "Program Season"). Participants voluntarily agree
12 to allow the Company to turn off pumps, with a day ahead notification, any
13 Monday through Friday between 11:00 a.m. and 7:00 p.m. Mountain Daylight
14 Time during the Program Season. In return, participants receive a load control
15 payment or credit against their outstanding bill before October 31st of each year.

16 **Irrigation Load Control Program**

17 **Q. What is the current status of the irrigation load control Program?**

18 A. The Company's irrigation load control Program has grown from 65 MW in 2007
19 to 203 MW in 2008. During the 2010 Program Season, approximately 278 MW of
20 load was enrolled in the Program. During the 2008 and 2009 Program Seasons,
21 the Company began noticing voltage excursions outside industry acceptable
22 standards during dispatch events. By 2010, the Company began to phase-in and
23 out of dispatch events to try to minimize these excursions. While this phasing

1 approach helped minimize excursions, the Company was still unable to take the
2 entire participating load off during the peak time period between 2:00 and 6:00
3 p.m. due to the magnitude of participating loads on some circuits. The
4 participating loads were simply too dominant on some circuits for the Company's
5 voltage control equipment to compensate for the loss of loads. As a result, with
6 the agreement of the customers, some loads had to be scheduled for curtailment
7 outside of the primary dispatch hour or hours. While this action, coupled with the
8 phase-in and out of dispatch events, was effective in stabilizing the voltage
9 excursions, doing so diluted the total control available during any peak hour when
10 the Program's resources are needed to manage system demands. The Company
11 realized that Program modifications were required to provide the Company the
12 flexibility to select Program participation by system circuit.

13 **Q. Did the Company intend to make modifications to the Program earlier?**

14 A. Yes. During the 2010 Program Season the Company prepared an application to
15 address these issues. Before filing the application the Company spoke with
16 Commission Staff who recommended not proposing changes during the Program
17 Season.

18 Later in the year, through discussions with Staff it became apparent that
19 they planned on raising issues concerning the treatment of the Program in the
20 Company's pending general rate case (PAC-E-10-07). Ultimately, Mr. Randy
21 Lobb and Ms. Terri Carlock filed direct testimony proposing that the costs
22 associated with the Program be system allocated rather than directly assigned to
23 Idaho. I sponsored rebuttal testimony requesting that the Commission approve

1 modifications to the Program that I believe will reduce the costs of the Program
2 and increase its effectiveness.

3 **Q. With a pending Commission Order in Case No. PAC-E-10-07 (2010 GRC),**
4 **why is the Company filing this Application?**

5 A. There are three primary reasons for the filing: First, the current tariff language
6 states that the Company will communicate the value of the load control service
7 credit to customers by February 15. It is my understanding that a decision will not
8 be rendered in the 2010 general rate case until the end of February 2011. Second,
9 while I addressed the major Program changes that the Company is proposing in
10 my rebuttal testimony in the 2010 GRC, there are some additional minor tariff
11 language revisions that need to be made. Finally, the Company did not file revised
12 tariff sheets as part of the 2010 GRC. When the Commission's interlocutory order
13 was silent on the proposed Program modifications, the Company realized the only
14 way to have an order approving changes to the Program would be to file a
15 separate tariff advice or application. On January 11, 2011, the Company filed a
16 tariff advice requesting that the proposed changes be processed and approved by
17 February 11, 2011. This timeline would allow the Company to communicate
18 Program changes to customers before the February 15th deadline. On January 13,
19 2011, Staff contacted the Company and requested that the Company withdraw its
20 tariff advice and file this Application.

21 **Q. Has the Company communicated these proposed changes to its customers?**

22 A. Yes. While preparing rebuttal testimony filed in Case No. PAC-E-10-07, I and
23 other Company representatives had several conference calls with representatives

1 of the Idaho Irrigation Pumpers Association. During those calls several options
2 were discussed, including the revisions listed in my testimony. Further, the Idaho
3 Irrigation Pumpers Association actively participated in Case No. PAC-E-10-07
4 and therefore was made aware of the proposed changes.

5 **Q. Please identify the changes that you are proposing to the irrigation load**
6 **control Program.**

7 A. The Company proposes that the following changes be made to the Program tariff:

- 8 • Add similar language to that of Idaho Power's participation selection
9 language to the Company's tariff. The Company proposes the following
10 language be added to Schedule 72A:

11 The Company shall have the right to select and reject Program
12 participants at its sole discretion based on criteria the Company
13 considers necessary to ensure the effective operation of the
14 Program. Selection criteria may include, but will not be limited
15 to; cost effectiveness, impact on the operation of the
16 Company's transmission and distribution system, billing
17 demand, location, pump horsepower, pumping system
18 configuration, and/or electric system configuration. Past
19 participation does not ensure selection into the Program in
20 future years. Participation may be limited based upon the
21 availability of the Program equipment and funding.

- 22 • Reduce the participation credit to \$25.30 per kW per year.
- 23 • Change the penalty for opt-out events available to the Schedule 72A
24 participants to a percentage reduction in the participation credit for each
25 event as follows:

- 26 ▪ 1 opt out event - 100% of the participation credit paid to
27 participant
- 28 ▪ 2 opt out events - 90% of the participation credit paid to participant
- 29 ▪ 3 opt out events - 70% of the participation credit paid to participant
- 30 ▪ 4 opt out events - 50% of the participation credit paid to participant
- 31 ▪ 5 opt out events - 25% of the participation credit paid to participant

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- 6 opt out events - participation in Program terminated for the year
- Finally, the Company has proposed minor language changes in the Program tariff such as; modifying language about continued participation in the Program, eliminating the requirement for internet access, deleting duplicate language dealing with calculation of the credit, removing references to air time communication costs and to use of equipment charges and changing “irrigation season” to “Program Season” in the tariff.

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Q. Please explain the change in tariff language you are recommending to align the Company’s Program tariff with Idaho Power’s participation selection language.

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A. Beginning in 2008, the Program manager for the irrigation load control Program began fielding complaints from the distribution field engineers regarding voltage excursions during dispatch events. In response, the Program manager began notifying distribution engineering of pending events so the Company could make the necessary adjustments to the system to limit the impact to the system. Program participation continued to grow and in 2009 the solution implemented in 2008 was insufficient to address the issue.

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During the period following the 2009 control season, the Program manager, working with the Company’s engineers, identified the upper limits of the load that could be removed from each circuit without adversely impacting the distribution circuit, distribution substation, transmission substation and/or generating voltages that impacted end-use loads. On a circuit by circuit basis, and

1 ultimately on a grower by grower basis, loads were organized so they could be
2 “stair-stepped” on and off in three minute intervals. While this approach resolved
3 part of the issue, there was still an issue on select distribution substations where
4 reductions were limited to a certain magnitude. In these instances, the only
5 solution was to allocate some loads away from the 2:00 – 6:00 p.m. dispatch to
6 two dispatch periods: 11:00 a.m. – 3:00 p.m. and 3:00 – 7:00 p.m. The result was
7 three distinct dispatch periods and within each of the dispatch periods
8 approximately five different “stair step” dispatches. While this best utilizes the
9 loads under management, it dilutes the Program’s contribution during the highest
10 peak hours when the control is needed the most.

11 By including the proposed language in the Company’s tariff, Rocky
12 Mountain Power can improve the impact of the load control Program at peak,
13 lower Program costs and, as a result, maintain and or improve Program cost
14 effectiveness.

15 **Q. What would the impact be to the Program if the incentive payments are**
16 **lowered to the proposed level of \$25.30 per kW per year?**

17 **A.** The Program provides significant benefits to customers, even at a reduced rate of
18 \$25.30 per kW per year. While the Company anticipates that the reduced
19 participation credit will result in some customers electing to not participate in the
20 Program, given the number of other factors that may impact a customer’s decision
21 to participate the Company is unable to provide an estimate of the impact on
22 participation from the proposed reduction in participation credit.

1 **Q. How was the \$25.30 per kW per year arrived at as a recommendation?**

2 A. In its Interlocutory Order in Case No. PAC-E-10-07, the Commission indicated
3 that the Program should be treated as a system resource and allocated system-
4 wide. In that case, I requested that the Commission reduce the participation credit
5 to \$25.00 per kW-year. Since the Interlocutory Order was silent on this issue, the
6 Company has calculated the proposed credit based on its recommendation of
7 \$25.00 with 94 percent of the Program costs being shifted to other states, and
8 \$30.00 based on the current level in Idaho absent approval from the Commission
9 to lower it to the \$25.00 as requested in Case No. PAC-E-10-07.

10 **Q. Please explain the changes to the opt-out penalties you are recommending.**

11 A. Let me start by summarizing the current Program. Participants in the Schedule
12 72A Dispatchable Irrigation Program agree to allow the Company to dispatch
13 their pumps for 52 hours per year. Each dispatch event cannot exceed four hours
14 totaling a maximum of 13 interruptions annually. Program participants are
15 permitted to “opt-out” of up to five events; upon opting out of a sixth event, they
16 are terminated from the Program. Pursuant to terms of the existing Program tariff,
17 participants opting out of an event have their annual participation credit reduced
18 by the posted day ahead market price of electricity. While the Company only
19 experienced 2.9 percent of customers opting out of control events, the penalty
20 associated with opting out is inconsistent with the impact to the Program and no
21 clear price signal is available to customers. Consider the following example:

- 22 • Assume an irrigator opts a 135 Hp pump (100kW) out of the Program
23 during five control events.

- 1 • Assume an average value of the liquidated damages in 2010 currently
2 provided for in the tariff.
- 3 • Under the current tariff provision, the irrigator would receive 96 percent of
4 the total participation credit while only curtailing load during a maximum
5 of approximately 60 percent of the events during a Program Season.
- 6 • Based on the proposed opt-out schedule, the irrigator would only retain 25
7 percent of the credits.

8 The proposed change will improve the performance of the Program by (1)
9 reducing the number of opt-outs and, as a result, increasing the amount of load
10 curtailed during events, and/or (2) reducing the total incentives, thereby reducing
11 the overall cost of the Program. This change has no impact on a participant's
12 ability or rights within the Program to opt-out of an event, but rather provides a
13 framework that better aligns the costs associated with doing so with the value
14 provided through the participation credits.

15 **Q. If the proposed modifications are approved, how will the Company select**
16 **which irrigation customers participate in the Program?**

17 A. The Company believes with the proposed revisions the selection process will be
18 accomplished to a degree through customer self selection. As discussed during the
19 hearings in Case No. PAC-E-10-07, limiting participation to larger pumps should
20 eliminate approximately 13 MW of participation. In addition to this, the reduction
21 in the load control credit and the change in the opt-out penalty are likely to result
22 in additional customers who elect to not participate in the Program. Additionally,
23 during the public hearings held December 14th and 15th as part of the Company's

1 2010 general rate case, Program participants on canal systems indicated that the
2 Program did not work for them due to flooding and water losses once water is in
3 the canal. Accordingly, this may be another area of focus. However, ultimately
4 the Company will need to review participation on a circuit by circuit basis to
5 avoid the current over concentration of participation in any one area and use its
6 discretion provided by the proposed language addition above (that similar to the
7 language found in Idaho Power's tariff) to accept or reject participation requests
8 in order to maintain voltage integrity and to maximize Program impact and
9 economics.

10 **Q. How would customers benefit from these Program changes?**

11 A. These changes will reduce the cost of Program delivery while enabling the
12 Company to more efficiently manage the Program and achieve optimal load
13 control results.

14 **Q. Does this conclude your testimony?**

15 A. Yes.