ITEM NO. CA20

PUBLIC UTILITY COMMISSION OF OREGON
STAFF REPORT
PUBLIC MEETING DATE: December 18, 2018

REGULAR ____ **CONSENT** X **EFFECTIVE DATE** December 19, 2018

DATE: December 6, 2018

TO: Public Utility Commission

FROM: Paul Rossow PR

THROUGH: Jason Eisdorfer and JP Batmale JPB

SUBJECT: IDAHO POWER COMPANY: (Docket No. UM 1710) Request for cost-effective exceptions specific Demand-Side Management electric Measures and Programs.

STAFF RECOMMENDATION:

Staff recommends the Commission grant Idaho Power Company's (Idaho Power or Company) requested cost-effectiveness exceptions for the specific electric measures within its Irrigation Efficiency Rewards Program (Irrigation Efficiency Rewards Program or Program) described below.

DISCUSSION:

Issue

The Commission requires that demand side (DSM) measures offered in Oregon be cost-effective unless one or more of specific exemptions to this cost-effectiveness requirement are applicable. The issue addressed in this memorandum is whether the Commission should allow Idaho Power to offer three non cost-effective DSM measures because they satisfy one or more of the criteria for exemption from the cost-effectiveness requirement.

Applicable Rule or Law

Order No. 94-590 issued in Docket No. UM 551 provides for the inclusion of non cost-effective measures in utility Demand-Side management (DSM) programs if those

measures meet specific conditions. The available conditions to qualify for an exception are:[1]

A. The measure produces significant non-quantifiable non-energy benefits. In this case, the incentive payment should be set no greater than the cost-effectiveness limit 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.

Analysis

Background and summary
On November 16, 2018, Idaho Power filed a request in Docket No. UM 1710 for cost-effective exceptions for three demand-side management (DSM) measures. The measures are available to irrigation customers. The Company is not requesting changes to any specific program tariffs.

For Irrigation Efficiency Rewards program, the Company relies on the Regional Technical Forum (RTF) as the primary resource of savings and cost assumptions for each measure. Savings and cost assumptions for DSM measures and programs, including those offered by Idaho Power, are periodically updated by the RTF. Because of revised values, measures and program can become non cost-effective.

[1] For the remainder of these comments reference to a specific condition from Order No. 94-590 will be cited by its letter, for example, "Condition A." The conditions are set forth in full in Order No. 94-590 at page 18.

The three measures for which Idaho Power requests exceptions to the cost-effectiveness rule are all included in the Irrigation Efficiency Rewards Program, which overall is cost-effective. Idaho Power seeks to continue to offer the three measures in Oregon in order to maintain consistent programs in Oregon and Idaho, and also because the availability of these measures maintains customer satisfaction in the overall program. Idaho Power asserts that having consistent DSM Programs in Idaho and Oregon is important for several reasons. Idaho Power explains that Customers in Idaho Power's irrigation Program often have service locations in both states. "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."[2]

In March of 2018, the RTF updated their irrigation hardware measure analysis significantly from prior versions, resulting in a reduction of savings between 34 to 94 percent for some irrigation measures. With the irrigation updates, most of the measures within the Program remain cost-effective with the exception of the (1) rebuilt or new brass impact sprinklers, (2) new complete low pressure pivot package, and (3) the new wheel line hubs.

According to the Company, the major assumption driving the measure savings change in the Program involves the calculation of the leakage per hardware item, which caused savings to decrease nearly 80 percent on average for several irrigation hardware types. The change in the leakage assumption caused the rebuilt or new brass impact sprinklers and the new wheel line hubs to become non-cost-effective. Additionally, for three of the measures in the Program, the RTF updated the average flow rate for each device which caused nozzle savings to decline by 34 percent and the new complete low-pressure center pivot package to decline by 75 percent, causing the measure to become non-cost-effective.

With respect to the Program, Idaho Power notes that it has requested that the RTF reconvene the irrigation subcommittee in 2019 and re-examine the assumptions such as leakage and flow rate, as well as the calculation methodology behind these irrigation measures. The Company anticipates a new RTF workbook will be approved and will be in use for the 2020 irrigation season. Once the new workbook is approved, Idaho Power will re-assess the updated savings within the Program and will determine if a cost-effectiveness exception for any of the measures contained within the Program will continue to be necessary or if modifications to measures offered in the Program are appropriate. In the meantime, Idaho Power believes the program meets two of the

[2] UM 1710, Idaho Power Company's Request for Cost-Effective Exceptions for Specific Demand-Side Management Electric Measures and Programs, p. 4.

exceptions to cost-effectiveness – consistency with other programs and non-quantifiable non-energy benefits.[3]

The Company's Cost-Effective Exception Requests

Rebuilt or New Brass Impact Sprinklers
Staff agrees with Idaho Power that the rebuilt or new impact sprinkler measure meets Conditions A (non-quantifiable benefits), C (consistency), and D (increase participation). Idaho Power has paid an incentive on rebuilt or new impact sprinkler projects in Oregon, Staff acknowledges the Company's intention to continue offering the measure to their Oregon customers.

New Complete Low-Pressure Pivot Package (per sprinkler head, nozzle, and regulator)
Staff agrees with Idaho Power that the *low-pressure pivot package* included in the Irrigation Efficiency Rewards Program meets Conditions A (non-quantifiable benefits), C (program consistency), and D (increase participation). Idaho Power has incented *low-pressure pivot package* projects in Oregon, Staff acknowledges the Company's intention to continue offering the measure to their Oregon customers.

New Wheel Line Hub (on Thunderbird Wheel Lines)
Staff agrees with Idaho Power that the *New Wheel Line Hub* meets Conditions A (non-quantifiable benefits), Conditions C (program consistency), and D (increase participation). Although Idaho Power has not paid an incentive under this measure, Staff acknowledges the Company's intention to continue offering the measure to their Oregon customers.

[3] Ibid. pp. 4-5.

The table below reflects each measure's incentive, participation count, and weighted average cost per measure.

	Measures		
Years	**New or rebuilt impact or rotating type sprinklers**	**New complete low-pressure pivot package (per sprinkler head, nozzle and regulator)**	**New wheel line hubs (on Thunderbird wheel lines)**
Incentive 2017 - 2018	$2.75 per sprinkler[4]	$8.00 per sprinkler head, nozzle, and low pressure regulator package	$12.00 per hub
2017 Incentive Count	342	1,062	-
2017 Weighted Avg. Cost per Measure	$12.54	$24.97	$41.78
2018 YTD Incentive Count [5]	23	1,338	-
2018 YTD Weighted Avg. Cost per Measure	$12.34	$26.11	$42.18

Below is a table containing the measures' respective utility cost test (UCT) ratio and the total resource cost (TRC) test ratio:

Measure Name	UCT	TRC
Rebuilt or new brass impact sprinklers	0.43	0.81
New complete low pressure pivot package (per sprinkler head, nozzle and regulator)	1.09	0.73
New wheel line hubs (on Thunderbird wheel lines)	1.78	0.69

[4] Incentive Restriction: Eligible for a maximum incentive amount equal to either the lesser of the stated incentive amount or 50 percent of the purchase invoice cost for each successfully installed measure.
[5] 2018 year to date is for the period 1/1/2018 through 11/30/2018.

Conclusion

Staff conducted a review of the Company's filing by reviewing the data submitted by Idaho Power and issuing information requests. Staff's review finds the proposed modifications to the non-cost-effective electric measures within the Irrigation Efficiency Rewards Program as exceptions to the cost-effectiveness test to be acceptable.

PROPOSED COMMISSION MOTION:

Idaho Power Company's request for cost-effective exceptions for specific DSM measures be granted.