ITEM NO. CA2

PUBLIC UTILITY COMMISSION OF OREGON
STAFF REPORT
PUBLIC MEETING DATE: November 12, 2014

REGULAR ____ **CONSENT** X **EFFECTIVE DATE** November 13, 2014

DATE: October 28, 2014

TO: Public Utility Commission

FROM: Paul Rossow PR

THROUGH: Jason Eisdorfer and Aster Adams

SUBJECT: IDAHO POWER COMPANY: (Advice No. 14-10) Modifies Schedule 83, Building Efficiency Program.

STAFF RECOMMENDATION:

Staff recommends the Commission allow Idaho Power Company (IPC or Company) Schedule 83 tariff to go into effect November 13, 2014.

DISCUSSION:

On September 30, 2014, IPC filed Advice No. 14-10 proposing numerous tariff revisions to Schedule 83, Building Efficiency Program, to be effective November 13, 2014. The filing was made in accordance with ORS 757.205, Filing Schedules with the Commission.

The Building Efficiency Program (Program) provides incentives to cover a share of the cost of designing and building energy efficiency features into commercial construction projects. During 2013, the Program claimed 10,988,934 kilowatt-hours of annual energy savings. In 2013, IPC did not claim any annual energy savings for the Program in its Oregon service area.

The filing modifications align the overall Program offering with current savings and cost data provided by third-party consultant, ADM Associates Inc. (ADM). Using information from this source, IPC conducted an economic analysis of existing energy-efficient activities or measures offered under the Program. Based on this analysis, it was determined that the Company should make modifications to a number of measures offered under the Program.

The Company proposes the following modifications to Schedule 83.

Incentive Structure:

- Delete unnecessary language regarding the eligibility requirement for projects to be started after January 1, 2006, because this requirement is no longer applicable.
- Provide a professional assistance incentive to a third-party architect or engineer equal to 10 percent of the Program participant's total incentive amount up to $2,500.00.

Lighting:

- Increase Interior Light Load Reduction Part A incentive from $0.05 to $0.10 per square foot with a lighting power density at least 10.0 to 19.9 percent below the Oregon Energy Efficiency Specialty Code.
- Increase Interior Light Load Reduction Part B incentive from $0.15 to $0.20 per square foot with a lighting power density at least 20.0 to 29.9 percent below the Oregon Energy Efficiency Specialty Code.
- Add Interior Light Load Reduction Part C incentive at $0.30 per square foot with a lighting power density equal to or greater than 30 percent below the Oregon Energy Efficiency Specialty Code.
- Add a non-standard interior lighting incentive for projects that are at least 60 percent below Oregon Energy Efficiency Specialty Code and/or has high operating hours can receive an incentive of $0.18 per kilowatt-hour saved, annually up to 100 percent of the incremental cost between a base and efficient lighting system.
- Remove redundant language from each of the Daylight Photo Controls and the Occupancy Sensors measures regarding non-eligibility. This language is already present in the Incentive Structure section.

Air Conditioning (HVAC) proposed modifications:

- Outline new minimum efficiency requirements and incentive levels under the Efficient Air-cooled Air Conditioner, Heat Pump, and Variable Refrigerant Flow unit measure previously referred to as Premium Efficiency HVAC units.
- Increase incentives for the Efficient Chiller measure from $20.00 to $40.00 per ton for water-cooled chillers and $80.00 per ton for air-cooled chillers.
- Remove redundant language from the Air Side Economizer measure regarding non-eligibility. This language is already present in the Incentive Structure section.
- Add Direct Evaporative Cooler incentive at $200.00 per ton.

Building Shell:

- Add clarifying language to the Reflective Roof Treatment measure to improve customer understanding of the requirements.
- Remove High Performing Windows and Skylights based on savings and cost effectiveness analysis.

Energy Management Control Systems:

- Revise the Energy Management Control System measure incentive level based on the tonnage of cooling controlled by the system and the energy efficiency strategies incorporated. Modify the current measure incentive of $0.30 per square foot to the proposed incentive structure of $70.00 per ton for Part A, $80.00 per ton for Part B, $90.00 per ton for Part C, and $100.00 per ton for part D.
- Add Guest Room Energy Management System controls incentive at $50.00 per ton of controlled cooling.
- Revise Variable Speed Drives incentive to include HVAC Variable Speed Drives only. Modify the current $60.00 incentive to include a Part A incentive of $60.00 per horsepower for chilled water pumps and cooling tower fans, and a Part B incentive of $100.00 per horsepower for supply fans, return fans, outside air fans, make-up air fans, and hot water pumps.
- Remove the Demand Controlled Ventilation measure as a standalone measure based on updated savings. This existing measure is still represented in the program as an option in the Energy Management Control System measure.

Appliances with Electric Water Heating:

- The Company's economic analysis revealed kWh savings, measure cost, and specification for three new cost-effective measures. The proposed additions are as follow:
    - Add Efficient Laundry Machines (Electric) at $125.00 per unit.
    - Add Efficient Undercounter Dishwashers (Electric) at $200.00 per unit.
    - Add Efficient Commercial Dishwashers (Electric) at $500.00 per unit.

Refrigeration:

- The Company's economic analysis revealed kWh savings, measure cost, and specification for three new cost-effective measures. The proposed additions are as follow:
    - Add Refrigeration Head Pressure Controls at $40.00 per horsepower.
    - Add Refrigeration Floating Suction Controls at $10.00 per horsepower.
    - Add Efficient Refrigeration Condensers at $20.00 per ton of refrigeration.

Order No. 94-590's Measure Exception Criteria

IPC follows Oregon Public Utility Commission (PUC) guidelines for cost effectiveness established primarily in Order No. 94-590. As such, IPC has been directed to only offer incentives to efficiency projects which pass both the utility and total resource cost (TRC) effectiveness tests.[1] A measure which does not pass the tests may be included in the programs if it meets one or more of the following criteria set forth in Guideline 13 on pages 18-19 of Order No. 94-590.

A. The measure produces significant non-quantifiable non energy benefits. In this case, the incentive payment should be set at no greater than the cost effective limit (defined as present value of avoided costs plus 10 percent) 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 Demand-Side Management 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

In addition to the above changes, the Company is seeking approval from the PUC for three non-cost-effective measures that do not pass the TRC test within Easy Upgrades. The measures were previously cost-effective, but due to updated savings, costs, and Demand-Side Management (DSM) alternative cost assumptions, the measures do not pass the TRC test. Although some measures cited here have limited participation in Oregon, IPC endeavors to keep consistency of the Program across its Idaho and Oregon jurisdictions. The importance of offering consistent incentives across the IPC jurisdictions cannot be overstated. Trade allies (Contractors) work both states when selling retrofit projects. Idaho Contractors cross over to Oregon and vice versa. Offering two separate program designs would create confusion in the marketplace and could inhibit participation. In addition, program infrastructure is designed to implement consistent programs across jurisdictions.

[1] Guideline 12 set forth in Order No. 94-590 discusses use of the utility and total resource cost effectiveness tests. *See* Order No. 94-590 at 14-18.

Staff has reviewed the Company's cost effectiveness calculations and verified those measures that did not reach the benefit/cost ratio of one or greater level for the TRC test and the utility cost (UC) test are acceptable for removal. For those non cost effectiveness measures that remain in the Program, the Company has identified the measures as an allowable exception in Docket No. UM 551. Savings estimates for many non-lighting measures come from a 2014 updated Technical Resource Manual (TRM) developed by ADM for the Program.

Measures

Appendix A show's the benefit cost ratios and savings for each measure for which exceptions are being requested. The appendix also lists which UM 551 exception criteria IPC believes applies to each measure.

Listed below are the Company's requested exceptions for non-cost-effective measures.

1. Daylight Photo Controls

This measure has a UC benefit cost ratio (BCR) of 3.03 and a TRC BCR of 0.83. In 2013, IPC did not incent any projects with this measure in Oregon, but there may be future projects that could include the measure. Most lighting projects incented consist of several measures and the project is cost-effective when reviewed as a whole. Not incenting select measures within a project can have a negative impact by discouraging customers from pursuing cost-effective lighting projects.

IPC proposes to continue offering this measure due to the significant non-quantifiable non-energy benefits and inclusion of this measure helps to increase participation in cost-effective programs. This is consistent with Order No. 94-590 exceptions A and D.

2. 0-25 ton air conditioning (AC) units that meet Consortium for Energy Efficiency CEE[2] Tier 2

Within the 0-25 ton AC units, there are some sizes that pass cost-effectiveness and some that are no longer cost-effective from a TRC perspective. This measure has a UC BCR of 1.01 and a TRC BCR of 0.95. IPC did not incent any Oregon projects with this measure in 2013; however, there may be opportunity to do so in the future. The 0-25 ton AC units that meet CEE Tier 1 are cost-effective, but there is an opportunity to increase the energy savings by encouraging the customer to go to CEE Tier 2. IPC has

[2] CEE tier ratings are stricter than Energy Star certification (the Federal standards). Tier 1 = 20 percent more efficient than Federal standards; Tier 2 = 25 percent more efficient than Federal standards; Tier 3 = 30 percent more efficient than Federal standards.

an opportunity to help increase market acceptance of CEE Tier 2 AC units, which may bring the costs down for these units and bring them closer to cost-effectiveness.

IPC proposes that inclusion of this non-lighting measure will increase market acceptance and is expected to lead to reduced cost of the measure and increase participation in a cost-effective program. This is consistent with Order No. 94-590 exceptions B and D.

3. 0-25 ton (Heat Pump) HP units that meet CEE Tier 1

Within the 0-25 ton HP units, there are some sizes that pass cost-effectiveness and some that are no longer cost-effective from a TRC perspective. This measure has a UC BCR of 1.01 and a TRC BCR of 0.95. IPC did not incent any Oregon projects with this measure in 2013; however, there may be opportunity to do so in the future. Also, the HP savings are based on cooling only savings to allow participation from both gas and electrically heated customers. The Company chose not to limit participation within this measure based on the customer's heating source to reduce customer confusion and dissatisfaction in the Program. However, if savings for customers with electric heat were to be included, the heat pumps would be cost-effective.

IPC proposes that this measure be included in the program offering to encourage participation in a cost-effective program. This measure is also included in other programs in the region. This is consistent with Order No. 94-590 exceptions C and D.

Staff conducted a review of the Company's filing by reviewing the data submitted by IPC and issuing data requests. Staff's review finds the proposed tariff modifications and non-cost-effective electric measures as exceptions to the cost-effectiveness test to be acceptable.

PROPOSED COMMISSION MOTION:

IPC's revised Schedule 83 tariffs as described in Advice 14-10 go into effect on November 13, 2014.

Appendix A: The non cost-effective measures

Measure Name	Measure Description	Replacing	UCT Benefit/ Cost Ratio (w/ Admin)	TRC Benefit/ Cost Ratio (w/ Admin)	UC Benefit/ Cost Ratio (w/o Admin per UM-551 section 10)	TRC Benefit/Cost Ratio (w/o Admin per UM-551 section 10)	2013 Oregon Savings (annual kWh)	% of 2013 Program Oregon Savings	Future Resource Potential	Proposed Action	Additional IPC comments
Lighting	Daylight Photo Controls	Code standards	2.70	0.81	3.03	0.83	0	0.00%	low	Continue through exception: A - The measure produces significant non-quantifiable non-energy benefits; D - Inclusion of the measure helps increase participation in a cost-effective program.	No Oregon projects with this measure (or similar) in 2013.
Air Conditioning (AC) Units	0-5 ton AC unit that meets CEE Tier 2 6-11 ton AC unit that meets CEE Tier 2 12-19 ton AC unit that meets CEE Tier 2 20-25 ton AC unit that meets CEE Tier 2	Code standards	1.29	0.85	1.34	0.87	0	0.00%	low	Continue through exception: B -Inclusion of the measure will increase market acceptance and is expected to lead to reduced cost of the measure; D - Inclusion of the measure helps increase participation in a cost-effective program.	
Heat Pump (HP) units	0-5 ton HP unit that meets CEE Tier 1 6-11 ton HP unit that meets CEE Tier 1 12-19 ton HP unit that meets CEE Tier 1 20-25 ton HP unit that meets CEE Tier 1	Code standards	0.98	0.93	1.01	0.95	0	0.00%	low	Continue through exception: C - Consistency with other programs in the region; D - Inclusion of the measure helps increase participation in a cost-effective program.	No Oregon projects with this measure (or similar) in 2013. AC and HP measures combined as one measure in 2013.