# State of Utah

DEPARTMENT OF COMMERCE
Committee of Consumer Services

To: The Public Service Commission of Utah

From: The Committee of Consumer Services
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Date: January 22, 2009

Subject: Schedule 96A – Dispatchable Irrigation Load Control Credit Rider Program

Background

On December 17, 2008, Rocky Mountain Power (RMP or Company) filed Advice Letter No. 08-11, accompanied by proposed tariff sheets 96.1-96.4, with the Public Service Commission (Commission) requesting approval of a dispatchable irrigation load control program in Utah. The proposed Schedule 96A program provides Utah irrigation customers a dispatchable load curtailment option, in addition to a pre-scheduled option currently offered under Schedule 96. Under the Schedule 96A option, the Company has the discretion to interrupt participating customers' irrigation pumps via remote dispatch technology, subject to certain Dispatch Event conditions set forth on Page 3 of the Tariff.

The 96A Program is patterned after the dispatchable irrigation load control program available in PacifiCorp's Idaho service territory. According to the Company, it has been able to secure 210 MWs of annual load reductions in Idaho during the summer peak period. The Company estimates a smaller dispatchable irrigation load in Utah at approximately 30 MWs.

The 96A program tariff rider is in effect only during the Irrigation Season (May 25 – September 15 annually) and applicable to irrigation customers served under Schedule 10 that have continuous internet service from May 1 through September 15. The minimum pump size is set at 10 HP, but customers can request evaluation of smaller pumps that may be part of a larger irrigation system.

A customer must execute a Load Control Service Agreement (LCSA) with the Company to participate in the 96A Program. Upon execution, the LCSA remains in force for subsequent years unless canceled by the customer between September 16 and May 30 each year. Customers who have not previously executed a LCSA must do so by April 15 each year to participate in the program. By executing the LCSA a customer agrees to dispatch conditions specified in the tariff, subject to a liquidated damages provision. The liquidated damages provision allows a customer to "opt out" of five Dispatch Events during the Irrigation Season, but the customer will incur a replacement power cost that is applied against (reduces) the Load Control Service Credit. The $/MWh replacement power cost will reflect on-peak prices established at the Four Corners market.

Customers participating in the program will be compensated via a Load Control Service Credit (LCSC) that will be issued to participating customers no later than October 31 each year. The LCSC is determined based on a Fixed Annual Participation Credit multiplied by the Load Control kW at the metered pump site. The value of the Fixed Annual Participation Credit for 2009 is tied to total peak MWs reduced through the 96A program and is represented in the tariff as three distinct tiers:

| Program MWs | $/kW-yr |
|---|---|
| Less than 36 | $23.00 |
| 36-45 | $26.00 |
| 45 or greater | $28.00 |

PacifiCorp retained The Cadmus Group (formerly Quantec) to perform a cost-effectiveness analysis of the proposed 96A program. Cadmus determined that the program was cost effective under all relevant tests (TRC, UC and Utah RIM).

The Company proposes that Commission-approved program costs (administration, field expenses, participation credits, etc.) be recovered through the Schedule 193 Tariff Rider. The Company states Utah customers benefit from the program because the estimated reduction in coincident peak demand results in less costs allocated to Utah, thereby decreasing revenue requirement. However, the Company did not provide an estimate of the revenue requirement impact in the filing.

## Discussion

The Committee submitted two DR sets to PacifiCorp in connection with this docket to obtain additional information and clarify certain aspects of the proposed 96A program. Based on those responses and our review of the proposed program, we offer the following assessment:

A. *Cost Effectiveness*

The response to CCS 1.5 indicates the Company erroneously used a residential line loss factor of 9.72% instead of a lower industrial line loss factor of 6.33% in calculating the avoided cost benefits portion of the cost effectiveness analysis.

Both line loss figures are taken from the Company's 2001 line loss study.

Using a line loss factor of 6.33 lowers the TRC, UC and RIM results as shown in the Company's Attachments 1.1-1 and 1.1-2 (provided as part of the response to CCS DR 1.1). The Company's updated cost-benefit analysis shows that the proposed 96A program is still cost effective under the TRC, UC and RIM tests. The updated cost-benefit analysis is attached to this memo.

B. *Estimated Dispatchable Load*

The Company has been able to secure about 10 MW of prescheduled irrigation peak load reduction via its current 96 program. However, the 10 MW has been split between M-W and T-Th curtailment days. Thus, the effective load reduction is only about 5 MWs on a given summer day.

In CCS DR 1.3 the Committee asked for the Company's estimate of the irrigation load expected to participate in either the existing 96 or proposed 96A programs. In response to CCS DR 1.3, the Company estimates a total curtailable irrigation load of 35 MWs, of which 30 MWs will come from the 96A program. The 30 MWs represents about a 29% penetration level, which suggests an opportunity for higher penetration levels in the future as the program matures.[1] In addition, the estimated participation in both programs totals 35 MWs, which represents a sevenfold increase over the current 5 MW level.

C. *Notification*

While the Company's proposed 96A tariff specifies participating customer loads will be dispatched remotely through notification through internet or cell phone service, it does not clearly specify how much advance notification a customer will receive for a Dispatch Event. Further, the tariff allows a customer to elect to opt out of five Dispatch Events per irrigation season and requires compensation to the utility in the form of paying replacement power costs. Thus, a reasonable notification protocol is important for both the customer and the utility.

In response to CCS 1.8, the Company stated that it will provide day-ahead notice of a Dispatch Event with a follow-up notice the morning of the Dispatch Event day confirming the interruption. This appears to be a reasonable notification protocol and should be clearly specified in the tariff.

D. *Load Control Service Credit*

Participating customers will receive compensation according to a tiered credit (price) structure. According to the Company's response to CCS 2.1, the participation credit levels were designed to foster program participation while maintaining cost effectiveness. The credits within the tiered structure are the

[1] The Idaho dispatchable irrigation program has been in effect for a couple of years and the penetration level is presently about 54%. Irrigation systems (and pumps) in Idaho are generally larger than in Utah; consequently, it may be difficult to achieve a similar penetration level in Utah through the 96A program because the minimum pump size is set at 10 HP.

same as those currently in effect in Idaho.

The Committee believes the Company's proposed tiered credit structure is reasonable, but the levels should be revisited if PacifiCorp's avoided costs materially change. For example, if avoided costs materially increase, it may be possible to encourage more program participation through increases in the credit structure. We expect the Company will evaluate the 96A program on a regular basis for cost-effectiveness and possible improvements.

E. *Utah Ratepayer Benefits*

Utah ratepayers benefit because the program is expected to reduce coincident peak demand during summer months, thereby decreasing costs (revenue requirement) allocated to Utah. According to the Company, the estimated 30 MW reduction in irrigation load was taken into consideration in developing test year loads in the current (2009) Utah rate case.

## Recommendations

The Committee recommends the Commission approve the 96A program, subject to the following requirements:

- A notification provision should be included in the tariff so that participating irrigation customers are clearly aware of (1) how Dispatch Events will be initiated and confirmed by the Company, and (2) the procedures for opting out of a Dispatch Event;
- The cost-effectiveness of the program should be evaluated regularly and reported to the DSM Advisory Group;
- The tiered credit structure should be reviewed regularly for possible modifications depending on program participation levels and changes to avoided costs.