

DECISION MEMORANDUM

**TO: COMMISSIONER KJELLANDER
COMMISSIONER SMITH
COMMISSIONER HANSEN
COMMISSION SECRETARY
COMMISSION STAFF**

FROM: DON HOWELL

DATE: JANUARY 28, 2005

**RE: IDAHO POWER'S APPLICATION FOR AUTHORITY TO IMPLEMENT A
RESIDENTIAL AIR CONDITIONER CYCLING PROGRAM, CASE
NO. IPC-E-04-27**

On November 15, 2004, Idaho Power filed an Application for authority to implement an expanded voluntary residential Air Conditioner Cycling Program ("AC Program" or "Program"). Idaho Power sought authority to modify and expand its two-year "pilot" AC Cycling Program that expired in October 2004. The Company requested that its Application be processed under Modified Procedure.

On December 20, 2004, the Commission issued its Notice requesting comments on the Company's AC Program Application. Two members of the public and Commission Staff filed comments in response to the Commission's Notice.

BACKGROUND

In March 2003, the Commission authorized Idaho Power to implement the pilot AC Program for residential customers in Boise and Meridian during the summer months. The purpose of the pilot program was for Idaho Power to evaluate the costs and benefits of reducing summer peak loads by cycling residential air conditioners. Reducing summer peaking loads could potentially reduce Idaho Power's overall capacity costs and could result in savings to customers.

Idaho Power experimented with two methods of controlling AC cycling: installing programmable thermostats and installing direct control equipment. To encourage participation in the pilot program, the Company provided \$10 monthly incentives and, in some cases, the programmable thermostats. Based upon the results of the pilot program, the Company now

desires to increase the number of participants and to make the program permanent with some modifications.

THE CURRENT APPLICATION

In its Application, the Company proposes to expand the reach of the voluntary program to all residential customers residing in Ada or Canyon Counties and in the Emmett area. Emmett was included because the Company has installed new meters with advanced meter reading (AMR) capabilities. By including Emmett in the Program, the Company will be able to evaluate economies of scale that may occur by coupling the AC program with the AMR capabilities. The Program would allow the Company to cycle air conditioners during the months of June, July and August.

Eligibility to participate in the Program would be determined by several factors including: a residential customer's energy usage, residential location, size of home, and the presence of a fully functional central air conditioner installed in compliance with the National Electric Code. Residential customers who rent or lease their homes must provide the Company written proof of the owner's permission to participate in the Program. Participating customers will receive a monetary incentive of \$7.00 per month as a credit on their bills beginning with July and ending with their September bills. To receive the incentive payment, eligible customers must begin participating in the Program no later than the 20th day of the month in order to receive an incentive payment for that initial month.

The Company's research indicates that the Treasure Valley experiences an average of about 20 days each summer when the ambient air temperature reaches at least 95 degrees. At an ambient air temperature of at least 95 degrees the average load reduction from AC cycling was 1.11 kW per participant. A cycling event may be up to four hours per day for any weekday during the three-month season. A cycling event may occur over a continuous four-hour period or may be segmented throughout the day at the Company's discretion to optimize available resources. Cycling events may total up to 40 hours each month and will not exceed a total of 120 hours during the three-month season.

Based upon the pilot program, the Company proposed to use direct AC control devices to control the AC units. Each residential participant will be permitted to temporarily "opt out" of the program one day per month after providing Idaho Power with advanced notice. Customers would be free to terminate the program at any time without penalty.

The Company anticipates full implementation of the AC Program within five years. During the first five years, the Company estimates that the annual Program costs will average approximately \$2.2 million. Once fully implemented, the Company estimates that the annual Program costs will be approximately \$1.5 million per year. The higher initial costs are attributable to the Company's purchase and installation of the direct load control devices and memory meters. The Company requests that it be permitted to recover the program costs from the Energy Efficiency Rider (Schedule 91).

The Company also noted that its Energy Efficiency Advisory Group supports implementation of the AC Program. The Company asserts that the AC Program will be cost-effective. In particular, the Company performed a benefit-cost analysis that resulted in a benefit-cost ratio of 1.07 by the tenth year of operation and a ratio of 1.42 over a 30-year period. The Company anticipates that the AC Program benefits are expected to exceed Program costs by the tenth year of operation.

THE COMMENTS

In response to the Commission's Notice of Modified Procedure, two members of the public and the Commission Staff submitted comments. One customer supported the Program. The other customer did not oppose the Program but noted that the AC Program would not solve the problem and suggested that evaporative cooling was a better solution. This latter customer noted that the "real problem" was that customers are not generally interested in conserving electricity until the price of electricity increases.

The Staff recommended that the Commission approve Idaho Power's Application. Staff noted that the Company's evaluation of the pilot program showed that AC cycling results in an average of less than two degrees increase inside participants' homes during the last hour of a cycling event. In addition, Staff noted that most participants' total electric usage during the month stayed the same or declined slightly.

Staff also observed that the Company estimates that 40,000 customers will participate in the Program by 2009. Based on an average load reduction of 1.11 kilowatts per participant when outside temperature is at least 95 degrees, the Staff calculated that 40,000 participants equates to 44.4 MW of peak load reduction. Based upon the Company's estimate of costs and the level of customer participation, Staff opined that this demand-side program offers a better alternative to meet customer load than purchasing a supply-side generation resource.

The Staff maintained that there is a sufficient balance in the Company's Energy Efficiency account to implement the AC Program. The Staff also noted that the Company has requested that its Energy Efficiency Rider be increased in Case No. IPC-E-04-24.

COMMISSION DECISION

1. Does the Commission desire to authorize the Company to implement its proposed AC Program and Tariff Schedule 81?
2. Does the Commission desire the Company to report on the cost effectiveness of the Program in the annual DSM report?
3. Anything else?



Don Howell

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