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October 31, 2016

Public Utility Commission of Oregon Filing Center 201 High Street SE, Suite 100 P.O. Box 1088 Salem, Oregon 97301

RE: UM 1710, Idaho Power Company's Request for Cost-Effective Exceptions for

Specific Demand-Side Management Electric Measures and Programs

Attention Filing Center:

Public Utility Commission of Oregon Order No. 94-590, issued in UM 551, provides for the inclusion of non cost-effective measures in utility Demand-Side Management ("DSM") programs if those measures meet specific conditions. Idaho Power Company ("Idaho Power" or "Company"), after reviewing the impact of updated DSM alternate costs from the 2015 Integrated Resource Plan, approved by Order No. 16-160, issued April 28, 2016, concluded there are certain measures within its DSM program portfolio that are currently not cost-effective but yet meet these conditions. With this filing, Idaho Power is requesting approval of exceptions articulated in Order No. 94-590 for these measures so they may continue to be offered to Oregon customers through the Company's DSM program portfolio.

Idaho Power has determined that there are four DSM measures and one program that are currently not cost-effective and is seeking approval for exceptions for those measures and the program. Idaho Power is not requesting changes to any specific program tariffs. The Company will continue to evaluate the non-cost-effective measures and the impact on the program's cost-effectiveness to determine if these measures should be modified or removed from the program. Idaho Power will present possible program and/or measure modifications to the Energy Efficiency Advisory Group in order to seek input prior to proposing any changes to the program(s).

If you have any questions regarding this filing, please contact Regulatory Analyst Jill Simpson at (208) 388-2517 or jsimpson@idahopower.com.

Sincerely,

Lisa D. Nordstrom Lead Counsel

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Idaho Power Company's Cost-Effectiveness Exceptions Request for Specific Electric Measures and Programs October 31, 2016

I. BACKGROUND

In June 2015, Idaho Power Company ("Idaho Power or Company") filed its 2015 Integrated Resource Plan ("IRP") in LC 63 with the Public Utility Commission of Oregon ("Commission"). The IRP included updated electric Demand-Side Management ("DSM") alternate cost assumptions used to calculate the cost-effectiveness of Idaho Power's energy efficiency programs and measures. The IRP was acknowledged in Order No. 16-160, issued April 28, 2016.

Idaho Power completed reviewing the impacts of the updated DSM alternate cost assumptions from the IRP, electric savings, and participant costs to the cost-effectiveness of measures and programs within Idaho Power's DSM portfolio. For Idaho Power's commercial and industrial programs, the Company uses a technical reference manual developed by ADM Associates, Inc. as the primary source of savings and cost assumptions. For Idaho Power's irrigation program and many of the residential programs, the Company relies on the Regional Technical Forum ("RTF") as the primary source of savings and cost assumptions for each measure. When possible, the Company uses historical participant cost information gathered from past program participants rather than the regional cost assumptions from the RTF. The RTF meets monthly to review and provide comments on energy savings and costs for a variety of energy efficiency measures. For the purpose of this filling, the cost-effectiveness analyses incorporate energy savings and cost assumptions published by the RTF as of August 31, 2015. Occasionally, Idaho Power will use internal engineering estimates and calculations for savings and costs based on information gathered from previous projects or other sources.

This memo describes the actions Idaho Power is recommending for the commercial measures and the residential program that have been determined to be no longer cost-effective.

II. MEASURE GROUPING

In Order No. 94-590, the Commission outlines specific cost-effectiveness guidelines for energy efficiency measures and programs managed by program administrators. It is the expectation of the Commission that measures and programs pass both the Utility Cost ("UC") and Total Resource Cost ("TRC") tests. Measures and programs which do not pass these tests may be offered by the utility if they meet one or more of the following additional conditions specified by Section 13 of Order No. 94-590:

- A. The measure produces significant non-quantifiable non-energy benefits. In this case, the incentive payment should be set no greater than the CEL less the perceived value of bill savings, e.g., two years of bill savings.
- B. Inclusion of the measure will increase market acceptance and is expected to lead to reduced cost of the measure.
- C. The measure is included for consistency with other DSM programs in the region.
- D. Inclusion of the measure helps to increase participation in a cost-effective program.
- E. The package of measures cannot be changed frequently, and the measure will be cost-effective during the period the program is offered.
- F. The measure or package of measures is included in a pilot or research project intended to be offered to a limited number of customers.
- G. The measure is required by law or is consistent with Commission policy and/or direction.

Idaho Power is seeking approval from the Commission for four commercial measures and one residential program that do not pass the TRC test within the Company's commercial and residential program offerings. The measures were previously cost-effective, but due to updated savings, costs, and DSM alternate cost assumptions, the measures do not currently pass the TRC test.

Although some measures cited here have limited participation in Oregon, Idaho Power endeavors to keep consistency of the programs across its Idaho and Oregon service areas. The importance of offering consistent program offerings across the Idaho Power service areas cannot be overstated. Trade allies ("contractors/suppliers") serve Idaho Power customers in both states. Idaho contractors and professionals cross over to Oregon and vice versa. Offering different program designs would create confusion in the marketplace, could inhibit participation, and would add to administration costs. In addition, program infrastructure is designed to implement consistent programs across the service areas.

The four measures for which Idaho Power is requesting exceptions are all included in the Commercial & Industrial Energy Efficiency Program which is cost-effective. The Company has reviewed the measures and believes the four measures meet at least one of the conditions identified in Order No. 94-590. The Company's explanation of how each measure qualifies for an exception under Order No. 94-590 is outlined below. For the one program, while the Company believes the program qualifies for an exception under Order No. 94-590, the Company plans to address the cost-effectiveness issues and to propose modifications to program design.

The Company has divided this request into two categories:

- Measures that are no longer cost-effective that meet an exception criteria in Order No. 94-590
- Program that is no longer cost-effective that meets an exception criteria in Order No. 94-590

III. MEASURES THAT ARE NO LONGER COST-EFFECTIVE THAT MEET AN EXCEPTION CRITERIA IN ORDER NO. 94-590:

- 1. Evaporative Pre-Coolers
- 2. Wall Insulation R2.5 to R19
- 3. Standby Generator Engine Block Heater < 3 kilowatts ("kW")
- 4. Floating Suction Pressure Controller

1. Evaporative Pre-Coolers

For evaporative pre-coolers, the UC Benefit Cost Ratio ("BCR") is 8.23 and the TRC BCR is 0.95. Idaho Power has not paid an incentive on evaporative pre-cooler projects to date in Oregon; however, there may be opportunity to do so in the future.

Evaporative pre-coolers provide energy savings by lowering the temperature of the air that enters the condenser which increases the efficiency of the compressor. The measure is also offered in Idaho Power's Idaho service area and keeping this measure in Oregon could increase participation in a cost-effective program.

Additionally, Rocky Mountain Power ("RMP") in Idaho offers incentives for evaporative precoolers.

Idaho Power recommends that evaporative pre-coolers remain in the Commercial & Industrial Energy Efficiency Program. The measure is included for consistency with other DSM programs in the region, and inclusion of the measure helps to increase participation in a cost-effective program. This is consistent with Order No. 94-590 conditions C and D.

- C: The measure is included for consistency with other DSM programs in the region.
- D: Inclusion of the measure helps to increase participation in a cost-effective program.

2. Wall Insulation – R2.5 to R19

Idaho Power received a cost-effectiveness exception for wall insulation from R2.5 to R11 under Advice No. 14-06. Wall insulation from R2.5 to R11 currently has a UC BCR of 1.28 and TRC BCR of 0.77. The other wall insulation measure from R2.5 to R19 included in the Commercial & Industrial Energy Efficiency Program was previously cost-effective; however, with the application of the 2015 DSM alternate costs, it now has a UC BCR of 1.07 and TRC BCR of 0.89.

The measure has non-quantifiable non-energy benefits that are not included in the costeffectiveness analysis. Idaho Power has not incented on wall insulation projects in Oregon but may have the opportunity to do so in the future. Inclusion of the measure may increase participation in the program.

Avista, Energy Trust of Oregon ("ETO"), and RMP offer incentives for wall insulation.

Idaho Power recommends that wall insulation from R2.5 to R19 remain in the Commercial & Industrial Energy Efficiency Program. The measure produces significant non-quantifiable non-energy benefits, is included for consistency with other DSM programs in the region, and inclusion of the measure helps to increase participation in a cost-effective program. This is consistent with Order No. 94-590 conditions A, C, and D.

- A: The measure produces significant non-quantifiable non-energy benefits.
- C: The measure is included for consistency with other DSM programs in the region.
- D: Inclusion of the measure helps to increase participation in a cost-effective program

3. Standby Generator Engine Block Heater < 3 kW

Standby generator engine block heaters that are < 3 kW have a UC BCR of 6.07 and a TRC BCR of 0.94. Standby generator engine block heaters that are > 3 kW remain cost-effective with a UC BCR of 4.15 and TRC BCR of 2.01.

This is a new measure that was added to the Commercial & Industrial Energy Efficiency Program offering in 2016 and Idaho Power has not paid any incentives to Oregon participants to date. The costs used in the analysis came from Bonneville Power Administration ("BPA"); however, other information from the California Public Utilities Commission Database for Energy Efficiency Resources indicate that the actual install costs may be lower for the smaller units, which would increase the cost-effectiveness of the measure. The Company will continue to monitor this measure and seek to refine the assumptions within the cost-effectiveness analysis.

Avista, BPA, and Tacoma Power offer incentives for engine block heaters.

Idaho Power recommends that standby generator engine block heaters that are < 3 kW remain in the Commercial & Industrial Energy Efficiency Program. This measure is included for consistency with other DSM programs in the region and inclusion of the measure helps to

increase participation in a cost-effective program. This is consistent with Order No. 94-590 conditions C and D.

- C: The measure is included for consistency with other DSM programs in the region.
- D: Inclusion of the measure helps to increase participation in a cost-effective program.

4. Floating Suction Pressure Controller

Floating suction pressure controllers have a UC BCR of 4.11 and TRC BCR of 0.95. A floating suction pressure controller resets refrigeration system target suction temperature based on refrigerated display case or walk-in temperature, rather than operating at a fixed suction temperature set-point. This helps reduce compressor energy consumption and overall runtime. The measure has not had any participants in Oregon to date though inclusion of the measure may increase participation in other grocery measures offered in the Commercial & Industrial Energy Efficiency Program.

The measure is also part of the EnergySmart Grocer Program that is offered by utilities throughout the region. ETO, Puget Sound Energy, Snohomish Public Utility District, and Tacoma Power offer incentives for floating suction pressure controllers.

Idaho Power recommends that floating suction pressure controllers remain in the Commercial & Industrial Energy Efficiency Program. The measure is included for consistency with other DSM programs in the region, and inclusion of the measure helps to increase participation in a cost-effective program. This is consistent with Order No. 94-590 conditions C and D.

- C: The measure is included for consistency with other DSM programs in the region.
- D: Inclusion of the measure helps to increase participation in a cost-effective program.

IV. PROGRAM THAT IS NO LONGER COST-EFFECITIVE THAT MEETS AN EXCEPTION CRITERIA IN ORDER NO. 94-590:

1. <u>Heating & Cooling Efficiency Program</u>

The Heating & Cooling Efficiency Program provides incentives to residential customers for the purchase and proper installation of qualified heating and cooling equipment and services. The Heating & Cooling Efficiency Program is expected to have a UC BCR of 1.62 and TRC BCR of 0.80.

Energy saving measures provided in this program include the following:

- conversions and upgrades to air-source heat pumps
- installations of open loop water-source heat pumps
- ductless heat pumps ("DHP")
- evaporative coolers
- duct sealing
- whole house fans
- electronically commutated motors
- smart thermostats

Under Order No. 15-200, Idaho Power has received a cost-effectiveness exception for air-source heat pump conversions, open loop water-source heat pumps, and ductless heat pumps.

DHPs are the main driver that is lowering the cost-effectiveness of the Heating & Cooling Efficiency Program. For 2017, Idaho Power is exploring options to modify the program to increase its overall cost-effectiveness.

The RTF recently updated the savings assumptions for air-source heat pumps. The RTF breaks down savings based on a combination of the previous heating and cooling equipment source and weather zone. In the most recent update, the RTF further broke down the savings based on the insulation level within the home. While air-source heat pump conversions are expected to be cost-effective as a whole, some weather zone combinations with certain insulation levels may not be cost-effective. In 2016, Idaho Power has processed incentives for four air-source heat pump conversions in Oregon. The measure is also offered in the Company's Idaho service area. Excluding a heating and cooling zone in one state while including it in the other could cause confusion and dissatisfaction with the program for both customers and participating heating, ventilation, air conditioning (HVAC) contractors. Additionally, other utilities such as Avista and RMP also offer incentives for air-source heat pumps.

Open loop water-source heat pumps produce significant energy savings; however, the cost to purchase and install these heat pumps varies significantly for each customer due to site differences and contractor installation costs. While Idaho Power has not incented any open loop water-source heat pumps in Oregon, the Company wishes to continue to offer this measure to its Oregon customers. Open loop water-source heat pumps are a subset of geothermal heat pumps. Geothermal heat pumps are included in BPA's and RMP's programs. To remove this measure could cause customer and contractor confusion and dissatisfaction.

The ductless heat pumps continue to not be cost-effective under the TRC BCR. Idaho Power joined other utilities in the region to offer DHP pilots in partnership with the Northwest Energy Efficiency Alliance ("NEEA"). NEEA and the RTF have spent the past several years researching the electric savings and non-energy benefits of the DHPs installed in the region. NEEA and the region are working to bring down the cost of the DHPs which will improve the measure's cost-effectiveness.

Idaho Power recommends that the Heating & Cooling Efficiency Program continue to be offered in its Oregon service area. The measures within the program produce significant non-quantifiable non-energy benefits and are included for consistency with other DSM programs in the region. This is consistent with Order No. 94-590 conditions A and C.

- A: The measure produces significant non-quantifiable non-energy benefits.
- C: The measure is included for consistency with other DSM programs in the region.

V. SUMMARY

Idaho Power is requesting authority to continue offering the following non-cost-effective electric measures that meet an exception criteria in Order No. 94-590:

- 1. Evaporative Pre-Coolers
- 2. Wall Insulation R2.5 to R19
- 3. Standby Generator Engine Block Heater < 3 kW
- 4. Floating Suction Pressure Controller

Idaho Power is requesting authority to continue offering the following non-cost-effective program that meets an exception criteria in Order No. 94-590.

1. Heating & Cooling Efficiency Program