

**PUBLIC UTILITY COMMISSION OF OREGON  
STAFF REPORT  
PUBLIC MEETING DATE: June 1, 2021**

REGULAR  CONSENT  EFFECTIVE DATE June 15, 2021

**DATE:** May 24, 2021

**TO:** Public Utility Commission

**FROM:** Nick Sayen

**THROUGH:** Bryan Conway, JP Batmale, and Sarah Hall **SIGNED**

**SUBJECT:** IDAHO POWER COMPANY:  
(Docket No. ADV 1257/Advice No. 21-03)  
Proposes changes to prescriptive retrofit and new construction measures,  
and two housekeeping items, in Schedule 89, Commercial and Industrial  
Energy Efficiency.

**STAFF RECOMMENDATION:**

Staff recommends that the Public Utility Commission of Oregon (Commission) approve Idaho Power Company's (the Company) Advice No. 21-03, proposing changes to Schedule 89, the Commercial and Industrial Energy Efficiency Program (C&I Program), effective with service on and after June 15, 2021.

**DISCUSSION:**

Issue

Whether the Commission should approve Idaho Power Company's advice filing proposing changes to prescriptive retrofit and new construction measures, and two housekeeping items, in Schedule 89.

Applicable Rule or Law

Under ORS 757.210 the Commission may approve tariff changes if they are deemed to be fair, just and reasonable. Tariff revisions may be made by filing revised sheets with the information required under the Commission's administrative rules, including OAR 860-022-0025.

OAR 860-022-0025(2) specifically requires that each energy utility changing existing tariffs or schedules must include in its filing a statement plainly indicating the increase, decrease, or other change made with the filing, the number of customers affected by the proposed change and the resulting change in annual revenue; and the reasons or grounds relied upon in support of the proposed change.

According to ORS 757.220 and OAR 860-022-0015, filings that propose any change in rates, tolls, charges, rules, or regulations must be filed with the Commission at least 30 days before the effective date of the change.

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

Under OAR 860-027-0310(2), the Commission reviews proposed programs and modifications to programs to consider whether the program (1) includes cost-effective measures, incents cost minimization, and is not easily manipulated by the utility; (2) is predictable; (3) is simple; and (4) fairly allocates risks and rewards between shareholders and ratepayers, minimizes cross-subsidization by non-participants, and does not impose rate pressure. In developing cost-effective conservation programs, energy utilities may balance the emphasis given to each policy listed above. Greater focus on one policy may come at the expense of another policy, if the whole proposal is reasonable.

## Analysis

### *Background*

The C&I Program is an incentive-based efficiency program designed to help reduce the costs of installing energy efficiency measures in existing and new commercial and industrial buildings. The C&I Program provides incentives for prescriptive measures (both lighting and non-lighting), as well as a custom rebate path for projects that fall outside the prescriptive offerings. In 2020, Idaho Power claimed approximately 130 million kilowatt-hours (kWh) of annual savings for the program on a system-wide basis, and just over 4 million kWh of annual savings in Oregon.<sup>1</sup>

In this memo, Staff describes the scope of the Company's proposed changes, the reason for the changes, their impacts, and Staff's evaluation. The memo concludes with Staff's recommendation. Details of the changes, and Staff's evaluation, appear in an attachment to the memo.

---

<sup>1</sup> See Initial Utility Filing, Docket No. ADV 1257, <https://edocs.puc.state.or.us/efdocs/UAA/uua123215.pdf>.

### *Scope of Proposed Changes*

Schedule 89 presents information on prescriptive measures structured around 13 tables. The tables are organized by various technologies, and present the measures, the incentives, and eligibility requirements. Tables of measures for existing buildings (retrofits) are grouped together first, followed by those for new buildings (or major renovations). For example, Table 2 is for HVAC and HVAC control equipment in existing buildings. Table 12 is for refrigeration equipment in new buildings. Information on custom rebates is presented in a separate section following these tables.

The Company proposes over 90 changes to prescriptive measure categories and individual measures, affecting 11 of the 13 tables. The changes consist of removing an equipment category or measure, reducing a measure incentive amount, modifying an existing measure, increasing a measure incentive, or adding a new equipment category or measure. In addition, the filing proposes two housekeeping changes to custom rebates.

### *Reasons for Proposed Changes*

There have been three recent changes to policies, assumptions, and parameters that serve as inputs in determining cost-effectiveness of the Company's efficiency programs, including the C&I Program. First, the Company updated its Technical Reference Manual (TRM). This was undertaken to comply with the 2018 International Energy Conservation Code that will go into effect in 2021. Work to update the TRM was conducted throughout 2020 and was completed in March 2021. Changes to the TRM included updating all measures to comply with the 2018 Code requirements, as well as reviewing all measures for the most current information regarding energy savings and incremental costs. The TRM was originally adopted in 2014; the most recent update was in October 2018.<sup>2</sup>

The second recent change consisted of updates to Unit Energy Savings Measures, and Standard Protocols by the Northwest Power and Conservation Council's Regional Technical Forum (RTF).<sup>3</sup> The RTF, through regular processes, makes these updates for various energy efficiency measures, and a number of the updates impacted measures included in the C&I Program.

---

<sup>2</sup> See Appendix A, Technical Reference Manual 3.0, Prepared for Idaho Power Company, March 5th, 2021, <https://docs.idahopower.com/pdfs/EnergyEfficiency/Reports/2020TRM.pdf>.

<sup>3</sup> See <https://rtf.nwccouncil.org/work-products>, <https://rtf.nwccouncil.org/measures>, and <https://rtf.nwccouncil.org/standard-protocols>.

Third, the Company updated implementation of its Demand-Side Management (DSM) alternate costs.<sup>4</sup> The Company's cost-effectiveness models were refreshed to reflect the new information from these three updates, and the resulting cost-effectiveness calculations have led to many of the proposed changes in this filing.

The Company proposes to remove several measures from the C&I Program that previously received a cost-effectiveness exception under Advice No. 18-08. After reviewing these measures with updated savings and cost assumptions from the TRM and RTF, the Company has found it unlikely that these measures will become cost-effective in the future. As a result, Idaho Power is proposing to remove these measures from the C&I Program.

In addition, the Company proposes two housekeeping changes, the first of which corrects an error from Advice No. 19-11 (approved by the Commission on December 17, 2019) in which the Company's filing referenced a proposed change, while the necessary and corresponding edit in the submitted tariff sheet was erroneously omitted. The second proposed housekeeping change clarifies language used in the calculation of energy savings, specifying the time period for which the calculation is applicable.

#### *Impact of Proposed Changes and Staff's Evaluation*

Staff's evaluation of the proposed changes begins with those grounded in RTF updates and moves next to changes which are increases to existing measure incentives, or additions of new measures. Finally, Staff's evaluation ends with an examination of the impact of the remaining proposed changes.

Twelve of the proposed changes are grounded in RTF updates. The RTF is a technical advisory committee established in 1999 to provide the Pacific Northwest with consistent and reliable quantification of energy savings estimates for specific efficient technologies or actions. The energy savings estimates generated through the public processes of the RTF enable accurate estimates of the region's efficiency potential.<sup>5</sup> With the transparent and robust processes of the RTF's work as the basis of these twelve proposals, Staff supports changes consistent with RTF.

---

<sup>4</sup> As explained by Idaho Power via email to Staff, the source of the DSM alternate costs remains the 2017 Integrated Resource Plan (IRP), the most recently acknowledged IRP at the time the analysis was completed. However, the update refers to a change in how inputs from the IRP were used: DSM alternate costs were updated to use the marginal energy values from the AURORAxmp power supply model for all time periods, as well as applying the levelized capacity value for all years after a capacity deficit was identified (2026). The change was proposed through the Idaho Power Energy Efficiency Advisory Group (EEAG) on an April 28, 2020 webinar.

<sup>5</sup> See <https://rtf.nwccouncil.org/>.

Another 29 of the proposed changes are increases to existing measure incentives, or additions of new measures. Most of these proposals are minor-to-moderate on a percentage-change basis (less than 50 percent increase), while several are greater than 50 percent (these are noted with an asterisk in the attachment). All proposals are cost-effective on a Total Resource Cost (TRC) basis. Staff supports these proposals as they increase cost-effective program incentives, or increase cost-effective program participation options.

Staff's analysis focused on the impact of the remaining 55 proposed changes, which consisted of removing an equipment category or measure, reducing a measure incentive, or modifying an existing measure. To understand the impact of these changes, Staff asked for the following information for each of the changes: 2020 kWh savings system-wide, and 2020 incentive amounts system-wide, both in absolute terms and as a percentage of the 2020 C&I Program, as well as 2020 kWh savings for Oregon, and 2020 incentive amounts for Oregon, both in absolute terms and as a percentage of the 2020 C&I Program in Oregon. The Company provided these data by email, and the data are included in the attachment to this memo.

As demonstrated in the attachment, while great in number, the overall impact of the 55 proposed changes is quite small. The proposed change with the greatest impact on system-wide C&I program kWh savings – removing the occupancy sensor measure – would result in only a 0.60 percent decrease in savings. The proposed change with the greatest impact on Oregon-only C&I program kWh savings – removing the standby generation stationary pump-driven circulating block heater measure – would result in only a 0.19 percent decrease in savings.<sup>6</sup>

In discussions with Staff, the Company noted that the proposed changes would not result in entirely eliminating incentives for these measures. While the proposed changes would remove incentives available through the prescriptive measures, customers would still be able to pursue incentives for these measures through the custom rebate path, should the project meet those eligibility requirements. With customers still having a path to rebates for the affected measures, and with the limited impact to kWh savings, Staff supports these 55 proposals.

The first proposed housekeeping change corrects an error from Advice No. 19-11. In that filing, the Company requested to modify the eligibility requirement for the Green Motors Initiative from 25 horsepower to 15 horsepower. Staff supported this change.

---

<sup>6</sup> C&I Program 2020 energy savings system-wide were 129,593,880 kWh, and 2020 program system-wide costs totaled \$24,030,655. For Oregon-only 2020 energy savings were 4,029,715 kWh, and 2020 program costs totaled \$665,160. Percentages noted here, and in tables in the attachment, are based on these amounts.

While the Company's filing referenced this proposed change, the necessary and corresponding edit changing the requirement in the submitted tariff sheet was erroneously omitted. The Company now requests the tariff language be updated in this filing to reflect the appropriate eligibility requirement. Staff supports this change.

The second proposed housekeeping change clarifies language used in the calculation of energy savings, specifically the Energy Management offering. Through Energy Management customers may qualify for cost-effective improvements that save electricity through operational upgrades. Financial incentives are determined through two calculations, with the customer receiving the lesser of the two.

The Company proposes to update the tariff language for the first calculation from "\$0.025 per kilowatt-hours saved" to "\$0.025 per first-year kilowatt-hour saved." The update is necessary to clarify the time period for which the incentive calculation is applicable, and it is consistent with the language used for the Custom Incentive Options. Staff supports this change.

### Conclusion

The Company proposes over 90 changes to prescriptive measure categories and individual measures, as well as two housekeeping changes to custom rebates, in the C&I Program. These proposals are driven by an update to the Company's TRM in March 2021, updates by the RTF of various energy efficiency measures included in the C&I Program, and an update to the implementation of the Company's DSM alternate costs. The Company's cost-effectiveness models have been refreshed to reflect the new information from these updates, and the cost-effectiveness calculations have led to the proposed changes in this filing.

Staff supports proposed changes based on the transparent and robust processes of the RTF's work. Staff also supports proposed increases to existing measure incentives, or additions of new measures, as they increase cost-effective program incentives, or increase cost-effective program participation options. Finally, Staff supports the remaining proposed changes as they have a limited impact to kWh savings.

### **PROPOSED COMMISSION MOTION:**

Approve Idaho Power Company's Advice No. 21-03, proposing changes to Schedule 89, the Commercial and Industrial Energy Efficiency Program, effective with service on and after June 15, 2021.

## Attachment to Staff Report CA5 ADV 1257

This attachment includes a discussion of Staff's analysis of the changes proposed in this filing, a brief description of the Program offerings, and finally, the analysis itself, presented in tables.

### Discussion of Staff's Analysis

To present this analysis as clearly as possible Staff uses a set of tables to organize the 96 proposed changes. Staff's analysis uses the same structure as the tariff itself: 13 tables organized by various technologies and grouped by existing or new buildings.

Staff's tables are organized into five main sections, with a section for each category of proposed change:

- Removal of an equipment category / measure
- Reduction in incentive
- Modification to existing measure
- Increase in incentive
- Addition of a new measure

The tables also note the reason for the change, with the reasons grouped into shared logic when possible:

- Updated TRM
- Updated DSM alternate costs
- RTF guidelines recently updated
- Measure previously received a cost-effectiveness exception and Company has found it is unlikely the measure will become cost-effective in the future
- Standard practice / industry standard / typically required by code
- Company's updated analysis

Staff's analysis focusing on the 55 proposed changes (which consisted of removing an equipment category or measure, reducing a measure incentive, or modifying an existing measure) is shaded light yellow. To understand the impact of these changes, the following information for each of the 55 changes is included in the tables:

- 2020 kWh savings system-wide, and 2020 incentive amounts system-wide, both in absolute terms and as a percentage of the 2020 C&I Program
- 2020 kWh savings for Oregon, and 2020 incentive amounts for Oregon, both in absolute terms and as a percentage of the 2020 C&I Program in Oregon.

### Brief Description of the Program offerings

A brief description of the offerings, both before, and after the proposed changes, follows.

### Retrofit Incentives for Existing Buildings

Table 1 – Lighting and Lighting Controls – is unaffected by this filing.

#### Table 2 – HVAC and HVAC Controls

Table 2 currently includes seven measure categories. The filing proposes to remove four of the five categories of equipment, increase incentives for two measures, and add a new measure. The revised Table 2 (after proposed changes go into effect) would include four measure categories. Details of the proposed changes are in the table below.

#### Table 3 – Building Shell

Table 3 currently includes four measure categories. The filing proposes remove two measure categories.

The revised Table 3 would include two measure categories. Details of the proposed changes are in the table below.

#### Table 4 – Other Equipment

Table 4 currently includes nine measure categories. The filing proposes to remove four measure categories and three measures, reduce one measure incentive, modify one measure, increase five measure incentives, and add one new measure. The revised Table 4 would include five measure categories. Details of the proposed changes are in the table below.

#### Table 5 – Food Service Equipment

Table 5 currently includes six measure categories. The filing proposes to remove three measure categories and eight measures, reduce one measure incentive, modify five measures, increase two measure incentives, and add five new measures. The revised Table 5 would include three measure categories. Details of the proposed changes are in the table below.

#### Table 6 – Variable Speed/Frequency Drives

Table 6 currently includes variable speed controls applied to four applications. The filing proposes to modify two applications by combining them, increase one application incentive, and add one new application. The revised Table 6 would include variable speed controls applied to four applications. Details of the proposed changes are in the table below.

#### Incentives for New Construction (or Major Renovation)

##### Table 7 – Lighting

Table 7 currently includes five measure types. The filing proposes to remove two measures and add a new measure. The revised Table 7 would include four measure types. Details of the proposed changes are in the table below.



Table 8 – HVAC

Table 8 currently includes four measure types. The filing proposes to remove two measure types and two measures, and modify six measures. The revised Table 8 would include two measure types. Details of the proposed changes are in the table below.

Table 9 – Building Shell – is unaffected by this filing.

Table 10 – Controls

Table 10 currently includes four measure types. The filing proposes to remove one incentive of one measure, modify two measures, and increase five incentives. The revised Table 10 would include four measure types. Details of the proposed changes are in the table below.

Table 11 – Appliances

Table 11 currently includes three measure types. The filing proposes to remove two of the measure types and modify the remaining measure type. The revised Table 11 would include one measure type. Details of the proposed changes are in the table below.

Table 12 – Refrigeration Equipment

Table 12 currently includes five measure types. The filing proposes to remove four of the measure types, modify the remaining measure type, and add a new incentive to the remaining measure type. The revised Table 12 would include one measure type. Details of the proposed changes are in the table below.

Table 13 – Equipment

Table 13 currently includes nine measure types. The filing proposes to remove three measure types, reduce one measure incentive, modify one measure type, increase four measure incentives, and add four new measure types. The revised Table 13 would include ten measure types. Details of the proposed changes are in the table below.

Staff’s Analysis of Proposed Changes  
Retrofit Incentives for Existing Buildings

Table 2 HVAC and HVAC controls				Analysis of impact of proposed change							
				System-wide C&I Program				Oregon C&I Program			
Change ID	Change	Reason why	Note	2020 kWh savings	2020 incentive	% of 2020 kWh savings	% of 2020 costs	2020 kWh savings	2020 incentive	% of 2020 kWh savings	% of 2020 costs
<b>Removal of an equipment category / measure</b>											
1	Remove category - Air Conditioning Units	Measures previously received a cost-effectiveness exception, and after reviewing updated assumptions Company has found it is unlikely the measure will become cost-effective in the future		4,530	\$ 2,250	0.00%	0.01%	-	\$ -	0.00%	0.00%
2	Remove category - Heat Pump Units	Measures previously received a cost-effectiveness exception, and after reviewing updated assumptions Company has found it is unlikely the measure will become cost-effective in the future		-	\$ -	0.00%	0.00%	-	\$ -	0.00%	0.00%
3	Remove category - Chiller Units	Fails TRC due to: Updated TRM - updated baseline assumptions, savings, and costs		13,750	\$ 8,800	0.01%	0.04%	-	\$ -	0.00%	0.00%
4	Remove category - Evaporative Coolers	Fails TRC due to: Updated DSM alternate costs		-	\$ -	0.00%	0.00%	-	\$ -	0.00%	0.00%
5	Remove measure (from Automated Control Systems category) - EMS control with 1 strategy (New System)	Fails TRC due to: Updated DSM alternate costs		70,625	\$ 18,750	0.05%	0.08%	-	\$ -	0.00%	0.00%
<b>Reduction in incentive</b>											
None											
<b>Modification to existing measure</b>											
None											
<b>Increase in incentive</b>											
6	Automated Controls Systems measures	Updated TRM - updated measure costs	Changes to four out of five measures, increases ranging between 12-40% 100% increase*								
7	ECM motor in HVAC application measure	Updated TRM - updated measure costs									
<b>Addition of a new measure</b>											
8	Air Conditioning Tune-Up for unitary or split system AC >= 3 tons	Updated TRM - new measure added	Incentive of \$25/ton								

Table 3 Building Shell				Analysis of impact of proposed change							
				System-wide C&I Program				Oregon C&I Program			
Change ID	Change	Reason why	Note	2020 kWh savings	2020 incentive	% of 2020 kWh savings	% of 2020 costs	2020 kWh savings	2020 incentive	% of 2020 kWh savings	% of 2020 costs
<b>Removal of an equipment category / measure</b>											
9	Remove category - Premium Windows equipment	Measures previously received a cost-effectiveness exception, and after reviewing updated assumptions Company has found it is unlikely the measure will become cost-effective in the future		-	\$ -	0.00%	0.00%	-	\$ -	0.00%	0.00%
10	Remove category - Ceiling Insulation equipment	Measures previously received a cost-effectiveness exception, and after reviewing updated assumptions Company has found it is unlikely the measure will become cost-effective in the future		-	\$ -	0.00%	0.00%	-	\$ -	0.00%	0.00%
<b>Reduction in incentive</b>											
None											
<b>Modification to existing measure</b>											
None											
<b>Increase in incentive</b>											
None											
<b>Addition of a new measure</b>											
None											

Table 4 Other equipment					Analysis of impact of proposed change							
					System-wide C&I Program				Oregon C&I Program			
Change ID	Change	Reason why	Note	2020 kWh savings	2020 incentive	% of 2020 kWh savings	% of 2020 costs	2020 kWh savings	2020 incentive	% of 2020 kWh savings	% of 2020 costs	
<b>Removal of an equipment category / measure</b>												
11	Remove category - Computers	Standard practice / industry standard / typically required by code		-	\$ -	0.00%	0.00%	-	\$ -	0.00%	0.00%	
12	Remove category - Stock Tank equipment	Standard practice / industry standard / typically required by code		-	\$ -	0.00%	0.00%	-	\$ -	0.00%	0.00%	
13	Remove category - Commercial showerhead electric water heat equipment	RTF guidelines have recently been updated deactivated savings from measure										
14	Remove category - Smart Power Strips equipment	Measures previously received a cost-effectiveness exception, and after reviewing updated assumptions Company has found it is unlikely the measure will become cost-effective in the future		-	\$ -	0.00%	0.00%	-	\$ -	0.00%	0.00%	
15	Remove measure (from Motor Belts category) - Synchronous belt	Measure previously received a cost-effectiveness exception, and after reviewing updated assumptions Company has found it is unlikely the measure will become cost-effective in the future		-	\$ -	0.00%	0.00%	-	\$ -	0.00%	0.00%	
16	Remove measure (from Engine Block Heater and Controls category) - Standby generation stationary pump-driven circulating block heater	Fails TRC due to: Updated TRM - updated baseline assumptions, savings, and costs		37,345	\$ 1,000	0.03%	0.00%	7,469	\$ 200	0.19%	0.03%	
17	Remove measure (from Compressed Air category) - Cycling refrigerated compressed air dryer	Measure previously received a cost-effectiveness exception, and after reviewing updated assumptions Company has found it is unlikely the measure will become cost-effective in the future		-	\$ -	0.00%	0.00%	-	\$ -	0.00%	0.00%	
<b>Reduction in incentive</b>												
18	Change no-loss condensate drain measure (from Compressed Air category) from \$300/unit to \$200/unit	Updated TRM - decrease in the measure cost assumption	33% decrease	10,980	\$ 1,800	0.01%	0.01%	-	\$ -	0.00%	0.00%	

<b>Table 4 Other equipment continued</b>			
<b>Modification to existing measure</b>			
19	Consolidate two efficient compressed air nozzle measures (from Compressed Air category) into single measure by removing the equipment size requirements	Updated TRM - ealignment necessary as a result, updated measure savings and costs	Increases of 166%* (\$30 --> \$80) and 33% (\$60 --> \$80)
<b>Increase in incentive</b>			
20	Change high efficiency clothes washer (from Laundry Machines category) from \$125/unit to \$200/unit, and remove electric HW requirement and replace with a paired with an electric dryer requirement	Updated TRM - updated measure information	50% increase
21	Change wall-mounted engine block heater control (from Engine Block Heater and Controls category) from \$50/unit to \$100/unit	Company's updated analysis	100% increase*
22	Change engine-mounted engine block heater control (from Engine Block Heater and Controls category) from \$100/unit to \$150/unit	Company's updated analysis	50% increase
23	Change VFD on air compressor (from Compressed Air category) from \$150/hp to \$200/hp	Updated TRM - updated measure cost	33% increase
24	Change low pressure drop filter (from Compressed Air category) from \$7.50/hp to \$10.00/hp	Updated TRM - updated measure cost	33% increase
<b>Addition of a new measure</b>			
25	High efficiency battery charger (Engine Block Heater and Controls category)	Updated TRM - new measure added	Incentive of \$200/unit

Table 5 Food Service Equipment					Analysis of impact of proposed change							
					System-wide C&I Program				Oregon C&I Program			
Change ID	Change	Reason why	Note	2020 kWh savings	2020 incentive	% of 2020 kWh savings	% of 2020 costs	2020 kWh savings	2020 incentive	% of 2020 kWh savings	% of 2020 costs	
<b>Removal of an equipment category / measure</b>												
26	Remove category - Evaporator Fans equipment	Updated TRM - category removed from the TRM because of restrictions to the unit size and fitting resulting in most new models failing to qualify		64,500	\$ 6,000	0.05%	0.02%	-	\$ -	0.00%	0.00%	
27	Remove category - Floating Head Suction Pressures equipment	Fails TRC due to: Updated DSM alternate costs; Measure previously received a cost-effectiveness exception, and after reviewing updated assumptions Company has found it is unlikely the measure will become cost-effective in the future		240,024	\$ 44,130	0.19%	0.18%	-	\$ -	0.00%	0.00%	
28	Remove category - Vending Machines equipment	Standard practice / industry standard / typically required by code		-	\$ -	0.00%	0.00%	-	\$ -	0.00%	0.00%	
29	Remove measure (from Refrigeration category) - Install auto-closer – reach-in (Damaged low temp.)	Fails TRC due to: Updated TRM - updated measure cost assumptions		-	\$ -	0.00%	0.00%	-	\$ -	0.00%	0.00%	
30	Remove measure (from Refrigeration category) - Install auto-closer – walk-in (No/damaged med. temp.)	Fails TRC due to: Updated TRM - updated measure cost assumptions		-	\$ -	0.00%	0.00%	-	\$ -	0.00%	0.00%	
31	Remove measure (from Refrigeration category) - Install auto-closer – reach-in (Damaged med. temp.)	Fails TRC due to: Updated TRM - updated measure cost assumptions		-	\$ -	0.00%	0.00%	-	\$ -	0.00%	0.00%	
32	Remove measure (from Refrigeration category) - Add anti-sweat heat controls	Fails TRC due to: Updated TRM - updated measure cost assumptions		123,025	\$ 18,500	0.09%	0.08%	-	\$ -	0.00%	0.00%	

<b>Table 5 Food Service Equipment continued</b>			
33	Remove measure (from Commercial Kitchen Equipment category) - ENERGY STAR undercounter dishwasher	RTF guidelines have recently been updated - deactivated savings from measure	
34	Remove measure (from Commercial Kitchen Equipment category) - ENERGY STAR commercial dishwasher	RTF guidelines have recently been updated - deactivated savings from measure	
35	Remove measure (from Commercial Kitchen Equipment category) - ENERGY STAR electric convection ovens	Fails TRC due to: RTF guidelines have recently been updated	
36	Remove measure (from Commercial Kitchen Equipment category) - ENERGY STAR listed electric fryer	Fails TRC due to: RTF guidelines have recently been updated	
<b>Reduction in incentive</b>			
37	Change ENERGY STAR listed electric combination oven (6-15 pans) measure (from Commercial Kitchen Equipment category) from \$1,100/unit to \$800/unit	RTF guidelines have recently been updated	
<b>Modification to existing measure</b>			
38	Restructure incentive for freezer to dock automatic high-speed door measure (from Refrigeration category) from \$8,000/door to \$320/SQFT door opening	Updated TRM - realignment necessary as a result	Per Company, the change is not intended to increase or decrease the incentive. For an average door of 25 sq ft (per the TRM) the incentive will stay the same, a smaller door will receive a reduced incentive, a larger door will receive a greater incentive.
39	Restructure incentive for freezer to refrigerator automatic high-speed door measure (from Refrigeration category) from \$4,000/door to \$160/SQFT door opening	Updated TRM - realignment necessary as a result	Per Company, the change is not intended to increase or decrease the incentive. For an average door of 25 sq ft (per the TRM) the incentive will stay the same, a smaller door will receive a reduced incentive, a larger door will receive a greater incentive.

<b>Table 5 Food Service Equipment continued</b>			
40	Restructure incentive for Freezer strip curtain measure (from Refrigeration category) from \$150/curtain to \$5/SQFT door opening	Updated TRM - realignment necessary as a result	Per Company, the change is estimated to be a slight decrease in incentive. For an average door of 21 sq ft (per the TRM) the previous incentive was approx. \$7/SQFT door opening, and the proposed incentive of \$5/SQFT door opening is lower.
41	Restructure incentive for Refrigerated strip curtain measure (from Refrigeration category) from \$150/curtain to \$5/SQFT door opening	Updated TRM - realignment necessary as a result	Per Company, the change is estimated to be a slight decrease in incentive. For an average door of 21 sq ft (per the TRM) the previous incentive was approx. \$7/SQFT door opening, and the proposed incentive of \$5/SQFT door opening is lower.
42	Consolidate five ENERGY STAR listed electric steamer measures (from Kitchen Equipment category) into single measure with an incentive of \$30/pan	To simplify the measure offering	Increases range from 50% (\$20 --> \$30) to 0% (\$30 --> \$30)
<b>Increase in incentive</b>			
43	Change Install auto-closer – walk-in (No/damaged low temp.) (from Refrigeration category) from \$125/door to \$400/door	Updated TRM - measure updates	320% increase*
44	Change VFD installed on kitchen exhaust and/or makeup air fan measure (from	Updated TRM - realignment necessary as a result	25% increase



<b>Table 5 Food Service Equipment continued</b>			
<b>Addition of a new measure</b>			
45	Refrigerator to dock automatic high-speed door (Refrigeration category)	RTF guidelines have recently been updated new measure added	Incentive of \$80/SQFT door opening
46	ENERGY STAR v3.0 commercial ice machine >=200 lbs/day (Commercial Kitchen Equipment category)	Updated TRM - updated measure information	Incentive of \$300/unit
47	ENERGY STAR hot food holding cabinet - Half-Size: < 13 cu.ft. (Commercial Kitchen Equipment category)	RTF guidelines have recently been updated new measure added	Incentive of \$200/unit
48	ENERGY STAR hot food holding cabinet - Full-Size: >= 13 and < 28 cu.ft. (Commercial Kitchen Equipment category)	RTF guidelines have recently been updated new measure added	Incentive of \$400/unit
49	On-demand Overwrapper (Commercial Kitchen Equipment category)	RTF guidelines have recently been updated new measure added	Incentive of \$100/unit

<b>Table 6 Variable Speed/Frequency Drives</b>			
Change ID	Change	Reason why	Note
<b>Removal of an equipment category / measure</b>			
None			
<b>Reduction in incentive</b>			
None			
<b>Modification to existing measure</b>			
50	Consolidate two Variable speed drive on HVAC application measures (from Variable Speed Controls category) into single measure with an increased incentive of \$125/hp	Updated TRM - realignment necessary as a result; as well as updated measure savings and costs	Increases of 208%* (\$60 --> \$125) and 25% (\$100 --> \$125)
<b>Increase in incentive</b>			
51	Change Variable speed drive on potato and onion storage shed ventilation measure (from Variable Speed Controls category) from \$200/hp to \$250/hp	Company's updated analysis	25% increase
<b>Addition of a new measure</b>			
52	VFD on dairy milk transfer pump measure (Variable Speed Controls category)	None provided	Incentive of \$1,500/VFD

Incentives for New Construction (or Major Renovation)

<b>Table 7 Lighting for New Construction, Expansion, or Major Renovations</b>				Analysis of impact of proposed change							
				System-wide C&I Program				Oregon C&I Program			
Change ID	Change	Reason why	Note	2020 kWh savings	2020 incentive	% of 2020 kWh savings	% of 2020 costs	2020 kWh savings	2020 incentive	% of 2020 kWh savings	% of 2020 costs
<b>Removal of an equipment category / measure</b>											
53	Remove measure - Daylight Photo Controls	Standard practice / industry standard / typically required by code		45,261	\$ 11,870	0.03%	0.05%	-	\$ -	0.00%	0.00%
54	Remove measure - Occupancy Sensors	Fails TRC due to: Updated TRM - updated savings assumptions; updated DSM		773,948	\$ 52,725	0.60%	0.22%	594	\$ 50	0.01%	0.01%
<b>Reduction in incentive</b>											
None											
<b>Modification to existing measure</b>											
None											
<b>Increase in incentive</b>											
None											
<b>Addition of a new measure</b>											
55	Networked Lighting Controls measure	Updated TRM - new measure added	Incentive of \$0.26 per kWh saved (interior) and \$0.20 per kWh saved (exterior)								

Table 8 HVAC for New Construction, Expansion, or Major Renovations				Analysis of impact of proposed change							
				System-wide C&I Program				Oregon C&I Program			
Change ID	Change	Reason why	Note	2020 kWh savings	2020 incentive	% of 2020 kWh savings	% of 2020 costs	2020 kWh savings	2020 incentive	% of 2020 kWh savings	% of 2020 costs
<b>Removal of an equipment category / measure</b>											
56	Remove category - Efficient Chillers	Fails TRC due to: Updated TRM - updated savings and cost assumptions		346,083	\$ 63,600	0.27%	0.26%	-	\$ -	0.00%	0.00%
57	Remove category - Direct Evaporative Coolers	Fails TRC due to: Updated TRM - updated savings and cost assumptions		-	\$ -	0.00%	0.00%	-	\$ -	0.00%	0.00%
58	Remove measure - Unitary Commercial Air Conditioners, Air Cooled (Cooling Mode) (from Efficient Air-cooled AC, HP and VRF units category)	Measure previously received a cost-effectiveness exception, and after reviewing updated assumptions Company has found it is unlikely the measure will become cost-effective in the future		26,664	\$ 5,175	0.02%	0.02%	-	\$ -	0.00%	0.00%
59	Remove measure - Variable Refrigerant Flow Units (from Efficient Air-cooled AC, HP and VRF units category)	Measure previously received a cost-effectiveness exception, and after reviewing updated assumptions Company has found it is unlikely the measure will become cost-effective in the future		1,122	\$ 500	0.00%	0.00%	1,122	\$ 500	0.03%	0.08%
<b>Reduction in incentive</b>											
None											
<b>Modification to existing measure</b>											
	Modify Efficient Air-cooled HP, and Air-cooled HP VRF units category - increase sizes allowed for heat pumps, adjust incentive levels for air-cooled heat pumps and air-cooled heat pump variable refrigerant flow units as follows:										

<b>Table 8 continued</b>			
	<b>Modify Air-cooled HP:</b>		
60	Increase Part A incentive level from \$30/ton to \$50/ton thus increasing the incentive for Air-cooled HP (Cooling Mode) <=64 tons CEE Tier 1 efficiency	Updated TRM - measures and incentives restructured to reflect updated measure information	66% increase*
61	Decrease Part B incentive level from \$75/ton to \$70/ton thus decreasing the incentive for Air-cooled HP (Cooling Mode) <=5 tons CEE Tier 2 efficiency	Updated TRM - measures and incentives restructured to reflect updated measure information	7% decrease
62	Expand size requirement up to 64 tons for Air-cooled HP (Cooling Mode) for CEE Tier 1	Updated TRM - measures and incentives restructured to reflect updated measure information	
	<b>Modify Air-cooled HP VRF:</b>		
63	Move measure to Part A incentive level at \$50 per ton thus decreasing Air-cooled HP VRF Units (Cooling Mode) all sizes CEE Tier 1 efficiency	Updated TRM - measures and incentives restructured to reflect updated measure information	
64	Decrease Part C incentive level from \$100/ton to \$85/ton thus decreasing the incentive for Air-cooled HP VRF Units (Cooling Mode) all sizes CEE Tier 2 efficiency	Updated TRM - measures and incentives restructured to reflect updated measure information	15% decrease
65	Expand size requirement to "All Sizes" for Air-cooled HP VRF Units (Cooling Mode)	Updated TRM - measures and incentives restructured to reflect updated measure information	
<b>Increase in incentive</b>			
None			
<b>Addition of a new measure</b>			
None			

Table 10 Controls for New Construction, Expansion, or Major Renovation				Analysis of impact of proposed change							
				System-wide C&I Program				Oregon C&I Program			
Change ID	Change	Reason why	Note	2020 kWh savings	2020 incentive	% of 2020 kWh savings	% of 2020 costs	2020 kWh savings	2020 incentive	% of 2020 kWh savings	% of 2020 costs
<b>Removal of an equipment category / measure</b>											
66	Remove measure - Energy Management Control System Part A for 1-strategy	Fails TRC due to: Updated DSM alternate costs		59,438	\$ 15,780	0.05%	0.07%	-	\$ -	0.00%	0.00%
<b>Reduction in incentive</b>											
None											
<b>Modification to existing measure</b>											
67	Consolidate HVAC Variable Speed Drives Part A and Part B into a single measure with an incentive of \$125 per hp	Updated TRM - realignment necessary as a result; as well as updated measure savings and costs	Increases of 208%* (\$60-->\$125) and 25% (\$100-->\$125)								
68	Change HVAC Variable Speed Drives Part C Potato/onion storage shed ventilation from \$200 per hp to \$250 per hp; rename to Part B after consolidating original Part A and Part B in the consolidated measure above	Company's updated analysis	25% increase								

<b>Table 10 continued</b>			
<b>Increase in incentive</b>			
69	Change Energy Management Control System - Part B for 2-strategies from \$70 per ton to \$80 per ton	Updated TRM - updated measure costs	14% increase
70	Change Energy Management Control System - Part C for 3-strategies from \$80 per ton to \$100 per ton	Updated TRM - updated measure costs	25% increase
71	Change Energy Management Control System - Part D for 4-strategies from \$90 per ton to \$120 per ton	Updated TRM - updated measure costs	33% increase
72	Change Energy Management Control System - Part E for 5-strategies from \$100 per ton to \$140 per ton	Updated TRM - updated measure costs	40% increase
73	Change Demand Controlled Kitchen Ventilation Exhaust Hood from \$200 per hp to \$250 per hp	Updated TRM - updated measure information	25% increase
<b>Addition of a new measure</b>			
None			

<b>Table 11 Appliances for New Construction, Expansion, or Major Renovations</b>			
Change ID	Change	Reason why	Note
<b>Removal of an equipment category / measure</b>			
74	Remove Efficient Undercounter Dishwashers (Electric) measure	RTF guidelines have recently been updated deactivated savings from measure	
75	Remove Efficient Commercial Dishwashers (Electric) measure	RTF guidelines have recently been updated deactivated savings from measure	
<b>Reduction in incentive</b>			
None			
<b>Modification to existing measure</b>			
76	Increase incentive for Efficient Laundry Machines (Electric) measure from \$125 per unit to \$200 per unit; remove the electric water heating requirement and add the requirement that the washer be paired with an electric dryer	Updated TRM - updated measure information	60% increase*
<b>Increase in incentive</b>			
None			
<b>Addition of a new measure</b>			
None			







<b>Table 13 continued</b>			
<b>Increase in incentive</b>			
89	Change Air compressor VFD measure from \$150 per hp to \$200 per hp	Updated TRM - updated measure costs	33% increase
90	Change Low Pressure Drop Filter from \$7.50 per hp to \$10.00 per hp	Updated TRM - updated measure costs	33% increase
91	Change Engine Block Heater Controls Wall Mounted from \$50 per unit to \$100 per unit	Company's updated analysis	100% increase
92	Change Engine Block Heater Controls Engine Mounted from \$100 per unit to \$150 per unit	Company's updated analysis	50% increase
<b>Addition of a new measure</b>			
93	Dairy/Milk Transfer Pump VFD measure	Updated TRM - measure added in the previous version	Incentive of \$1,500 per unit
94	Circulation Generator Block Heater measure	Updated TRM - updated measure information	Incentives of: <= 200 kW - \$200 201 - 500 kW - \$350 501 - 1,000 kW - \$500
95	Ice Machine – Commercial ENERGY STAR with a capacity of >=200 lbs per day measure	Updated TRM - updated measure information	Incentive of \$300 per unit
96	High Efficiency Battery Chargers measure	Updated TRM - new measure added	Incentive of \$200 per unit