

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF THE APPLICATION)
OF IDAHO POWER COMPANY FOR A)
DETERMINATION OF 2021 DEMAND-) CASE NO. IPC-E-22-08
SIDE MANAGEMENT EXPENSES AS)
PRUDENTLY INCURRED.)
_____)

IDAHO POWER COMPANY

DIRECT TESTIMONY

OF

ROBERT Z. THOMPSON

1 Q. Please state your name and business address.

2 A. My name is Robert Z. Thompson. I go by my
3 middle name, and therefore, Zack Thompson is my preferred
4 name. My business address is 1221 West Idaho Street, Boise,
5 Idaho 83702.

6 Q. By whom are you employed, and in what
7 capacity?

8 A. I am employed by Idaho Power Company ("Idaho
9 Power" or "Company") as a Regulatory Analyst in the
10 Regulatory Affairs Department.

11 Q. Please describe your educational background.

12 A. In May of 2008, I received a Bachelor of Arts
13 degree in Business, Organizations, and Society with a minor
14 in Economics from Franklin & Marshall College in Lancaster,
15 Pennsylvania. In May of 2014, I received a Master of
16 Business Administration degree with a specialization in
17 Finance from Louisiana State University in Baton Rouge,
18 Louisiana. I have also attended "The Basics: Practical
19 Regulatory Training for the Electric Industry," an electric
20 utility ratemaking course offered through the New Mexico
21 State University's Center for Public Utilities.

22 Q. Please describe your work experience with
23 Idaho Power.

24 A. In 2020, I was hired as a Regulatory Analyst
25 in the Company's Regulatory Affairs Department. My primary

1 responsibilities include supporting activities associated
2 with demand-side management ("DSM").

3 Q. What is the purpose of your testimony in this
4 case?

5 A. The purpose of my testimony is to present the
6 Company's request for a determination that \$35,055,318 of
7 DSM expenses for the acquisition of demand-side resources
8 in 2021 was prudently incurred. This amount includes
9 \$27,922,340 funded in 2021 by the Idaho Energy Efficiency
10 Rider ("Rider") and \$7,132,978 of demand response program
11 incentive payments funded through base rates and tracked
12 annually through the Power Cost Adjustment ("PCA").

13 My testimony will (1) provide a review of 2021 DSM
14 program performance (2) discuss 2021 DSM expenses and
15 adjustments, (3) provide an overview of the cost-
16 effectiveness results for 2021, (4) review program
17 evaluation efforts, and (5) describe the input stakeholders
18 provided during the year.

19 **I. 2021 DSM PROGRAM PERFORMANCE**

20 Q. What is Idaho Power's focus when evaluating
21 program performance?

22 A. Idaho Power takes its responsibility of
23 prudently managing customer-funded DSM activities
24 seriously, and the Company believes it is important to
25 provide its customers with the maximum value from these

1 activities. The Company's actions in 2021, and the content
2 of the *Demand-Side Management 2021 Annual Report* ("DSM 2021
3 Annual Report"), Attachment 1 to the Application filed in
4 this proceeding, provide evidence supporting the
5 conscientious work Idaho Power employees made toward using
6 customers' funds wisely to support DSM activities.

7 Q. Please provide an overview of Idaho Power's
8 DSM activities in 2021.

9 A. On a system-wide basis, Idaho Power offered a
10 broad portfolio of energy efficiency and demand response
11 programs available to all customer segments, and the
12 Company also participated in market transformation efforts
13 through the Northwest Energy Efficiency Alliance ("NEEA").
14 In addition, the Company offered several educational and
15 behavioral initiatives including the Residential Energy
16 Efficiency Education Initiative, seasonal contests, the
17 School Cohort, and the continuation of the Water and
18 Wastewater Cohort.

19 Idaho Power continued to take necessary measures to
20 respond to the COVID-19 pandemic by modifying DSM activity
21 to prioritize the safety of customers, contractors, and
22 Idaho Power staff, while balancing opportunities to
23 maintain program performance. The Company leveraged its
24 Energy Efficiency Advisory Group ("EEAG") to solicit input
25 and feedback on ways to adjust programs impacted by the

1 pandemic (and the resulting supply chain issues) to
 2 identify opportunities to increase program effectiveness,
 3 delivery, and marketing.

4 A summary of Idaho Power’s 2021 DSM programs is
 5 provided in Table 1 below.

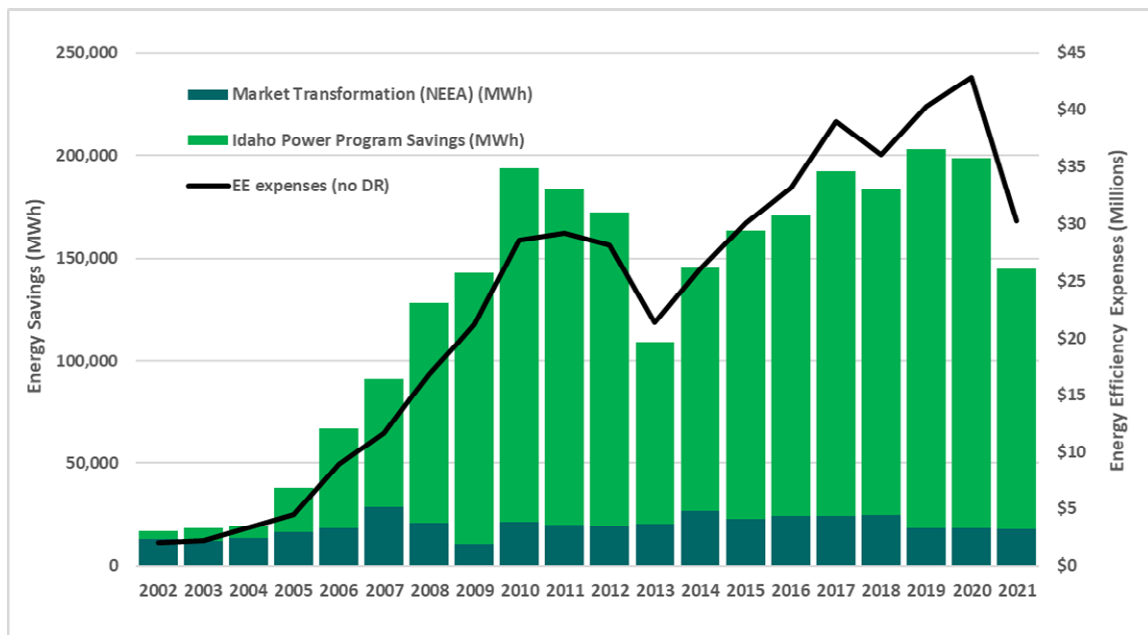
6 **Table 1. 2021 DSM Programs by Sector, Operational Type,**
 7 **and Location**

Program by Sector	Operational Type	State
Residential		
A/C Cool Credit.....	Demand Response	ID/OR
Easy Savings: Low-Income Energy Efficiency Education	Energy Efficiency	ID
Educational Distributions.....	Energy Efficiency	ID/OR
Energy House Calls	Energy Efficiency	ID/OR
Heating & Cooling Efficiency Program	Energy Efficiency	ID/OR
Home Energy Audit Program	Energy Efficiency	ID
Home Energy Report Program.....	Energy Efficiency	ID
Multifamily Energy Savings Program	Energy Efficiency	ID/OR
Oregon Residential Weatherization.....	Energy Efficiency	OR
Rebate Advantage	Energy Efficiency	ID/OR
Residential New Construction Program	Energy Efficiency	ID
Shade Tree Project	Energy Efficiency	ID
Weatherization Assistance for Qualified Customers	Energy Efficiency	ID/OR
Weatherization Solutions for Eligible Customers.....	Energy Efficiency	ID
Commercial/Industrial		
Commercial and Industrial Energy Efficiency Program		
Custom Projects.....	Energy Efficiency	ID/OR
Green Motors—Industrial	Energy Efficiency	ID/OR
New Construction.....	Energy Efficiency	ID/OR
Retrofits.....	Energy Efficiency	ID/OR
Commercial Energy-Saving Kits.....	Energy Efficiency	ID/OR
Flex Peak Program	Demand Response	ID/OR
Oregon Commercial Audits	Energy Efficiency	OR
Small Business Direct Install.....	Energy Efficiency	ID/OR
Irrigation		
Irrigation Efficiency Rewards.....	Energy Efficiency	ID/OR
Green Motors—Irrigation.....	Energy Efficiency	ID/OR
Irrigation Peak Rewards.....	Demand Response	ID/OR
All Sectors		
Northwest Energy Efficiency Alliance.....	Market Transformation	ID/OR

8

1 estimated 17,870 MWh¹ of energy efficiency market
 2 transformation savings through NEEA initiatives. Chart 1
 3 below shows the incremental annual energy efficiency
 4 savings in MWh from 2002 to the current year. Also shown in
 5 this chart are the total energy efficiency expenses for
 6 each year in millions of dollars.

7 **Chart 1. Incremental Annual Energy Efficiency Savings**
 8 **(MWh) and Energy Efficiency Expenses (\$ millions) 2002-2021**



9

10 Note: 2021 NEEA market-transformation savings are estimated.

11 Q. In 2021, did Idaho Power meet the energy
 12 efficiency targets included in its 2021 Integrated Resource
 13 Plan ("IRP")?

14 A. Yes. In 2021, Idaho Power achieved 16.4
 15 average megawatt-hours ("aMW") of incremental energy

¹ Because Idaho Power will not receive final 2021 savings from NEEA until the second quarter 2022, the NEEA-attributable savings is an estimate provided to Idaho Power by NEEA.

1 efficiency savings, including NEEA estimated energy
2 savings, which exceeded the economic technical achievable
3 potential included in the 2021 IRP of 15.4 aMW. The 2021
4 savings represent enough energy to power approximately
5 12,600 average homes in Idaho Power's service area for one
6 year.

7 Q. Does the Company engage in customer education
8 and outreach activities for which it cannot quantify or
9 report savings?

10 A. Yes. The Company engages in significant
11 educational awareness activities and marketing efforts that
12 are likely to result in energy savings experienced by
13 customers but are not quantified or claimed as part of
14 Idaho Power's annual savings. These efforts are designed to
15 reach all customer segments and are more fully explained
16 throughout the DSM 2021 Annual Report. In 2021, this
17 included activity such as: holding virtual technical
18 trainings and workshops with customers, producing the
19 *Energy@Work* newsletters, participating in the Idaho
20 Irrigation Equipment Association Winter Show, hosting or
21 participating in vendor workshops promoting irrigation
22 system efficiency, participating in agricultural shows,
23 publishing residential energy efficiency guides which
24 showcased behavioral changes to save energy, attending

1 other outreach activities such as home shows, sponsoring
2 virtual webinars, and supporting the Integrated Design Lab.

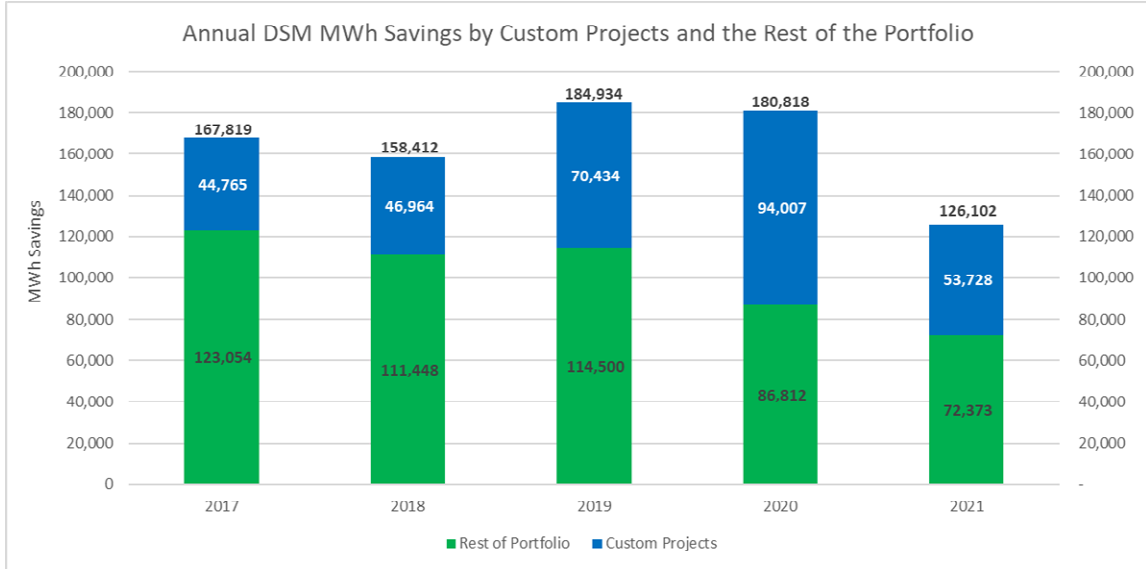
3 Q. How did 2021 Savings compare to 2020?

4 A. Overall portfolio savings decreased year-over-
5 year compared to 2020 with the main driver being the
6 Commercial & Industrial ("C&I") Custom Projects option.
7 These projects can vary greatly in size, scale, and
8 completion, which can cause swings in overall portfolio
9 savings performance annually. The variability of program
10 performance is highlighted by the fact that the number of
11 custom projects completed in 2021 declined 20 percent (135
12 as compared to 169 in 2020), but the savings declined 43
13 percent. As seen in Chart 2 below, the savings from the
14 Custom Projects option has accounted for a large portion of
15 the overall portfolio savings (not including NEEA savings),
16 averaging approximately 38 percent over the last five
17 years. For 2021, the savings from Custom Projects is more
18 in-line with the savings from program years 2017 and 2018.

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1 **Chart 2. 2017 – 2021 Annual DSM Savings: Custom Projects,**
 2 **Rest of Portfolio, and Total Portfolio.**



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5 Over the last three years, the Custom Projects
 6 option has accounted for 38 percent, 52 percent, and 43
 7 percent of total portfolio savings in 2019, 2020, and 2021
 8 respectively. This results in the portfolio having greater
 9 sensitivity to the performance of the Custom Projects
 10 option. Chart 3 below shows how the change in savings of
 11 the Custom Projects option and the Rest of the Portfolio
 12 impact the total portfolio savings.

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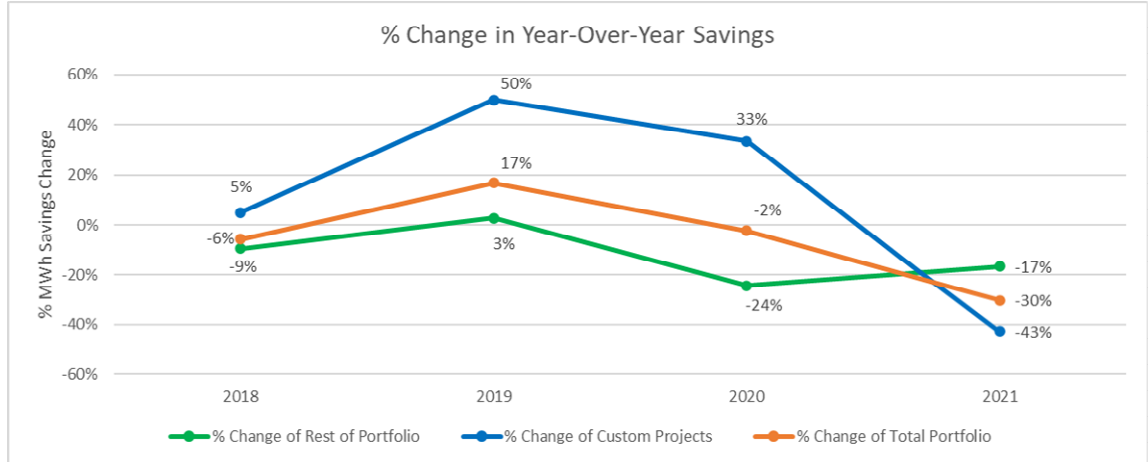
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1 **Chart 3. Savings Percentage Change: Custom Projects, Rest**
2 **of Portfolio, and Total Portfolio.**



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5 With the decline in Custom Project's savings in
6 2021, the overall portfolio savings is pulled down as well,
7 which is represented by the inflection point in 2021 in
8 Chart 3. Whereas in previous years, Custom Projects has
9 offset lower or negative savings growth from the Rest of
10 the Portfolio. For example, in 2020, the Rest of the
11 Portfolio saw a 24 percent decrease as compared to 2019.
12 Custom Projects saw a year-over-year increase of 33
13 percent, and therefore, the overall portfolio saw only a
14 slight 2 percent decrease. The C&I Custom Projects option
15 is not the only driver in the 2021 savings decrease, but it
16 is a major contributing factor.

17 Q. Did the ongoing COVID-19 pandemic impact the
18 Company's DSM activity in 2021?

19 A. Yes. Programs continued to experience impacts
20 as well as some activity still being suspended through

1 large portions of the year that included person-to-person
2 interactions such as installers in customer homes, in-
3 person trade shows, in-person vendor trainings, and
4 contractors working at business sites. These actions were
5 necessary, prudent, and continued to be in the best
6 interest of customers, employees, and contractors' safety.
7 The Company also made operational adjustments to several
8 programs to provide program offerings while maintaining
9 appropriate safety protocols. The Tables on Page 6 of the
10 DSM 2021 Annual Report summarize the status of the
11 individual programs and how they were affected by COVID-19
12 during 2021.

13 The pandemic's impact on the nation's supply chain
14 also slowed work in the Company's C&I and Irrigation
15 programs. Customers experienced labor and material
16 constraints, as well as overall increases in costs, making
17 it more difficult and expensive to complete projects
18 timely. Therefore, even if the pandemic did not directly
19 affect the Company's ability to perform on-site work in a
20 given program during 2021, it continued to have an impact
21 on each of the Company's DSM programs in some way.

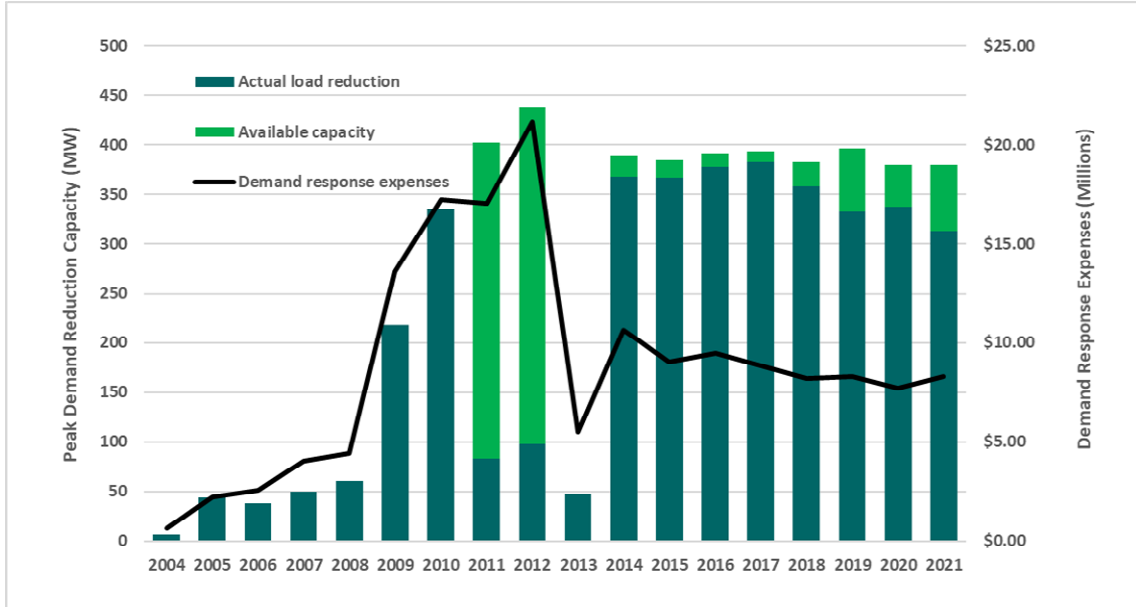
22 ***Demand Response***

23 Q. What level of demand reduction capacity was
24 available from Idaho Power's demand response programs in
25 2021?

1 A. The total available capacity of Idaho Power's
2 three demand response programs was approximately 384
3 megawatts ("MW"). This value represents the total demand
4 response capacity calculated using the total enrolled MW
5 from participants with an expected maximum realization rate
6 for those participants in all three demand response
7 programs. The programs provided actual non-coincident
8 demand reduction of 313 MW during the 2021 program season.
9 The Company's Load Serving Operations Group utilized the
10 flexibility of the four irrigation participant groups
11 individually in 2021 based on system need while taking into
12 consideration customer impacts. Therefore, the 313 MW of
13 reduction was lower compared to previous years because the
14 irrigation program was not fully utilized for any single
15 demand response event. Chart 4 below reflects the annual
16 available peak demand reduction capacity and actual load
17 reduction in MW since 2004 and the associated annual
18 expenses in millions of dollars.

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1 **Chart 4. Peak Demand Reduction Capacity (MW) and Demand**
 2 **Response Expenses (\$ millions) 2004-2021**



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5 **II. 2021 DSM EXPENSES AND ADJUSTMENTS**

6 Q. What amount of DSM expenses is the Company
 7 requesting the Commission find were prudently incurred?

8 A. In the delivery of energy efficiency, demand
 9 response, and market transformation programs, Idaho Power
 10 expended \$27,922,340 of Rider funds and \$7,132,978 of
 11 demand response program incentives, for a total of
 12 \$35,055,318 spent on demand-side resource acquisition in
 13 2021. Idaho Power requests that the 2021 Rider-funded DSM
 14 expenses, and the 2021 demand response program incentives
 15 recovered through base rates and the PCA, be reviewed
 16 together for a prudence determination. Exhibit No. 1 to my
 17 testimony, *2021 Idaho DSM Expenses and Adjustments for*

1 *Prudence Filing*, shows a breakout of these expenses by
2 program, customer sector, and funding source.

3 This year's Rider-funded DSM expenses decreased
4 \$12,554,703, or 31 percent, compared to the DSM expenses
5 reviewed in last year's prudence case, Case No. IPC-E-21-
6 04. As described more fully above, the decrease in 2021
7 expenses was primarily driven by a decrease in large
8 projects participating in the C&I Program Custom Projects
9 option. This resulted in the Custom Projects option having
10 \$9,566,883 less in expenses as compared to 2020 and
11 coupled with the decrease in expenses associated with the
12 programs impacted by COVID-19, overall DSM activity
13 expenses were less year-over-year. The Custom Projects
14 option has consistently had variable annual performance
15 fluctuations in both savings and expenses due to the length
16 of time projects take to complete, the unpredictable nature
17 of the project pipeline, and the varying sizes of projects.

18 Q. Please compare the dollar amounts in Exhibit
19 No. 1 to your testimony with Appendix 2, *2021 DSM expenses*
20 *by funding source (dollars)*, of the DSM 2021 Annual Report.

21 A. For clarity and ease of understanding, Exhibit
22 No. 1 ties to Appendix 2, which is found on page 178 of the
23 DSM 2021 Annual Report. The first column of Appendix 2
24 labeled "Idaho Rider" and the first column of Exhibit No. 1
25 labeled "Rider Expenses" match at the row labeled "Total

1 Expenses" in Exhibit No. 1 and "Grand Total" in Appendix 2
2 in the amount of \$27,943,096. All values in Exhibit No. 1
3 represent DSM expenses for the Idaho service area only.
4 Three prior year-end and three current year-end accounting
5 adjustments were necessary to accurately arrive at the
6 total 2021 expenses for purposes of the prudence
7 determination. These six adjustments are listed in Exhibit
8 No. 1 under the Adjustments section as 2020 Audit
9 Adjustment, 2020 Green Power, and 2020 SBDI: Small Business
10 Direct Install ("SBDI"), 2021 Residential New Construction,
11 2021 Commercial & Industrial, and 2021 SBDI: Small Business
12 Direct Install.

13 Q. Please describe the prior year-end accounting
14 adjustments included in Exhibit No. 1.

15 A. In 2021, Idaho Power made three adjustments
16 associated with the 2020 prudence request in IPC-E-21-04.
17 The first adjustment of \$2,159 was discovered when the
18 Company was preparing the response to the first audit
19 request of the Commission Staff. In preparation of the
20 response, the Company identified an instance where 100
21 percent of an invoice had been charged to the Idaho Rider
22 instead of the appropriate allocation of 95 percent. To
23 correct for the misallocation, \$2,159 was transferred to
24 the Oregon Rider in 2021, and therefore, \$2,159 needs to be
25 added back to avoid understating the 2021 prudence request.

1 The second adjustment reversed a credit of \$57 that
2 was incorrectly applied to the Idaho Rider during 2020
3 instead of the Company's Green Power program, which is a
4 non-Rider funded program. Therefore, \$57 needs to be
5 subtracted from the 2021 prudence request because it was
6 already deemed prudent by the Commission in the 2020
7 request.

8 During 2020, Idaho activity for the SBDI Program
9 totaling \$15,910 was charged to the Oregon Energy
10 Efficiency Rider and should have been charged to the Idaho
11 Rider. Idaho Power made a correcting accounting entry in
12 2021 to move the charges from the Oregon Rider to the Idaho
13 Rider. The reversing entry is excluded from the 2021 DSM
14 expenses as it was already deemed prudent by the Commission
15 in the 2020 prudence filing.

16 Q. Please describe the current year-end
17 accounting adjustments included in Exhibit No. 1.

18 A. During preparation of the 2021 prudence
19 filing, three accounting adjustments to the Rider for 2021
20 were identified, and the corrections were made after the
21 2021 year-end financial books were closed. The first
22 adjustment adds \$1,356 of expenses associated with Idaho
23 activity for the Residential New Construction Program that
24 were incorrectly charged to the Oregon Energy Efficiency
25 Rider in 2021.

1 The second adjustment reduces \$1,044 of expenses
2 associated with the Commercial & Industrial program that
3 should have been charged to the Oregon Rider instead of the
4 Idaho Rider.

5 The final adjustment of \$7,260 (2021 SBDI) was
6 correcting a duplicate transaction. The \$7,260 of Idaho
7 SBDI expenses had originally been charged to the Oregon
8 Rider. When this was discovered in 2021, the Company
9 transferred the amount to the Idaho Rider, but the
10 transaction was duplicated adding the amount twice. The
11 duplicate transaction was identified and reversed in 2022,
12 and therefore, \$7,260 needs to be removed from the 2021
13 prudence request.

14 Q. What amount of Rider-funded employee DSM-
15 related labor expense did the Company incur in 2021?

16 A. The 2021 total Rider-funded DSM employee labor
17 expense incurred by the Company related to managing the DSM
18 program portfolio and pursuing energy efficiency
19 educational and awareness campaigns was \$3,205,211.

20 Q. What amount of 2021 DSM-related labor is the
21 Company requesting be funded through the Rider?

22 A. The Company is requesting \$3,205,211 in 2021
23 DSM labor expense be collected through the Rider. This
24 amount is appropriately recovered through the Rider as it
25 is lower than the Commission's authorized labor cost cap

1 detailed in Order Nos. 34874 and 35270. The 2021 DSM labor
 2 expense was \$28,722 under the cap as detailed in Table 2
 3 below.

Table 2. Labor Expense Calculation

2020 Total Actual Labor Expense		\$	3,408,382
2020 FTEs*	÷		25.09
2020 Actual Average Wage per FTE		\$	135,848
2% Cap	x		1.02
2021 Maximum Average Wage per FTE		\$	138,565
2021 FTEs*	x		23.34
2021 Maximum Allowed Labor Expense*		\$	3,233,933
2021 Total Actual Labor Expense	-	\$	3,205,211
Amount Under Maximum Allowed Labor Expense		\$	28,722

*25.09 and 23.34 are rounded values.

4
 5
 6 Q. What was the year-end 2021 balance of the
 7 Rider?

8 A. The Rider account balance on December 31,
 9 2021, had a negative, or under-collected, balance of
 10 \$6,937,705. Table 3 below shows the January 2021 beginning
 11 balance, funding plus accrued interest, expenses, and the
 12 ending balance as of December 31, 2021.

13 **Table 3. Idaho Energy Efficiency Rider (January-December**
 14 **2021)**

Idaho Energy Efficiency Rider		
2021 Beginning Balance	\$	(12,230,374)
2021 Funding plus Accrued Interest as of 12/31/21		33,235,765
Total 2021 Funds		21,005,391
2021 Expenses as of 12/31/21		(27,943,096)
Ending Balance as of 12/31/21	\$	(6,937,705)

15

1 **III. 2021 COST-EFFECTIVENESS OVERVIEW**

2 Q. What is Idaho Power's overall goal when it
3 comes to DSM cost-effectiveness tests?

4 A. Idaho Power strives to ensure that DSM funds
5 collected from customers are utilized to support the
6 pursuit of cost-effective energy efficiency and demand
7 response programs, with the limited exception of certain
8 policy considerations. This goal is achieved by applying a
9 multi-step process. Prior to the actual implementation of
10 energy efficiency or demand response programs, Idaho Power
11 performs a preliminary cost-effectiveness analysis to
12 assess whether a potential program design or measure will
13 be cost-effective from the perspective of customers as well
14 as the Company. Idaho Power measures cost-effectiveness
15 under three tests: the UCT, the TRC test, and the PCT. A
16 review of each test allows for an economic assessment of
17 the life-cycle costs and benefits of a DSM investment from
18 the perspective of DSM program participants, Idaho Power,
19 and non-participating customers.

20 Idaho Power also reviews the cost-effectiveness
21 results for each program and measure on an annual basis to
22 determine whether a program should continue or be modified
23 so it remains cost-effective on an ongoing basis. If a
24 measure or program is identified as non-cost-effective,
25 Idaho Power seeks EEAG input before making its

1 determination on modifying, continuing, or discontinuing an
2 offering.

3 The cost-effectiveness test methodologies and
4 assumptions are described in more detail in the first pages
5 of *Supplement 1: Cost-Effectiveness* ("Supplement 1"),
6 included in Attachment 1 to the Application in this
7 proceeding.

8 Q. Does Idaho Power believe its application of
9 the standard economic tests is consistent with Commission
10 directives?

11 A. Yes. Idaho Power believes its application of
12 the three economic tests is consistent with prior
13 Commission directives, as described in Order No. 33365:²

14 We thus find it reasonable for the Company to
15 continue screening potential programs using
16 each test as a guideline, and to advise us on
17 how the Company's programs fare under each
18 test. When the Company ultimately seeks to
19 recover its prudent investment in such
20 programs, however we believe the Company may
21 (but need not exclusively) emphasize the UCT-
22 and that test's focus on Company-controlled
23 benefits and costs-to argue whether the
24 programs were cost-effective. As always, the
25 Company ultimately must persuade us that its
26 program investments were prudent under the
27 totality of the circumstances.

28 //
29 //

² *In the Matter of the Application of Idaho Power Company for a Determination of 2014 Demand-Side Management Expenditures as Prudently Incurred*, Case No. IPC-E-15-06, Order No. 33365, p. 9-10.

1 Because Idaho Power must ultimately demonstrate to
2 the Commission that its program investments were prudent
3 under "the totality of the circumstances", the Company
4 continues to evaluate performance from the three
5 perspectives.

6 Q. Has the Commission also issued a determination
7 for the proper economic test perspective to be utilized in
8 evaluating energy efficiency resources in the IRP?

9 A. Yes. In Order No. 34469 issued in Case No.
10 IPC-E-19-11, the Commission ordered "that Idaho Power use
11 the UCT perspective for integrated resource planning."

12 **A. 2021 Cost-Effectiveness Results**

13 Q. What were the results of the 2021 cost-
14 effectiveness analyses?

15 A. Exhibit No. 2 to my testimony, *2021 Cost-*
16 *Effectiveness Summary by Program, Sector, and Portfolio*,
17 shows the results of the UCT, TRC test, and PCT for every
18 energy efficiency program aggregated by sector and for the
19 overall portfolio. As shown in Table 4, the overall DSM
20 Portfolio achieved benefit/cost ratios greater than 1.0 for
21 each of the three cost-effectiveness tests. All three of
22 the program sectors achieved benefit/cost ratios greater
23 than 1.0 from the UCT and PCT perspectives with the
24 Residential Sector having a TRC less than 1.0.

25 //

1 **Table 4. 2021 Benefit/Cost by Sector & Portfolio**

Sector	Utility Cost Test (UCT)	Total Resource Cost (TRC) Test	Participant Cost Test (PCT)
Residential*	1.02	0.74	2.61
Commercial/Industrial	2.74	1.46	1.76
Irrigation	3.33	4.49	4.58
Portfolio*	2.17	2.18	2.73

*Does not include Weatherization Assistance for Qualified Customers ("WAQC") program³

2

3 Q. Did the Company quantify the Residential
4 Sector and DSM Portfolio cost-effectiveness, including the
5 costs and benefits of WAQC?

6 A. Yes. Table 5 below shows the cost-
7 effectiveness of the Residential Sector and the Overall DSM
8 Portfolio with and without the WAQC program included.

9 **Table 5. Residential and Portfolio Cost-Effectiveness with**
10 **and without WAQC**

Sector	WAQC Not Included			WAQC Included		
	UCT	TRC	PCT	UCT	TRC	PCT
Residential	1.02	0.74	2.61	0.80	0.63	2.41
Portfolio	2.17	2.18	2.73	2.08	2.13	2.72

11

12 For 2021, Idaho Power calculated the Residential
13 Sector and Overall Portfolio cost-effectiveness with and
14 without the benefits and costs associated with the WAQC
15 program, which is funded through base rates and not the

³ Presenting the cost-effectiveness of the Residential Sector and Overall DSM Portfolio with and without the WAQC removes the cost burden of the program. This remains consistent with how Avista and Rocky Mountain Power present their sector and portfolio cost-effectiveness results. See [Avista 2018 Idaho Annual Conservation Report](#), Page 13 Table 11 and [Rocky Mountain Power 2020 Idaho Energy Efficiency and Peak Reduction Annual Report](#), Page 16 Table 10.

1 Idaho Energy Efficiency Rider. As described in more detail
2 later in my testimony, WAQC is a weatherization program for
3 customers with limited income. While the program provides
4 real savings to customers that would otherwise be unable to
5 afford to weatherize their homes, it remains non-cost-
6 effective from an economic perspective despite offering
7 health and safety benefits to customers in need.

8 Q. What assumptions were utilized to calculate
9 the sector and portfolio cost-effectiveness for 2021?

10 A. Idaho Power relies on research conducted by
11 third parties to obtain savings and cost assumptions for
12 various measures. The Company fixes savings assumptions
13 when budgets and goals are established for the next
14 calendar year unless codes and standards change, or program
15 updates necessitate a need to use updated savings. The
16 remaining inputs are obtained from the IRP planning
17 process. Because the 2019 Second Amended IRP was not
18 acknowledged at the time 2021 DSM program planning
19 occurred, Idaho Power used the avoided costs from the
20 acknowledged 2017 IRP.

21 To calculate the sector cost-effectiveness, Idaho
22 Power includes the benefits and costs associated with
23 programs that produce quantifiable energy savings. The
24 portfolio cost-effectiveness is the sum of all energy

1 efficiency activities, including those that do not have
2 savings associated with them, such as overhead expenses.

3 Q. What are the results of specific program cost-
4 effectiveness?

5 A. On an individual program basis, 10 of the 16
6 energy efficiency programs offered in Idaho for which the
7 Company calculates cost-effectiveness had benefit/cost
8 ratios greater than 1.0 under the UCT.

9 The PCT ratios cannot be calculated for programs
10 that do not have a direct customer cost, and the PCT is
11 shown as "N/A" in Exhibit No. 2 for those programs. The
12 details of these calculations are found in Supplement 1 of
13 the DSM 2021 Annual Report.

14 Q. Did Idaho Power calculate cost-effectiveness
15 for each measure within each energy efficiency program it
16 offers?

17 A. Yes. In 2021, Idaho Power evaluated the
18 benefits and costs of 272 measures. The results of these
19 calculations, along with measure assumption details and
20 source documentation, can be found in Supplement 1 to the
21 DSM 2021 Annual Report.

22 Q. How did Idaho Power address any individual
23 measures that are not cost-effective based on one or more
24 tests?

1 A. The cost and benefit values used in the
2 various analyses are based on markets, technologies,
3 economic inputs, savings estimates, and cost estimates,
4 which can change over time. When a measure is identified as
5 non-cost-effective at a specific point in time, Idaho Power
6 first evaluates whether the inputs used in the calculations
7 are still applicable. Then the Company determines if the
8 measure parameters should be modified or if the measure
9 should be eliminated altogether. For additional detail on
10 measure analysis, please refer to Supplement 1 to the DSM
11 2021 Annual Report.

12 **B. Non-Cost-Effective Programs**

13 **1. Income Qualified Weatherization**

14 Q. What were the cost-effectiveness results for
15 the WAQC and Weatherization Solutions for Eligible
16 Customers ("Solutions") programs?

17 A. As shown in Exhibit No. 2, the WAQC and
18 Solutions programs had a UCT of 0.19 and 0.15,
19 respectively.

20 Q. Does the Company expect the cost-effectiveness
21 of the WAQC and Solutions programs to improve to greater
22 than 1.0?

23 A. No. The WAQC and Solutions programs provide
24 real and substantial per home savings, but due to the costs
25 of comprehensive whole-house weatherization, it is

1 difficult for the value of the savings to outweigh the
2 costs. The weatherization services provided through the
3 WAQC program are consistent with the Idaho State
4 Weatherization Assistance Program ("WAP") guidelines, and
5 both the WAQC and Solutions programs are offered at no
6 charge to the participant. In 2021, 161 homes in Idaho were
7 weatherized through the WAQC program.

8 For the Solutions program, the Company has continued
9 a participation requirement that was introduced in 2016
10 requiring landlords to fund at least 10 percent of the
11 project. In 2021, the Company held the average cost per
12 home constant from the 2014 level for the weatherization
13 contractors, which helped reduce the cost of the program.
14 The Company continues to support the whole-house philosophy
15 by allowing a \$6,000 annual maximum average per-home cost.
16 In 2021, 7 homes in Idaho were weatherized through the
17 Solutions program after in-home work resumed in October
18 2021. Typically, more homes are weatherized when the
19 program is fully operational for an entire year with 129
20 and 141 homes being weatherized in 2019 and 2018
21 respectively. Of the 7 homes that were weatherized in 2021,
22 4 were single-family homes, and 3 were manufactured homes.
23 Q. Does Idaho Power plan to continue offering the
24 WAQC and Solutions programs in the future?

1 A. Yes. While the Company has identified that the
2 programs are not cost-effective under the UCT, unless the
3 Commission directs otherwise, Idaho Power will continue to
4 offer them to the Company's limited-income customers on an
5 ongoing basis. The Company will also continue to consult
6 the EEAG and weatherization managers who oversee the
7 weatherization work to look for ways to improve the cost-
8 effectiveness of these programs.

9 **2. Programs Impacted by COVID-19**

10 Q. Did ongoing impacts from COVID-19 result in
11 certain programs not being cost-effective?

12 A. Yes. As previously discussed in my testimony,
13 due to safety concerns, in-home activity for some programs
14 continued to be suspended for large portions of the year,
15 meaning programs that rely on direct install measures or
16 in-home work to achieve savings had reduced opportunities
17 for participation. Due to this limitation, Energy House
18 Calls had a UCT ratio of 0.43 in 2021 and the Multifamily
19 Energy Savings Program did not have any program
20 participation throughout the year.

21 Q. What are Idaho Power's plans concerning the
22 Energy House Calls Program?

23 A. The Company has identified that the likelihood
24 of the Energy House Calls program becoming cost-effective
25 is low due to the contractor costs staying relatively

1 constant, while the value of the savings is expected to
2 decline as savings assumptions and avoided costs are
3 updated. As a result, the Company collaborated with EEAG
4 during 2021 on several ideas and ultimately decided on
5 ending the Energy House Calls program and incorporating the
6 cost-effective duct sealing measure for manufactured homes
7 into the Heating & Cooling Efficiency program. The Company
8 intends to make this change by the end of June 2022 but
9 will work through the remaining customers on the waitlist
10 before ending the program.

11 Q. What are Idaho Power's plans concerning the
12 Multifamily Energy Savings Program?

13 A. The Multifamily Energy Savings program did not
14 see any participation once in-home work resumed in December
15 2021. Additionally, the program is facing an expected
16 decline in Regional Technical Forum ("RTF") savings, which
17 coupled with lower DSM avoided costs, means the program may
18 not achieve cost-effectiveness going forward. After
19 consultation with EEAG, the Company intends to convene a
20 group of external and internal subject matter experts to
21 discuss the issues facing the program, which will include
22 seeking to identify whether cost-effectiveness can be
23 improved or in the alternative, if the Company should
24 consider ending the program. The Company expects to decide
25 on the continuation of the program by August 2022.

1 **3. Home Energy Reports**

2 Q. What were the cost-effectiveness results for
3 the Home Energy Reports program?

4 A. As shown in Exhibit No. 2, the Home Energy
5 Report program achieved a UCT of 0.57 and a TRC of 0.62.
6 The Company also calculated a life cycle cost-effectiveness
7 for the program that results in a UCT of 0.87 and a TRC of
8 0.96. The main drivers contributing to the lower cost-
9 effectiveness ratios are the relatively short measure life
10 of the reports and the realized savings coming in lower
11 than what was initially expected/contracted.

12 Q. What are the Company's plans regarding
13 continuation of the Home Energy Reports program?

14 A. The Company plans to conduct an impact
15 evaluation in 2022, and the evaluation may help inform the
16 Company about any needed changes to the program in the
17 future. Additionally, the RTF has been reviewing how to
18 appropriately calculate cost-effectiveness for behavioral-
19 type programs, and the Company will continue to stay
20 engaged with the RTF and monitor for any updates in
21 guidance to ensure all savings associated with the program
22 are captured and reported. The Company also intends to
23 discuss the program with EEAG and potentially decide on the
24 program's future by the end of 2022. All stakeholder input

1 and cost-effectiveness assumptions will be considered and
2 evaluated in the Company's decision-making process.

3 **4. Small Business Direct Install ("SBDI")**

4 Q. What were the cost-effectiveness results for
5 the SBDI program?

6 A. As shown in Exhibit No. 2, the SBDI program
7 achieved a UCT of 0.99 and a TRC of 1.54. The program was
8 just slightly under 1.0 from the UCT prospective, and this
9 was primarily driven by the evaluation costs the program
10 absorbed this year associated with the 2020 process
11 evaluation that was completed in 2021. If the evaluation
12 costs are removed, the UCT and TRC ratios for the program
13 would be 1.00 and 1.55 respectively. The Company plans to
14 expand the offering to the Capital and Canyon regions of
15 its service area in 2022, which may improve cost-
16 effectiveness. Idaho Power will continue to monitor the
17 SBDI program's cost-effectiveness and will consult with
18 EEAG prior to making any future program decisions.

19 **C. Demand Response Cost-Effectiveness**

20 Q. Does Idaho Power evaluate cost-effectiveness
21 for its three demand response programs?

22 A. Yes, however, benefit/cost ratios are not
23 calculated for the three demand response programs. Instead,
24 the methodology used to determine the cost-effectiveness of
25 the demand response programs compares the annual cost of

1 operating Idaho Power's demand response portfolio to the
2 levelized annual cost of a single 170 MW deferred resource
3 over a 20-year life.⁴ In 2021, the system-wide cost of
4 operating the three demand response programs was
5 approximately \$8.3 million (\$7.5 million of incentives and
6 \$0.8 million of other costs). The amounts attributable to
7 the Idaho-only jurisdiction were \$7.9 million (\$7.1 million
8 of incentives and \$0.8 million of other costs). Idaho Power
9 estimated that if the three programs were dispatched for
10 the full 60 hours allowed, the total costs would have been
11 approximately \$11.1 million on a system-wide basis.

12 Using the Second Amended 2019 IRP, acknowledged by
13 the Commission in Order No. 34959, Case No. IPC-E-19-19,
14 the maximum annual cost of running all three demand
15 response programs for the maximum allowable hours of 60
16 hours should be no more than \$19.6 million, leading Idaho
17 Power to conclude that its three demand response programs
18 were cost-effective in 2021.

19 //
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⁴ Demand response valuation methodology was reached by settlement agreement and approved in Commission Order No. 32923 as part of Case No. IPC-E-13-14.

1 **IV. EVALUATION ACTIVITY OVERVIEW**

2 Q. What is the Company's approach to DSM program
3 evaluation?

4 A. To ensure the ongoing cost-effectiveness of
5 programs through validation of energy savings and demand
6 reduction, and to guide the efficient management of its
7 programs, the Company relies on evaluations by third-party
8 contractors chosen through a competitive bidding process.
9 Idaho Power uses industry-standard protocols, internal
10 analyses, and regional and national studies to inform its
11 internal and external evaluation efforts. The Company has
12 generally conducted impact evaluations every three years,
13 and process evaluations for relatively new programs, or
14 when a program has significant changes. *Supplement 2:*
15 *Evaluation* ("Supplement 2") to the DSM 2021 Annual Report
16 provides additional information regarding how Idaho Power
17 evaluates its programs.

18 Q. How does Idaho Power utilize the evaluations
19 described above?

20 A. Idaho Power uses the results of its
21 evaluations to inform decisions related to program
22 improvement, to compare processes to industry best
23 practices, and to benchmark and validate reported program
24 savings.

25 Q. What evaluation activities took place in 2021?

1 A. In addition to the annual cost-effectiveness
2 analyses that the Company conducts for each program, Idaho
3 Power contracted with several third-party evaluators to
4 conduct impact and process evaluations in 2021. Evaluations
5 conducted by these evaluators were on the following
6 programs:

- 7 • Impact and process evaluations on Heating &
8 Cooling Efficiency and C&I Custom Projects
9 programs.
- 10 • Impact evaluations on the three demand response
11 programs: A/C Cool Credit, Flex Peak, and
12 Irrigation Peak Rewards.
- 13 • Process evaluations on Small Business Direct
14 Install and Home Energy Reports.
- 15 • Additionally, Idaho Power completed internal
16 analyses of the Irrigation Peak Rewards, Flex
17 Peak, and A/C Cool Credit demand response
18 programs.

19 Two of the impact evaluations that were conducted in
20 2021 analyzed reported savings from the 2020 program year
21 (Heating & Cooling Efficiency and C&I Custom Projects).
22 Realization rates were as follows:

- 23 • Heating & Cooling Efficiency: 96.8 percent.
- 24 • C&I Custom Projects: 99.8 percent.

1 The three impact evaluations on the Company's demand
2 response programs analyzed the data from the 2021 season.
3 For the Irrigation Peak Rewards and Flex Peak programs, the
4 third-party evaluator determined that Idaho Power's
5 calculations were appropriate, applied correctly, and the
6 evaluator's results were within approximately 1% of Idaho
7 Power's calculations. For the A/C Cool Credit program,
8 Idaho Power asked the evaluator for a specific
9 recommendation on calculation methodology, which the
10 Company used to report 2021 load reductions.

11 The final reports for these evaluations, and the
12 market effects evaluations conducted by NEEA, are included
13 in Supplement 2 to the DSM 2021 Annual Report.

14 Q. Does Idaho Power have a DSM program evaluation
15 plan for 2022-2023?

16 A. Yes. The evaluation plan is included as
17 Exhibit No. 3 to my testimony and is also included in
18 Supplement 2 to the DSM 2021 Annual Report. In 2022, Idaho
19 Power's evaluation plan includes the following third-party
20 evaluations:

- 21 • Impact and process evaluations for C&I
22 Commercial Energy Saving Kits, C&I New
23 Construction, and C&I Retrofits.
- 24 • Impact evaluation for Home Energy Reports.

1 Q. Is the Company conducting an independent
2 Evaluation, Measurement, and Verification ("EM&V") of NEEA
3 savings and cost-effectiveness?

4 A. Yes. In Order No. 35270, the Commission
5 ordered the Company to conduct an independent EM&V,
6 stating:⁵

7 The Commission notes Staff's concern with NEEA
8 claimed energy savings and directs the Company
9 to conduct an independent EM&V to clarify the
10 NEEA claimed savings. We agree it is
11 concerning for NEEA to claim savings from
12 electrical codes in jurisdictions outside of
13 Idaho. We direct the Company to verify the
14 accuracy of these claimed savings through an
15 independent EM&V. If the savings from
16 interjurisdictional codes and standards
17 cannot be verified, then the method for
18 claiming NEEA savings should be adjusted to
19 remove non-Idaho electrical code savings. If
20 NEEA is no longer cost-effective after an
21 independent EM&V is conducted, the Company
22 should reexamine its continued participation.
23 To the extent possible, the Company may work
24 with other Idaho regulated electric utilities
25 that are conducting a similar EM&V to examine
26 NEEA claimed savings.

27
28 In compliance with the Commission's Order, the
29 Company is currently working with Avista Corporation on a
30 Request for Proposal to hire a third-party that will
31 conduct the EM&V of NEEA savings and cost-effectiveness.
32 The Company expects the evaluation to be completed by the
33 end of 2022. Results will be reported in the 2022 DSM

⁵ Case No. IPC-E-21-04, Order No. 35270 at 9.

1 Annual Report or sooner if the Company determines its
2 participation in NEEA may no longer be cost-effective.

3 **V. STAKEHOLDER INPUT**

4 Q. What is the EEAG?

5 A. In 2002, Idaho Power formed the EEAG to
6 provide input on enhancing existing DSM programs,
7 recommending new energy efficiency measures, and
8 implementing energy efficiency programs. Members include
9 customer representatives from residential, irrigation,
10 commercial, and industrial sectors, and technical experts,
11 as well as representatives for limited-income individuals,
12 environmental organizations, state agencies, county and
13 city governments, the Commission, the Public Utility
14 Commission of Oregon, and Idaho Power.

15 Q. What is the structure of EEAG meetings?

16 A. The EEAG generally meets quarterly in-person
17 at Idaho Power's corporate offices and through webinars as
18 needed. Due to COVID-19 safety protocols, all EEAG meetings
19 were held virtually in 2021, and the Company believes the
20 member participation and input remains strong in the
21 virtual format.

22 The agenda during EEAG meetings is varied, but
23 typically includes: new energy efficiency program ideas,
24 new measure proposals, marketing methods, specific measure
25 details including cost-effectiveness, the status of energy

1 efficiency expenses, Idaho and Oregon Rider funding,
2 program and project updates, and general information on DSM
3 issues. When appropriate, the Company invites experts to
4 speak on evaluations, research, and other topics of
5 interest to enhance EEAG's understanding.

6 Q. How did Idaho Power solicit guidance from the
7 EEAG during the 2021 program year?

8 A. In 2021, the Company held four virtual EEAG
9 meetings and one special webinar, and during these
10 meetings, Idaho Power discussed and requested
11 recommendations on a broad range of DSM issues. As
12 explained in greater detail in the DSM 2021 Annual Report,
13 the list below includes some of the topics Idaho Power
14 worked with the EEAG on for development, design, promotion,
15 or input:

- 16 • Welcome Kit Configuration: The Welcome Kits in
17 the Educational Distributions program were
18 discussed with EEAG, and a new configuration was
19 determined through the collaborative process that
20 improved cost-effectiveness of the kits going
21 forward.
- 22 • Demand Response Filing: Feedback was solicited,
23 and initial proposals were discussed at EEAG
24 before the Company filed its case requesting to
25 modify the three demand response programs (IPC-E-

21-32). EEAG feedback played a welcomed and critical role in the Company's proposal.

- COVID-19 Impacts: The Company provided status updates on affected programs throughout the year. The Company shared how it was making activity modifications and EEAG members provided feedback on offerings effected by the pandemic.
- WAQC Carryover Funds: Idaho Power presented several ideas on how to use the WAQC carryover funds accrued in Idaho and solicited feedback on those options. As a result of those discussions, Idaho Power expects to submit a filing with the Commission seeking tariff modifications as early as Q2 2022.

VI. CONCLUSION

Q. How would you summarize the 2021 DSM program performance compared to previous years?

A. Despite several challenges in 2021, the Company managed to achieve a significant amount of savings beneficial to customers. The residual impacts of COVID-19, the resulting supply chain issues, higher labor and material costs, the maturity of the residential lighting market, and the C&I Custom Projects option having a savings year comparable to 2017 and 2018 as opposed to the record setting years of 2019 and 2020, all played roles in the

1 portfolio's performance. Idaho Power's future plans for DSM
2 programs, as well as current activities the Company is
3 engaged in for 2022 and beyond, are more fully explained on
4 pages 16-18 of the DSM 2021 Annual Report. The Company has
5 shown the ability to collaborate and adapt in unprecedented
6 times to pursue cost-effective energy efficiency. Idaho
7 Power remains committed to continuing its track record of
8 success going forward.

9 Q. Do you believe that the information contained
10 in this testimony and attached exhibits supports a prudence
11 determination for 2021 DSM expenses?

12 A. Yes. The DSM 2021 Annual Report details Idaho
13 Power's DSM offerings in program specific sections. Based
14 on the DSM 2021 Annual Report, the testimony set forth
15 above, and the attached exhibits, Idaho Power respectfully
16 requests the Commission determine that \$35,055,318 was
17 prudently incurred for the acquisition of demand-side
18 resources in 2021.

19 Q. Does this conclude your testimony?

20 A. Yes, it does.

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ATTESTATION OF TESTIMONY

STATE OF IDAHO)
) ss.
County of Ada)

I, Robert Z. Thompson, having been duly sworn to
testify truthfully, and based upon my personal knowledge,
state the following:

I am employed by Idaho Power Company as a Regulatory
Analyst in the Regulatory Affairs Department and am
competent to be a witness in this proceeding.

I declare under penalty of perjury of the laws of
the state of Idaho that the foregoing pre-filed testimony
and exhibits are true and correct to the best of my
information and belief.

DATED this 15th day of March 2022.

Robert Z. Thompson

SUBSCRIBED AND SWORN to before me this 15th day of
March 2022.

Notary Public for Idaho
Residing at Ada County Idaho
My commission expires: 11/02/2024



**BEFORE THE
IDAHO PUBLIC UTILITIES COMMISSION
CASE NO. IPC-E-22-08**

IDAHO POWER COMPANY

THOMPSON, DI

TESTIMONY

EXHIBIT NO. 1

Idaho Power Company
2021 Idaho DSM Expenses and Adjustments for Prudence Filing

Expenses	Rider Expenses	Demand Response Program Incentives Recorded in PCA	Total Expenses
Energy Efficiency/Demand Response			
Residential			
A/C Cool Credit	\$ 420,376	\$ 306,247	\$ 726,623
Easy Savings: Low-Income Energy Efficiency Education	-	-	-
Educational Distributions	433,963	-	433,963
Energy Efficient Lighting	41,438	-	41,438
Energy House Calls	17,375	-	17,375
Heating & Cooling Efficiency Program	600,636	-	600,636
Home Energy Reports	970,197	-	970,197
Home Energy Audit	70,448	-	70,448
Multifamily Energy Savings Program	65,525	-	65,525
Rebate Advantage	164,243	-	164,243
Residential New Construction	246,245	-	246,245
Shade Tree Project	184,680	-	184,680
Weatherization Solutions for Eligible Customers	54,793	-	54,793
Commercial/Industrial			
Custom Projects	7,966,164	-	7,966,164
New Construction	2,673,925	-	2,673,925
Retrofits	3,735,093	-	3,735,093
Commercial Energy-Saving Kits	71,501	-	71,501
FlexPeak Program	101,236	225,617	326,852
Small Business Direct Install	1,052,943	-	1,052,943
Irrigation			
Irrigation Efficiency	2,350,620	-	2,350,620
Irrigation Peak Rewards	239,101	6,601,114	6,840,215
Energy Efficiency/Demand Response Total	\$ 21,460,500	\$ 7,132,978	\$ 28,593,478
Market Transformation			
NEEA	2,828,794	-	2,828,794
Market Transformation Total	\$ 2,828,794	\$ -	\$ 2,828,794
Other Programs and Activities			
Commercial/Industrial Energy Efficiency Overhead	742,155	-	742,155
Energy Efficiency Direct Program Overhead	279,095	-	279,095
Residential Energy Efficiency Education Initiative	470,432	-	470,432
Residential Energy Efficiency Overhead	1,091,701	-	1,091,701
Other Programs and Activities Total	\$ 2,583,383	\$ -	\$ 2,583,383
Indirect Program Expenses			
Energy Efficiency Accounting & Analysis	1,043,916	-	1,043,916
Energy Efficiency Advisory Group	10,479	-	10,479
Special Accounting Entries			
Special Accounting Entries	16,024	-	16,024
Indirect Program Expenses Total	\$ 1,070,419	\$ -	\$ 1,070,419
Total Expenses	\$ 27,943,096	\$ 7,132,978	\$ 35,076,074
Adjustments			
Prior year-end accounting adjustments:			
2020 Audit Adjustment (a)	2,159		2,159
2020 Green Power (b)	(57)		(57)
2020 SBDI: Small Business Direct Install (c)	(15,910)		(15,910)
Current year-end accounting adjustments:			
2021 Residential New Construction (d)	1,356		1,356
2021 Commercial & Industrial (e)	(1,044)		(1,044)
2021 SBDI: Small Business Direct Install (f)	(7,260)		(7,260)
2021 Prudence Filing Total	\$ 27,922,340	\$ 7,132,978	\$ 35,055,318

(a) Oregon Rider expense initially charged to the Idaho Rider in 2020. The correction was made in 2021.

(b) Credit to the Idaho Rider that should have been applied to Green Power, a non-rider program. The correction was made in 2021.

(c) Idaho Rider expense initially charged to the Oregon Rider. The correction was made in 2021.

(d) 2021 Idaho Rider expense initially charged to the Oregon Rider. The correction was made in 2022.

(e) 2021 Oregon Rider expense that was initially charged to the Idaho Rider. The correction was made in 2022.

(f) Duplicate 2021 Idaho Rider transaction. The correction was made in 2022.

**BEFORE THE
IDAHO PUBLIC UTILITIES COMMISSION
CASE NO. IPC-E-22-08**

IDAHO POWER COMPANY

THOMPSON, DI

TESTIMONY

EXHIBIT NO. 2

2021 Cost-Effectiveness Summary by Program, Sector, and Portfolio

Program/Sector	2021 Benefit/Cost Tests		
	Utility Cost Test (UCT)	Total Resource Cost (TRC)	Participant Cost (PCT)
Educational Distributions	2.39	3.10	N/A
Energy House Calls	0.43	0.50	N/A
Heating & Cooling Efficiency Program	1.14	0.36	0.84
Home Energy Reports ¹	0.57	0.62	N/A
Multifamily Energy Savings Program	N/A	N/A	N/A
Rebate Advantage	1.13	0.66	1.97
Residential New Construction	1.64	0.99	2.13
Shade Tree Project	1.07	1.21	N/A
Weatherization Assistance for Qualified Customers	0.19	0.31	N/A
Weatherization Solutions for Eligible Customers	0.15	0.28	N/A
Residential Energy Efficiency Sector²	1.02	0.74	2.61
Commercial Energy-Savings Kits	1.64	2.00	N/A
Custom Projects	2.98	1.32	1.35
New Construction	2.98	2.70	3.72
Retrofits	2.53	1.27	1.70
Small Business Direct Install	0.99	1.54	N/A
Commercial/Industrial Energy Efficiency Sector³	2.74	1.46	1.76
Irrigation Efficiency	3.32	4.49	4.58
Irrigation Energy Efficiency Sector⁴	3.33	4.49	4.58
Energy Efficiency Portfolio⁵	2.17	2.18	2.73

1 Cost-effectiveness based on 2021 savings and expenses. Cost-effectiveness ratios are also calculated for the program life-cycle and are 0.87 and 0.96 for the UCT and TRC respectively.

2 Residential Sector cost-effectiveness excludes WAQC benefits and costs. If included, the UCT, TRC, and PCT are 0.80, 0.63, and 2.41 respectively.

3 Commercial/Industrial Energy Efficiency Sector cost-effectiveness ratios include savings and participant costs from Green Motors Rewinds.

4 Irrigation Energy Efficiency Sector cost-effectiveness ratios include savings and participant costs from Green Motors Rewinds.

5 Portfolio cost-effectiveness excludes WAQC benefits and costs. If included, the UCT, TRC, and PCT are 2.08, 2.13, and 2.72 respectively.

**BEFORE THE
IDAHO PUBLIC UTILITIES COMMISSION
CASE NO. IPC-E-22-08**

IDAHO POWER COMPANY

THOMPSON, DI

TESTIMONY

EXHIBIT NO. 3

Customer Relations and Energy Efficiency 2022-2023 Program Evaluation Plan

	2023	2022	2021	2020	2019	2018	2017	2016	2015 ¹	2014	2013	2012	2011	2010
Residential Energy Efficiency Programs														
Educational Distributions				I/P										
Energy House Calls					I/P								I	P
Heating & Cooling Efficiency Program			I/P				I/P				P	I		P
Home Energy Audit	I/P						I			P				
Home Energy Reports		I		P										
Multifamily Energy Savings Program	I/P					I/P								
Rebate Advantage				I				I/P					I	
Residential New Construction Pilot Program	I				I/P									
Shade Tree Project	I				O					P				
Weatherization Assistance for Qualified Customers	O			O						O	P	I		
Weatherization Solutions for Eligible Customers	O			O						O	P	I		
Commercial/Industrial Energy Efficiency Programs														
Commercial Energy-Saving Kits		I/P												
Custom Projects			I/P			I	P			I/P			I	P
New Construction		I/P			I		P	I				I		P
Retrofits		I/P			I		P	I			P	I		P
Small Business Direct-Install	I			P										
Irrigation Energy Efficiency Programs														
Irrigation Efficiency Rewards	I			I/P				I/P		P/O	I/P			P
Demand-Response Programs														
A/C Cool Credit	O	O	I	O	I	O	O	I	I	I	O	P	O	
Flex Peak Program	O	O	I/O	O	O	O	O	I/O	I/O		P/O		O	
Irrigation Peak Rewards	O	O	I/O	O	O	O	O	O	I/O	O	O		O	

¹ Energy efficiency programs evaluated in 2015 have since been eliminated or combined into another program.

Evaluation Type: I = Impact, P = Process, O = Other	
Program not yet in existence	