

PUBLIC UTILITY COMMISSION OF OREGON
STAFF REPORT
PUBLIC MEETING DATE: March 22, 2016

REGULAR _____ CONSENT X EFFECTIVE DATE March 31, 2016

DATE: March 14, 2016

TO: Public Utility Commission

FROM: Michael Breish MB

THROUGH: Jason Eisdorfer and Aster Adams *for*

SUBJECT: IDAHO POWER COMPANY: (Docket No. ADV 204/Advice No. 16-02)
Requests Modifications to Schedule 72 – Heating and Cooling Efficiency Program.

STAFF RECOMMENDATION:

Staff recommends the Commission allow Idaho Power Company's (Company or Idaho Power) Advice No. 16-02 to go into effect March 31, 2016.

ISSUE:

Whether the energy efficiency measure proposed by Idaho Power is cost effective and satisfies the Commission's criteria for energy efficiency programs.

APPLICABLE LAW:

Under ORS 757.205, energy utilities must file tariffs for services provided to retail customers.

OAR 860-027-0310 specifies that the Commission encourages energy utilities to acquire cost-effective conservation resources and authorizes energy utilities to apply for Commission approval of programs designed to promote the acquisition of cost-effective conservation resources.

OAR 860-027-0310 defines conservation as any reduction in electric power or natural gas consumption as the result of increase in efficiency of energy use, production, or distribution. "Cost-effective" relates an energy conservation measure's cost, life cycle, and the cost of alternative energy facilities. An energy utility's cost-effectiveness

calculations should be consistent with the utility's most recently acknowledged least-cost plan pursuant to Order No. 89-507.¹

Below are excerpts from OAR 860-027-0310(2) where the Commission's policies for evaluating conservation programs proposed by utilities are stated:

- Incentive:
 - Acquisition of least-cost resources should be the energy utility's most profitable course of action. An energy utility should have an incentive to acquire all least-cost resources, but it should not have an incentive to pursue conservation past the point at which it is no longer cost-effective.
 - The most important criterion for evaluating an incentive program is its effect on the energy utility's resource acquisition strategy.
 - An energy utility should have the incentive to acquire any resource at the minimum total cost.

- Impact
 - Incentive programs should be as consistent as possible with the Commission objective of promoting rate stability.

Commission Order No. 94-590 in Docket UM 551 specifies the following:

- The total resource cost test (TRC) must be used to determine if energy efficiency measures and programs are cost effective.²
- A utility should calculate cost savings and other non-energy benefits if they are significant and there is a reasonable and practical way for calculating them.³
- Utilities should offer incentives to end-users sufficient to meet or exceed acknowledged least-cost plan conservation targets.⁴

DISCUSSION AND ANALYSIS:

Background

On January 20, 2016, Idaho Power filed Advice No. 16-02 to add one additional measure to Schedule 72, Heating and Cooling Efficiency Program. Incentives offered under Idaho Power's Schedule 72 Heating and Cooling Efficiency Program are available

¹ OAR 860-027-0310(1)(c).

² Order No. 94-590 at 14 (UM 551).

³ Ibid., 15.

⁴ Ibid.

to residential customers whose homes have electric forced air heat or a ducted heat pump; the home must be an existing single family site built home. The program is designed “to acquire energy savings by offering cash incentives to residential customers in order to motivate them to purchase alternate forms of residential heating and cooling equipment and services that save energy.”⁵

Advice No. 16-02 modifies Schedule 72 by adding a measure to offer a smart thermostat measure to Schedule 72 that provides a \$75 financial incentive to eligible customers. In order to qualify for the incentive, a licensed contractor must install the smart thermostat per the requirements on the application form and worksheet form.⁶

The measure’s associated Utility Cost Test (UCT) and Total Resource Cost Test (TRC) ratios are as follows⁷:

Equipment	UCT	TRC
Smart Thermostat	2.34	1.00

The table above shows that the proposed smart thermostat measure under Schedule 72 is cost effective. Idaho Power states “the magnitude of electric savings for Idaho Power’s service territory under the proposed delivery mechanism at this time is uncertain.”⁸ Because of this, Idaho Power made the following conservative measures to develop the UCT and TRC:

- Measure Life: 10 years
- Incremental Participant Cost: \$175⁹
- Incentive: \$75
- Minimum Targeted Savings: 354 annual kWh

Idaho Power notes that approximately 10 impact evaluations regarding smart thermostats have been published, including those done for Energy Trust of Oregon and Sacramento Municipal Utility District. These studies demonstrate that, in general, smart thermostats can generate savings between five and 15 percent of heating use or about 750 to 1,000 kWh per year.¹⁰ Idaho Power’s most recent energy efficiency potential

⁵ Cover Letter, at page 1, Advice No. 16-02, January 20, 2016.

⁶ Ibid.

⁷ The UCT and TRC values do not include administration costs per Commission Order No. 94-590, section 10.

⁸ Cover Letter, at page 2, Advice No. 16-02, January 20, 2016.

⁹ Idaho Power notes the average cost of the baseline non-programmable/programmable thermostat is \$50).

¹⁰ Cover Letter, at page 2, Advice No. 16-02, January 20, 2016.

study “showed the average unit energy consumption for an electric furnace is 10,317 annual kWh.”¹¹ Idaho Power uses a conservative range of five to ten percent savings from smart thermostats, which produces a range of 516 to 1,031 kWh per year. The conservative estimate of 354 annual kWh safely falls within this estimated range.

Idaho Power will conduct an impact evaluation using a third party after the program has run for approximately two years and sufficient data has been acquired. This evaluation will determine kWh savings for both heating and cooling applications. Data from this evaluation will further inform cost-effectiveness analyses.

Staff concludes that the filing satisfies the Commission’s criteria for cost effectiveness and believes the proposed modification to the program and tariff is reasonable. Thus, Staff recommends the Commission approve the Company’s proposed changes.

PROPOSED COMMISSION MOTION:

Idaho Power’s Advice No. 16-02 be allowed to go into effect on March 31, 2016.

Ca4 – IPC Smart Thermostat

¹¹ Ibid.