#### BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF THE APPLICATION	)		
OF IDAHO POWER COMPANY FOR A	)		
DETERMINATION OF 2022 DEMAND-	)	CASE NO.	IPC-E-23-10
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, "Electric
- 22 Utility Fundamentals and Insights," an electric utility
- 23 course offered by Western Energy Institute, and "Electric
- 24 Rates Advanced Course," an electric utility ratemaking
- 25 course offered through Edison Electric Institute.

- 1 Q. Please describe your work experience with
- 2 Idaho Power.
- 3 A. In 2020, I was hired as a Regulatory Analyst
- 4 in the Company's Regulatory Affairs Department. My primary
- 5 responsibilities include supporting activities associated
- 6 with demand-side management ("DSM") as well as rate design
- 7 for the small general service, large general secondary
- 8 service, and irrigation customer classes.
- 9 Q. What is the purpose of your testimony in this
- 10 case?
- 11 A. The purpose of my testimony is to present the
- 12 Company's request for a determination that \$39,896,437 of
- 13 DSM expenses for the acquisition of demand-side resources
- 14 in 2022 was prudently incurred. This amount includes
- 15 \$31,585,110 funded in 2022 by the Idaho Energy Efficiency
- 16 Rider ("Rider") and \$8,311,328 of demand response program
- 17 incentive payments funded through base rates and tracked
- 18 annually through the Power Cost Adjustment ("PCA").
- 19 My testimony will: (1) provide a review of 2022 DSM
- 20 program performance, (2) discuss 2022 DSM expenses and
- 21 adjustments, (3) provide an overview of the cost-
- 22 effectiveness results for 2022, (4) review program
- 23 evaluation efforts, and (5) describe the input stakeholders
- 24 provided during the year.

#### 1 I. 2022 DSM PROGRAM PERFORMANCE

- Q. What is Idaho Power's focus when evaluating
- 3 program performance?
- 4 A. Idaho Power takes its responsibility of
- 5 prudently managing customer-funded DSM activities
- 6 seriously, and the Company believes it is important to
- 7 provide its customers with the maximum value from these
- 8 activities. The Company's actions in 2022, and the content
- 9 of the Demand-Side Management 2022 Annual Report ("DSM 2022
- 10 Annual Report"), Attachment 1 to the Application filed in
- 11 this proceeding, provide evidence supporting the
- 12 conscientious work Idaho Power employees made toward using
- 13 customers' funds wisely to support DSM activities.
- 14 Q. Please provide an overview of Idaho Power's
- 15 DSM activities in 2022.
- 16 A. On a system-wide basis, Idaho Power offered a
- 17 broad portfolio of energy efficiency and demand response
- 18 programs available to all customer segments, and the
- 19 Company also participated in market transformation efforts
- 20 through the Northwest Energy Efficiency Alliance ("NEEA").
- 21 In addition, the Company offered several educational and
- 22 behavioral initiatives including the Residential Energy
- 23 Efficiency Education Initiative, seasonal contests, the
- 24 School Cohort, and the continuation of the Water and
- 25 Wastewater Cohort.

- 1 The Company leveraged its Energy Efficiency Advisory
- 2 Group ("EEAG") to solicit input and feedback on ways to
- 3 identify opportunities to increase program effectiveness,
- 4 delivery, and marketing. A summary of Idaho Power's 2022
- 5 DSM programs is provided in Table 1 below.

## 6 Table 1. 2022 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 Efficient Lighting	Energy Efficiency	ID/OR
Energy House Calls	Energy Efficiency	ID/OR
Heating & Cooling Efficiency Program	Energy Efficiency	ID/OR
Home Energy Audit	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

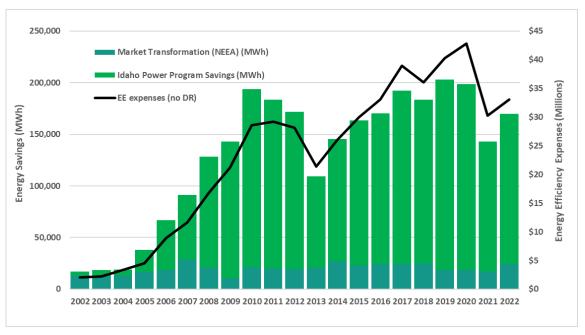
- 1 Table 1 illustrates the broad availability of
- 2 programs offered by Idaho Power to its customers in energy
- 3 efficiency, demand response, and education. Idaho Power's
- 4 energy efficiency portfolio was cost-effective, resulting
- 5 in a 2.02 benefit/cost ratio when evaluated from a Utility
- 6 Cost Test ("UCT") perspective, a 1.43 benefit/cost ratio
- 7 when evaluated from a Total Resource Cost ("TRC") test
- 8 perspective, and a 2.01 benefit/cost ratio when evaluated
- 9 from a Participant Cost Test ("PCT") perspective.
- 10 The DSM 2022 Annual Report provides details for each
- 11 program, which include: a program description, 2022
- 12 performance results, program activities, cost-effectiveness
- 13 ratios, marketing activities, customer satisfaction,
- 14 upcoming 2023 plans, and evaluation results if applicable.
- 15 Filed in conjuction with the DSM 2022 Annual Report are:
- 16 Supplement 1: Cost Effectiveness ("Supplement 1"), which
- 17 provides detailed cost-effectiveness data, and Supplement
- 18 2: Evaluation ("Supplement 2"), which provides copies of
- 19 the Company's evaluation, reports, and research conducted
- 20 in 2022.

#### 21 Energy Efficiency

- Q. What level of incremental annual energy
- 23 efficiency savings was achieved in 2022?
- 24 A. On a system-wide basis, Idaho Power achieved
- 25 169,889 megawatt-hours ("MWh") of incremental annual energy

- 1 efficiency savings in 2022. This value includes 145,440 MWh
- 2 from Idaho Power's energy efficiency programs and an
- 3 estimated 24,448 MWh<sup>1</sup> of energy efficiency market
- 4 transformation savings through NEEA initiatives. Chart 1
- 5 below shows the incremental annual energy efficiency
- 6 savings in MWh from 2002 to the current year. Also shown in
- 7 this chart are the total energy efficiency expenses for
- 8 each year in millions of dollars.

9 Chart 1. Incremental Annual Energy Efficiency Savings 10 (MWh) and Energy Efficiency Expenses (\$ millions) 2002-2022



12 Note: 2022 NEEA market-transformation savings are estimated.

Q. Did Idaho Power meet the energy efficiency

targets included in its 2021 Integrated Resource Plan

15 ("IRP")?

11

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<sup>&</sup>lt;sup>1</sup> Because Idaho Power will not receive final 2022 savings from NEEA until the second quarter 2023, the NEEA-attributable savings is an estimate provided to Idaho Power by NEEA.

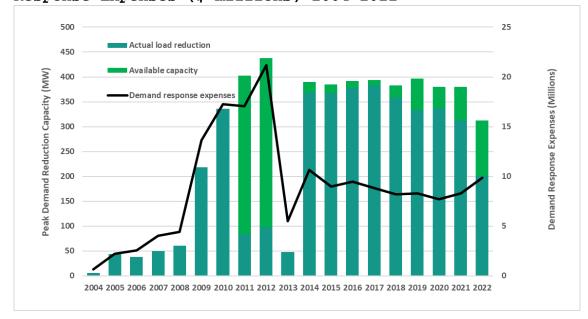
- 1 A. Yes. In 2022, Idaho Power achieved 19.4
- 2 average megawatt-hours ("aMW") of incremental energy
- 3 efficiency savings, including NEEA estimated energy
- 4 savings, which exceeded the economic technical achievable
- 5 potential included in the 2021 IRP of 16 aMW. The 2022
- 6 savings represent enough energy to power approximately
- 7 14,900 average homes in Idaho Power's service area for one
- 8 year.
- 9 O. How did 2022 savings compare to 2021?
- 10 A. Overall portfolio savings increased by 26,968
- 11 MWh, or 19 percent, year-over-year compared to 2021 with
- 12 the main drivers being the Commercial & Industrial ("C&I")
- 13 Energy Efficiency Program Custom Projects, New
- 14 Construction, and Retrofits options. The projects within
- 15 these options can vary greatly in size, scale, and
- 16 completion, which can cause changes in overall portfolio
- 17 savings performance annually. These three program options
- 18 combined drove 53 percent of the increase in annual
- 19 incremental savings. A couple other notable drivers were
- 20 increases in savings associated with Home Energy Reports,
- 21 Energy Efficient Lighting, and Educational Distributions.
- 22 As noted in last year's prudence request, the dip in
- 23 savings experienced between 2020 and 2021 was largely
- 24 driven by a reduction in Custom Projects. 2022 portfolio
- 25 results were positively impacted by several projects within

- 1 that program option being completed within the program
- 2 year. The Company anticipates the overall portfolio will
- 3 see lower incremental savings in the coming years due to
- 4 Energy Independence and Security Act of 2007 ("EISA")
- 5 lighting standards being fully adopted in 2023.
- 6 Q. Does the Company engage in customer education
- 7 and outreach activities for which it cannot quantify or
- 8 report savings?
- 9 A. Yes. The Company engages in significant
- 10 educational awareness activities and marketing efforts that
- 11 are likely to result in energy savings experienced by
- 12 customers but are not quantified or claimed as part of
- 13 Idaho Power's annual savings. These efforts are designed to
- 14 reach all customer segments and are more fully explained
- 15 throughout the DSM 2022 Annual Report. In 2022, this
- 16 included activity such as: holding virtual and in-person
- 17 technical trainings and workshops with customers, producing
- 18 the Energy@Work and Irrigation newsletters, participating
- 19 in several different types of agricultural shows, hosting
- 20 or participating in vendor workshops promoting irrigation
- 21 system efficiency, publishing residential energy efficiency
- 22 guides which showcased behavioral changes to save energy,
- 23 attending other outreach activities such as home shows, and
- 24 supporting the Integrated Design Lab.
- 25 //

#### 1 Demand Response

- Q. What level of capacity was available from
- 3 Idaho Power's demand response programs in 2022?
- 4 A. The total available capacity of Idaho Power's
- 5 three demand response programs (A/C Cool Credit, Flex Peak
- 6 Program, and Irrigation Peak Rewards) was approximately 312
- 7 megawatts ("MW"). This value represents the total enrolled
- 8 MW from participants adjusted for an expected maximum
- 9 realization rate.
- 10 Q. What level of non-coincident demand reduction
- 11 was provided?
- 12 A. The Company's demand response programs
- 13 provided actual non-coincident demand reduction of 200 MW
- 14 during the 2022 program season. The 200 MW maximum load
- 15 reduction is less than 312 MW of total demand response
- 16 program capacity because the three demand response programs
- 17 are not always dispatched together during a single event
- 18 day and the four irrigation groups are also not always
- 19 dispatched coincidentally. Chart 2 below reflects the
- 20 annual available peak demand reduction capacity and actual
- 21 load reduction in MW since 2004 and the associated annual
- 22 expenses in millions of dollars.
- 23 //
- 24 //
- 25 //

Chart 2. Peak Demand Reduction Capacity (MW) and Demand Response Expenses (\$ millions) 2004-2022



II. 2022 DSM EXPENSES AND ADJUSTMENTS

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

A. In the delivery of energy efficiency, demand response, and market transformation programs, Idaho Power expended \$31,585,110 of Rider funds and paid \$8,311,328 in demand response program incentives, for a total of \$39,896,437 spent on demand-side resource acquisition in 2022. Idaho Power requests that the 2022 Rider-funded DSM expenses, and the 2022 demand response program incentives recovered through base rates and tracked through the PCA, be reviewed together for a prudence determination. Exhibit No. 1 to my testimony, 2022 Idaho DSM Expenses and Adjustments for Prudence Filing, shows a breakout of these

expenses by program, customer sector, and funding source.

- 1 This year's Rider-funded DSM expenses increased
- 2 \$3,662,770, or 13 percent, compared to the DSM expenses
- 3 reviewed in last year's prudence case, Case No. IPC-E-22-
- 4 08. As described more fully above, the increase in 2022
- 5 expenses was primarily driven by an increase in large
- 6 projects participating in the C&I Program Custom Projects,
- 7 New Construction, and Retrofits options with total expenses
- 8 in those three options amounting to \$16,301,141 or
- 9 \$1,925,959 more compared to 2021.
- 10 Q. Please compare the dollar amounts in Exhibit
- 11 No. 1 to your testimony with Appendix 2, 2022 DSM expenses
- 12 by funding source (dollars), of the DSM 2022 Annual Report.
- 13 A. For clarity and ease of understanding, Exhibit
- 14 No. 1 ties to Appendix 2, which is found on page 186 of the
- 15 DSM 2022 Annual Report. The first column of Appendix 2
- 16 labeled "Idaho Rider" and the first column of Exhibit No. 1
- 17 labeled "Rider Expenses" match at the row labeled "Total
- 18 Expenses" in Exhibit No. 1 and "Grand Total" in Appendix 2
- in the amount of \$31,673,550. All values in Exhibit No. 1
- 20 represent DSM expenses for the Idaho service area only.
- 21 Three prior year-end and three current year-end accounting
- 22 adjustments were necessary to accurately arrive at the
- 23 total 2022 expenses for purposes of the prudence
- 24 determination. These six adjustments are listed in Exhibit
- 25 No. 1 under the Adjustments section as 2021 Commercial &

- 1 Industrial, 2021 Residential New Construction, 2021 SBDI:
- 2 Small Business Direct Install ("SBDI"), 2022 Commercial &
- 3 Industrial Overhead, 2022 Residential Energy Efficiency
- 4 Education, and 2022 Residential Energy Efficiency Overhead.
- 5 Q. Please describe the prior year-end accounting
- 6 adjustments included in Exhibit No. 1.
- 7 A. The first adjustment of \$1,044 was associated
- 8 with the Commercial & Industrial program where an expense
- 9 should have been charged to the Oregon Rider instead of the
- 10 Idaho Rider in 2021. The correction to reduce the Idaho
- 11 Rider was made in 2022, and therefore \$1,044 needs to be
- 12 added back to avoid understating the 2022 prudence request.
- The second adjustment of \$1,356 is associated with
- 14 Idaho activity for the Residential New Construction Program
- 15 that was incorrectly charged to the Oregon Energy
- 16 Efficiency Rider in 2021. The correction adding the expense
- 17 to the Idaho Rider was made in 2022, and therefore \$1,356
- 18 needs to be subtracted from the 2022 prudence request
- 19 because it was already deemed prudent by the Commission in
- 20 the 2021 request.
- 21 The final adjustment of \$7,260 associated with SBDI
- 22 corrected a duplicate transaction. An amount of \$7,260 of
- 23 Idaho SBDI expenses had originally been charged to the
- 24 Oregon Rider. When this was discovered in 2021, the Company
- 25 transferred the amount to the Idaho Rider, but the

- 1 transaction was duplicated adding the amount twice. The
- 2 duplicate transaction was identified and reversed in 2022,
- 3 and therefore, \$7,260 needs to be added back to avoid
- 4 understating the 2022 prudence request.
- 5 Q. Please describe the current year-end
- 6 accounting adjustments included in Exhibit No. 1.
- 7 A. Three accounting adjustments to the Rider for
- 8 2022 were identified through Idaho Power's review of end of
- 9 year expenses and the corrections were made after the 2022
- 10 year-end financial books were closed. The first adjustment
- 11 results in a reduction of \$6,998, which was related to
- 12 expenses associated with Commercial & Industrial Overheads
- 13 that should have been charged to O&M, rather than the Idaho
- 14 Rider.
- 15 The second adjustment requires inclusion of \$1,289
- 16 associated with the Residential Energy Efficiency Education
- 17 that was initially charged to O&M instead of the Idaho
- 18 Rider.
- 19 Finally, a reduction of \$89,680 was necessary to
- 20 remove a program administration fee the Company paid in
- 21 2022 that was refunded in 2023 due to services not being
- 22 rendered.
- 23 O. What amount of Rider-funded employee DSM-
- 24 related labor expense did the Company incur in 2022?

- 1 A. The 2022 total Rider-funded DSM employee labor
- 2 expense incurred by the Company was \$3,392,286.
- 3 O. What amount of 2022 DSM-related labor is the
- 4 Company requesting be funded through the Rider?
- 5 A. The Company is requesting \$3,381,085 in 2022
- 6 DSM labor expense be collected through the Rider. This
- 7 amount is appropriately recovered through the Rider as it
- 8 is equal to the Commission's authorized labor cost cap
- 9 detailed in Order Nos.  $34874^2$  and  $35270.^3$  The actual 2022
- 10 DSM labor expense was \$11,201 over the cap as detailed in
- 11 Table 2 below.

Table 2. Labor Expense Calculation

2021 Total Actual Labor Expense	\$ 3,205,211
2021 FTEs* ÷	 23.34
2021 Actual Average Wage per FTE	\$ 137,334
2% Cap x	 1.02
2022 Maximum Average Wage per FTE	\$ 140,081
2022 FTEs* x	24.14
2022 Maximum Allowed Labor Expense	\$ 3,381,085
2022 Total Actual Labor Expense -	\$ 3,392,286
Amount Over Maximum Allowed Labor Expense	\$ (11,201)

\*23.34 and 24.14 are rounded values.

12 13

14 //

<sup>&</sup>lt;sup>2</sup> In the Matter of Idaho Power Company's Application for a Determination of 2019 Demand-Side Management Expenses as Prudently Incurred, Case No. IPC-E-20-15, Order No. 34874, p. 5 (Dec. 18, 2020).

<sup>&</sup>lt;sup>3</sup> In the Matter of Idaho Power Company's Application for a Determination of 2020 Demand-Side Management Expenses as Prudently Incurred, Case No. IPC-E-21-04, Order No. 35270, p. 9 (Dec. 27, 2021).

- 1 O. What was the year-end 2022 balance of the
- 2 Rider?
- 3 A. The Rider account balance on December 31,
- 4 2022, had a negative, or under-collected, balance of
- 5 \$3,767,319 compared to an under-collected balance of
- 6 \$6,937,705 on December 31, 2021. Table 3 below shows the
- 7 January 2022 beginning balance, funding plus accrued
- 8 interest, expenses, and the ending balance as of December
- 9 31, 2022.

## 10 Table 3. Idaho Energy Efficiency Rider (January-December 11 2022)

Idaho Energy Efficiency Rider	
2022 Beginning Balance	\$ (6,937,705)
2022 Funding plus Accrued Interest as of 12/31/22	 34,843,936
Total 2022 Funds	27,906,231
2022 Expenses as of 12/31/22	 (31,673,550)
Ending Balance as of 12/31/22	\$ (3,767,319)

12

#### 13 III. 2022 COST-EFFECTIVENESS OVERVIEW

- Q. What is Idaho Power's overall goal when it
- 15 comes to DSM cost-effectiveness tests?
- 16 A. Idaho Power strives to ensure that DSM funds
- 17 collected from customers are utilized to support the
- 18 pursuit of cost-effective energy efficiency and demand
- 19 response programs, with the limited exception of certain
- 20 policy considerations. This goal is achieved by applying a
- 21 multi-step process. Prior to the actual implementation of
- 22 energy efficiency or demand response programs, Idaho Power

- 1 performs a preliminary cost-effectiveness analysis to
- 2 assess whether a potential program design or measure will
- 3 be cost-effective from the perspective of customers as well
- 4 as the Company. Idaho Power measures cost-effectiveness
- 5 under three tests: the UCT, the TRC test, and the PCT. A
- 6 review of each test allows for an economic assessment of
- 7 the life-cycle costs and benefits of a DSM investment from
- 8 the perspective of DSM program participants, Idaho Power,
- 9 and non-participating customers.
- 10 Idaho Power also reviews the cost-effectiveness
- 11 results for each program and measure on an annual basis to
- 12 determine whether a program should continue or be modified
- 13 so it remains cost-effective on an ongoing basis. If a
- 14 measure or program is identified as non-cost-effective,
- 15 Idaho Power seeks EEAG input before making its
- 16 determination on modifying, continuing, or discontinuing an
- 17 offering.
- 18 The cost-effectiveness test methodologies and
- 19 assumptions are described in more detail in the first pages
- 20 of Supplement 1, included in Attachment 1 to the
- 21 Application in this proceeding.
- 22 Q. Does Idaho Power believe its application of
- 23 the standard economic tests is consistent with Commission
- 24 directives?

- 1 A. Yes. Idaho Power believes its application of
- 2 the three economic tests is consistent with prior
- 3 Commission directives, as described in Order No. 33365:4
- 4 We thus find it reasonable for the Company to 5 continue screening potential programs using 6 each test as a quideline, and to advise us on 7 how the Company's programs fare under each 8 test. When the Company ultimately seeks to 9 prudent investment recover its 10 programs, however, we believe the Company may 11 (but need not exclusively) emphasize the UCT-12 and that test's focus on Company-controlled 13 benefits and costs-to argue whether 14 programs were cost-effective. As always, the 15 Company ultimately must persuade us that its 16 program investments were prudent under the 17 totality of the circumstances.

18

- 19 Because Idaho Power must ultimately demonstrate to
- 20 the Commission that its program investments were prudent
- 21 under "the totality of the circumstances", the Company
- 22 continues to evaluate performance from the three
- 23 perspectives.

#### 24 A. 2022 Cost-Effectiveness Results

- Q. What were the results of the 2022 cost-
- 26 effectiveness analyses?
- 27 A. Exhibit No. 2 to my testimony, 2022 Cost-
- 28 Effectiveness Summary by Program, Sector, and Portfolio,
- 29 shows the results of the UCT, TRC test, and PCT for every

 $<sup>^4</sup>$  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 (Aug. 28, 2015).

- 1 energy efficiency program aggregated by sector and for the
- 2 overall portfolio. As shown in Table 4, the overall DSM
- 3 Portfolio achieved benefit/cost ratios greater than 1.0 for
- 4 each of the three cost-effectiveness tests. All three of
- 5 the program sectors achieved benefit/cost ratios of greater
- 6 than or equal to 1.0 from the UCT and PCT perspectives with
- 7 the Residential Sector having a TRC less than 1.0.

8 Table 4. 2022 Benefit/Cost by Sector & Portfolio

Sector	Utility Cost Test (UCT)	Total Resource Cost (TRC) Test	Participant Cost Test (PCT)
Residential*	1.00	0.76	2.89
Commercial/Industrial	2.71	1.34	1.71
Irrigation	2.69	2.54	2.66
Portfolio*	2.02	1.43	2.01

<sup>\*</sup>Does not include Weatherization Assistance for Qualified Customers Program

- 10 Q. Did the Company quantify the Residential
- 11 Sector and DSM Portfolio cost-effectiveness, including the
- 12 costs and benefits of the Weatherization Assistance for
- 13 Qualified Customers ("WAQC") program?
- 14 A. Yes. Table 5 below shows the cost-
- 15 effectiveness of the Residential Sector and the Overall DSM
- 16 Portfolio with and without the WAQC program included.

17 Table 5. Residential and Portfolio Cost-Effectiveness with

#### 18 and without WAQC

Sector	WAQC I	Not Inclu	ıded	WAÇ	C Includ	ıded			
Sector	UCT	TRC	PCT	UCT	TRC	PCT			
Residential	1.00	0.76	2.89	0.84	0.67	2.56			
Portfolio	2.02	1.43	2.01	1.94	1.40	2.00			

- 1 While the WAQC program remains non-cost-effective
- 2 from an economic perspective, it provides real savings to
- 3 customers that would otherwise likely be unable to afford
- 4 to weatherize their homes and offers health and safety
- 5 benefits to customers in need that are not quantified
- 6 through the economic tests.
- 7 Q. What assumptions were utilized to calculate
- 8 the sector and portfolio cost-effectiveness for 2022?
- 9 A. Idaho Power relies on research conducted by
- 10 third parties to obtain savings and cost assumptions for
- 11 various measures. The Company fixes savings assumptions
- 12 when budgets and goals are established for the next
- 13 calendar year unless codes and standards change, or program
- 14 updates necessitate a need to use updated savings. The
- 15 remaining inputs are obtained from the Company's IRP
- 16 planning process. Because the 2021 IRP was not acknowledged
- 17 at the time 2022 DSM program planning occurred, Idaho Power
- 18 used the avoided costs from the acknowledged 2019 Second
- 19 Amended IRP.
- 20 To calculate the sector cost-effectiveness, Idaho
- 21 Power includes the benefits and costs associated with
- 22 programs that produce quantifiable energy savings. The
- 23 portfolio cost-effectiveness is the sum of all energy
- 24 efficiency activities, including those that do not have
- 25 savings associated with them, such as overhead expenses.

- 1 Q. What are the results of specific program cost-
- 2 effectiveness?
- A. As reflected in Exhibit No. 2 to my testimony,
- 4 2022 Cost-Effectiveness Summary by Program, Sector, and
- 5 Portfolio, on an individual program basis, 9 of the 17
- 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 2022 Annual Report.
- 14 O. Did Idaho Power calculate cost-effectiveness
- 15 for each measure within each energy efficiency program it
- 16 offers?
- 17 A. Yes. In 2022, Idaho Power evaluated the
- 18 benefits and costs of 300 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 2022 Annual Report.
- 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 2022 Annual Report.

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

- 13 1. Income Qualified Weatherization
- 14 Q. Please explain what drivers influence the
- 15 cost-effectiveness results for the WAQC and Weatherization
- 16 Solutions for Eligible Customers ("Solutions") programs?
- 17 A. The WAQC and Solutions programs provide real
- 18 and substantial per home savings, but due to the costs of
- 19 comprehensive whole-house weatherization, it is difficult
- 20 for the value of the savings to outweigh the costs. The
- 21 weatherization services provided through the WAQC program
- 22 are consistent with the Idaho State Weatherization
- 23 Assistance Program guidelines, and both the WAQC and
- 24 Solutions programs are offered at no charge to the
- 25 participant. Please refer to pages 94 and 103 in the DSM

- 1 2022 Annual Report for the savings, cost, and the number of
- 2 homes weatherized in 2022.
- 3 O. Does Idaho Power plan to continue offering the
- 4 WAQC and Solutions programs in the future?
- 5 A. Yes. While the Company has identified that the
- 6 programs are not cost-effective under the UCT, unless the
- 7 Commission directs otherwise, Idaho Power will continue to
- 8 offer them to the Company's limited-income customers on an
- 9 ongoing basis. The Company will also continue to consult
- 10 the EEAG and weatherization managers who oversee the
- 11 weatherization work to look for ways to improve outreach
- 12 and the cost-effectiveness of these programs as
- 13 opportunities are available.

#### 2. Discontinued Programs in 2022

- 15 Q. Which programs did the Company discontinue in
- 16 2022?
- 17 A. The Company discontinued both the Energy House
- 18 Calls and Multifamily Energy Savings Programs on June 30,
- 19 2022 and December 31, 2022, respectively due to the
- 20 expectation that these programs will not be cost-effective
- 21 as currently structured going forward. After evaluating the
- 22 programs internally using Regional Technical Forum ("RTF")
- 23 savings and 2021 IRP avoided costs, as well as
- 24 incorporating input from its EEAG, the Company determined
- 25 it was prudent to end the programs at this time. The

- 1 Company will continue to evaluate potential program
- 2 structures with the objective of increasing the
- 3 availability of cost-effective offerings to customers with
- 4 manufactured homes and multifamily dwellings. The Company
- 5 discussed its plans for the programs at the February 2022,
- 6 May 2022, and August 2022 EEAG meetings.

#### 7 3. Programs to be Discontinued in 2023

- 8 Q. Is the Company planning on discontinuing any
- 9 of its programs in 2023?
- 10 A. Yes. the Company is discontinuing both its
- 11 SBDI and Commercial Energy-Savings Kits ("CSKs") Programs
- 12 in 2023 on March 31, 2023 and June 30, 2023 respectively.
- 13 The SBDI program had a defined time-period in which the
- 14 program was offered based on the contractual agreement with
- 15 the third-party vendor completing the work. All of the
- 16 program savings come from lighting measures, and the
- 17 program was originally intended to be offered for a limited
- 18 time from November 2019 to December 2022 (it was extended
- 19 to March 2023 due to delays caused by COVID-19). The
- 20 program was successfully utilized by customers throughout
- 21 the entirety of the Company's service area. The Company
- 22 does not expect a renewed contract with the existing vendor
- 23 would result in a cost-effective program, and as a result,
- 24 it is not proposing to continue the offering at this time.

- 1 The Company discussed its plans at the November 2022 and
- 2 February 2023 EEAG meetings.
- The Company will also discontinue its CSKs in 2023.
- 4 Idaho Power discussed the cost-effectiveness challenges
- 5 facing the offering at the August 2021, November 2021, and
- 6 November 2022 EEAG meetings. In 2021, the RTF deactivated
- 7 the workbooks and zeroed out the savings for both pre-rinse
- 8 spray valves and advanced power strips. As a result, very
- 9 little differentiated the three CSK configurations for
- 10 restaurants, retail, and offices. Based on feedback from
- 11 EEAG at the November 2021 meeting, the Company began
- 12 offering a streamlined kit in 2022.
- The savings for CSKs is largely based on the assumed
- 14 installation rates for each kit item. The 2022 evaluation
- 15 recommended the Company reconsider the inclusion of the
- 16 exit signs retrofit kits and the aerators due to low
- 17 install rates and the associated lower savings. The Company
- 18 had already reduced the number of exit sign retrofit kits
- 19 and aerators when designing the streamlined kit option but
- 20 did not remove them completely. Additionally, the
- 21 evaluators recommended the removal of the LED lightbulbs
- 22 from the kit. In June 2023, EISA lighting standards will
- 23 take effect, at which point certain lighting savings will
- 24 no longer be claimed by utility programs. The updated
- 25 standards have a significant impact on the CSKs, as the

- 1 kits offer two different kinds of LED lightbulbs. Once the
- 2 LED bulbs are removed, the only items remaining in the kit
- 3 would be one-exit sign retrofit kit, one-kitchen aerator,
- 4 and one-bathroom aerator which already have low
- 5 installation rates. Also, the savings for the faucet
- 6 aerators are dependent on the commercial customer having
- 7 electric water heat. As a result, the Company has concluded
- 8 the CSKs will not be cost-effective going forward, leading
- 9 to its decision to end the CSK offering on June 30, 2023.
- 10 The Company discussed its plans at the February 2023 EEAG
- 11 meeting.

#### 12 4. Home Energy Reports

- 13 Q. What were the cost-effectiveness results for
- 14 the Home Energy Reports program?
- 15 A. As shown in Exhibit No. 2, the Home Energy
- 16 Report program achieved a one-year UCT of 0.71 and a TRC of
- 17 0.79,5 which was an improvement from the 2021 one-year UCT
- 18 and TRC ratios of 0.57 and 0.62 respectively. The Company
- 19 also calculated a life cycle cost-effectiveness for the
- 20 program that results in a UCT of 1.17 and a TRC of 1.29.
- 21 The life cycle cost-effectiveness uses savings generated
- 22 through 2026.

-

 $<sup>^{5}</sup>$  UCT and TRC ratios include costs associated with the 2022 impact evaluation. UCT would be 0.74 and TRC would be 0.81 without evaluation expenses.

- 1 Q. What are the Company's plans regarding
- 2 continuation of the Home Energy Reports program?
- 3 A. The Company believes the program will be cost
- 4 effective in 2023 because of the additional capacity
- 5 benefits that are included in the 2021 IRP avoided costs
- 6 where this year's cost-effectiveness was calculated using
- 7 the 2019 Second Amended IRP avoided costs. Additionally,
- 8 the evaluation results showed the overlap percentage used
- 9 to calculate savings to avoid double counting with similar
- 10 programs savings was less than initially thought.
- 11 Therefore, program savings had a realization rate over one
- 12 hundred percent as shown later in my testimony in the
- 13 Evaluation Section.
- 14 O. What other factors will the Company consider
- 15 when evaluating the cost-effectiveness of the Home Energy
- 16 Reports program?
- 17 A. As I noted, the program is cost-effective when
- 18 evaluated over the life cycle of the program. Typically,
- 19 Idaho Power evaluates cost effectiveness based on the value
- 20 associated with incremental savings achieved in the program
- 21 year and savings expected through the duration of the
- 22 measure life. A behavioral program, like Home Energy
- 23 Reports, has a "measure life" of 1-year, however, it is
- 24 expected that savings will continue to accrue (at a
- 25 degraded level) for at least 2-years after the program

- 1 concludes. Accordingly, Idaho Power will continue to
- 2 evaluate the appropriateness of reporting this program's
- 3 cost-effectiveness on a life-cycle basis.

#### 4 5. Heating and Cooling Efficiency Program

- 5 Q. What were the cost-effectiveness results for
- 6 the Heating and Cooling Efficiency program?
- 7 A. As shown in Exhibit No. 2, the Heating and
- 8 Cooling Efficiency Program achieved a UCT of 0.98 and a TRC
- 9 of 0.30. The program was just slightly under 1.0 from the
- 10 UCT prospective, which was primarily driven by the
- 11 evaluation costs the program absorbed associated with the
- 12 2021 impact and process evaluation that was completed in
- 13 2022. If the evaluation costs are removed, the UCT ratio
- 14 for the program would be 1.00.
- 15 Q. Does the Company anticipate seeking any
- 16 modifications to the program aimed at improving cost-
- 17 effectiveness?
- 18 A. Yes. The Company anticipates making program
- 19 changes in 2023 that it expects will have a positive impact
- 20 on cost-effectiveness. These modifications may include
- 21 removal of some measures, modifications to adjust measures,
- 22 and incentive adjustments to measures. The Company will
- 23 consult with EEAG prior to making any future program
- 24 decisions.
- 25 //

#### 1 C. Demand Response Cost-Effectiveness

- 2 Q. Does Idaho Power evaluate cost-effectiveness
- 3 for its three demand response programs?
- 4 A. Yes. The methodology approved in Order No.
- 5 353366 is used to determine the cost-effectiveness of the
- 6 demand response ("DR") programs and sets the maximum
- 7 avoided cost value. In accordance with the approved
- 8 methodology, the 2022 cost-effectiveness threshold for
- 9 demand response is \$82.91 per kW year.
- 10 Q. How was the \$82.91 determined?
- 11 A. Using the approved method, the avoided cost
- 12 calculation for the demand response programs is as follows:
- 13 (Levelized Fixed Costs Additional Benefits)
- 14 x Effective Load Carrying Capacity ("ELCC") of Annual
- 15 Demand Response Capacity Compared to Proxy Resource
- 16 = \$ per kW year Demand Response Avoided Costs
- 17 Each of the three components have been updated and
- 18 are:
- 19 1. From the 2021 IRP, the 2022 levelized fixed
- 20 cost value of a Simple-Cycle Combustion Turbine ("SCCT")
- 21 was determined to be \$131.60 per kW per year.
- 22 2. From the 2021 IRP, to determine the

<sup>&</sup>lt;sup>6</sup> In the Matter of Idaho Power Company's Application for Approval to Modify its Demand Response Programs, Case No. IPC-E-21-32, Order No. 35336, p. 9-10 (Mar. 4, 2022).

- 1 additional ancillary benefits provided by the SCCT compared
- 2 to DR, an analysis was performed where DR was replaced with
- 3 an equivalent SCCT and the fixed costs of the SCCT were
- 4 removed from the model. The result of this analysis showed
- 5 there were no additional benefits associated with the SCCT
- 6 because the cost of the fuel and SCCT plant O&M required to
- 7 meet the demand response demand.
- 8 3. The updated ELCC of approximately 312 MW of DR
- 9 capacity compared to a SCCT utilizing 2021 IRP assumptions
- 10 is 63 percent.
- 11 (\$131.60 \$0.00) \* 63% =
- 12 \$82.91 per kW year Demand Response Avoided Cost
- 13 Additional details of the methodology are included
- 14 in Supplement 1.
- 15 Q. What were the total and per kW costs of the
- 16 Company's demand response programs?
- 17 A. In 2022, the system-wide cost of operating the
- 18 three demand response programs was approximately \$9.9
- 19 million (\$8.7 million of incentives and \$1.2 million of
- 20 other costs). The amounts attributable to the Idaho-only
- 21 jurisdiction were \$9.4 million (\$8.3 million of incentives
- 22 and \$1.1 million of other costs). Table 6 below shows the
- 23 actual 2022 dollar per kW year costs for each program and
- 24 the overall demand response portfolio. Idaho Power
- 25 estimated that if the three programs were dispatched for

- 1 the full 60 hours allowed, the total costs would have been
- 2 approximately \$12.0 million on a system-wide basis.

3 Table 6. Demand Response Program 2022 \$ per kW year

Program	\$ per kW year
Residential A/C Cool Credit	\$30.99
C&I Flex Peak	\$23.34
Irrigation Peak Rewards	\$40.97
Total Demand Response Portfolio	\$38.42

4

- 5 Q. Were the demand response programs cost-
- 6 effective?
- 7 A. Yes. All three of the Company's demand
- 8 response programs, as well as the demand response
- 9 portfolio, had a cost per kW less than the 2022 threshold
- 10 of \$82.91, meaning the programs were cost-effective.

#### 11 IV. EVALUATION ACTIVITY OVERVIEW

- 12 O. What is the Company's approach to DSM program
- 13 evaluation?
- 14 A. To ensure the ongoing cost-effectiveness of
- 15 programs through validation of energy savings and demand
- 16 reduction, and to guide the efficient management of its
- 17 programs, the Company utilizes evaluations conducted by
- 18 third-party contractors chosen through a competitive
- 19 bidding process. Idaho Power uses industry-standard
- 20 protocols, internal analyses, and regional and national
- 21 studies to inform its internal and external evaluation
- 22 efforts. The Company has generally conducted impact
- 23 evaluations every three years, and process evaluations for

- 1 relatively new programs, or when a program has significant
- 2 changes. Supplement 2 to the DSM 2022 Annual Report
- 3 provides additional information regarding how Idaho Power
- 4 evaluates its programs.
- 5 Q. How does Idaho Power utilize the evaluations
- 6 described above?
- 7 A. Idaho Power uses the results of its
- 8 evaluations to inform decisions related to program
- 9 improvement, to compare processes to industry best
- 10 practices, and to benchmark and validate reported program
- 11 savings.
- 12 Q. What evaluation activities took place in 2022?
- 13 A. In addition to the annual cost-effectiveness
- 14 analyses that the Company conducts for each program, Idaho
- 15 Power contracted with several third-party evaluators to
- 16 conduct impact and process evaluations in 2022. Evaluations
- 17 conducted by these evaluators were on the following
- 18 programs:
- 19 Impact and process evaluations on Commercial
- 20 Energy-Savings Kits, C&I New Construction, and
- 21 C&I Retrofits programs.
- Impact evaluation on Home Energy Reports.
- 23 In addition to these third-party evaluations, Idaho
- 24 Power completed internal analyses of the Irrigation Peak

- 1 Rewards, Flex Peak, and A/C Cool Credit demand response
- 2 programs.
- The impact evaluations that were conducted in 2022
- 4 analyzed reported savings from the 2021 program year.
- 5 Realization rates were as follows:
- Commercial Energy-Savings Kits: 43.82 percent.
- 7 C&I New Construction Program: 102.5 percent.
- C&I Retrofits Program: 96.4 percent.
- Home Energy Reports: 109.65 percent.
- 10 The final reports for these evaluations, and the
- 11 market effects evaluations conducted by NEEA, are included
- 12 in Supplement 2 to the DSM 2022 Annual Report.
- 13 Q. Does Idaho Power have a DSM program evaluation
- 14 plan for 2023-2024?
- 15 A. Yes. The evaluation plan is included as
- 16 Exhibit No. 3 to my testimony and is also included in
- 17 Supplement 2 to the DSM 2022 Annual Report. In 2023, Idaho
- 18 Power's evaluation plan includes the following third-party
- 19 evaluations:
- Impact and process evaluations for Home Energy
- 21 Audit.
- Impact evaluations for Residential New
- 23 Construction Program, Shade Tree Project, Small
- 24 Business Direct-Install, and Irrigation
- 25 Efficiency Rewards.

- 1 Q. Has the Company completed the Commission's
- 2 directive to complete an independent Evaluation,
- 3 Measurement, and Verification ("EM&V") of NEEA savings?
- 4 A. In August 2022, the Company contracted with an
- 5 independent evaluator to verify the accuracy of NEEA
- 6 claimed savings, as directed by the Commission in Order No.
- 7 35720.7 In part, the scope of the evaluation includes
- 8 clarifying the savings NEEA claims, verifying the
- 9 allocation of savings to NEEA member utilities, and
- 10 determining the cost-effectiveness of the savings for the
- 11 member utilities based on the utilities' DSM avoided cost.
- 12 Idaho Power reviewed an initial draft report in
- 13 February 2023 and has asked the evaluator to clarify
- 14 several items prior to finalizing the report. The Company
- 15 expects to receive the final report in the coming weeks and
- 16 will develop a plan of action based on the final
- 17 recommendations and findings identified in the report.
- 18 Because the report was not complete prior to the
- 19 preparation of this case, Idaho Power anticipates filing a
- 20 supplemental application by no later than the end of June
- 21 2023, where it will file the report with the Commission in

<sup>&</sup>lt;sup>7</sup> In the Matter of Idaho Power Company's Application for a Determination of 2020 Demand-Side Management Expenses as Prudently Incurred, Case No. IPC-E-21-04, Order No. 35270, p. 9 (Dec. 27, 2021).

- 1 this docket. At that time, Idaho Power will identify its
- 2 near-term plan associated with addressing any findings.

#### 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 as well as technical
- 11 experts, 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.
- 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. All EEAG meetings were held virtually in 2022, and
- 19 the Company believes the member participation and input
- 20 remained strong in the virtual format.
- 21 The agenda during EEAG meetings is varied, but
- 22 typically includes: program and project updates, new energy
- 23 efficiency program or measure proposals, marketing methods,
- 24 specific measure details including cost-effectiveness, the
- 25 status of energy efficiency expenses, and general

- 1 information on DSM issues. When appropriate, the Company
- 2 invites experts to speak on evaluations, research, and
- 3 other topics of interest to enhance EEAG's understanding.
- 4 How did Idaho Power solicit quidance from the Ο.
- EEAG during the 2022 program year? 5
- 6 In 2022, the Company held four virtual EEAG Α.
- meetings, and during these meetings, Idaho Power discussed 7
- 8 and requested recommendations on a broad range of DSM
- 9 issues. As explained in greater detail in the DSM 2022
- 10 Annual Report, the list below includes some of the topics
- Idaho Power worked with the EEAG on for development, 11
- design, promotion, or input: 12
- 13 • Energy Efficient Lighting: The Company will
- 14 continue offering the Lighting Buydown Program
- through June 30, 2023. After that date, the 15
- 16 Department of Energy OE will begin enforcing
- 17 federal EISA lighting standards with financial
- penalties to those retailers that continue to 18
- 19 sell inefficient lightbulbs. This allows the
- 20 Company and customers to realize lighting savings
- 2.1 as long as possible.
- 22 • Heating & Cooling Efficiency: Idaho Power began
- 23 offering two new measures through the program on
- 24 July 1, 2022 that provide a cash incentive to
- customers who install a central A/C or a ground 25

- source heat pump. The incentives apply to both
- 2 existing homes and new construction.
- Welcome Kits: Idaho Power continued to contract
- 4 with a third-party vendor to distribute energy
- 5 efficiency kits to the company's first-time
- 6 customers. With EEAG collaboration, the kit
- 7 contents were adjusted to improve cost-
- 8 effectiveness.

#### 9 VI. CONCLUSION

- 10 Q. Do you believe that the information contained
- 11 in this testimony and attached exhibits supports a prudence
- 12 determination for 2022 DSM expenses?
- 13 A. Yes. The DSM 2022 Annual Report details Idaho
- 14 Power's DSM offerings in program specific sections. Based
- on the DSM 2022 Annual Report, the testimony set forth
- 16 above, and the attached exhibits, Idaho Power respectfully
- 17 requests the Commission determine that \$39,896,437 was
- 18 prudently incurred for the acquisition of demand-side
- 19 resources in 2022.
- Q. Does this conclude your testimony?
- 21 A. Yes, it does.

1	ATTESTATION OF TESTIMONY
2 3 4 5	STATE OF IDAHO ) ) ss. County of Ada )
6 7	I, Robert Z. Thompson, having been duly sworn to
8	testify truthfully, and based upon my personal knowledge,
9	state the following:
10	I am employed by Idaho Power Company as a Regulatory
11	Analyst in the Regulatory Affairs Department and am
12	competent to be a witness in this proceeding.
13	I declare under penalty of perjury of the laws of
14	the state of Idaho that the foregoing pre-filed testimony
15	and exhibits are true and correct to the best of my
16	information and belief.
17	DATED this $15^{\text{th}}$ day of March 2023.
18	Robert J. Thompson
19 20	Robert Z. Thompson
21 22	SUBSCRIBED AND SWORN to before me this 15 <sup>th</sup> day of
23	March 2023.
24	apres
25 26 27 28 29 30	CHRISTY LYN DAVENPORT Notary Public - State of Idaho Commission Number 52970 My Commission Expires Sep 10, 2026  Notary Public for Idaho Residing at Ada County Idaho My commission expires: 09/10/2026

# BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION CASE NO. IPC-E-23-10

## **IDAHO POWER COMPANY**

THOMPSON, DI
TESTIMONY
EXHIBIT NO. 1

#### **Idaho Power Company** 2022 Idaho DSM Expenses and Adjustments for Prudence Filing

				Demand Response Program Incentives	
Expenses		Rider Expenses		Recorded in PCA	Total Expenses
Energy Efficiency/Demand Response					
Residential					
A/C Cool Credit	\$	429,722	\$	375,320 \$	805,042
Easy Savings: Low-Income Energy Efficiency Education		-		-	-
Educational Distributions		1,061,898		-	1,061,898
Energy Efficient Lighting		505,430		-	505,430
Energy House Calls		36,734		-	36,734
Heating & Cooling Efficiency Program		636,597		-	636,597
Home Energy Reports		964,709		-	964,709
Home Energy Audit		184,650		-	184,650
Multifamily Energy Savings Program		32,634		-	32,634
Rebate Advantage		157,746		-	157,746
Residential New Construction		236,962		-	236,962
Shade Tree Project		128,673		-	128,673
Weatherization Solutions for Eligible Customers		198,198		-	198,198
Commercial/Industrial					
Custom Projects		8,753,084		-	8,753,084
New Construction		2,762,412		-	2,762,412
Retrofits		4,785,645		-	4,785,645
Commercial Energy-Saving Kits		21,604		-	21,604
FlexPeak Program		84,582		283,651	368,233
Small Business Direct Install		1,317,820		, <u>-</u>	1,317,820
Irrigation					
Irrigation Efficiency		1,950,122		-	1,950,122
Irrigation Peak Rewards		569,467		7,652,357	8,221,825
Energy Efficiency/Demand Response Total	\$	24,818,689	\$	8,311,328	
Market Transformation		,,		-,- , ,	,,-
NEEA		2,650,440		-	2,650,440
Market Transformation Total	\$	2,650,440	\$	- \$	2,650,440
Other Programs and Activities					
Commercial/Industrial Energy Efficiency Overhead		826,911		-	826,911
Energy Efficiency Direct Program Overhead		296,204		-	296,204
Residential Energy Efficiency Education Initiative		287,839		-	287,839
Residential Energy Efficiency Overhead		1,528,355		-	1,528,355
Other Programs and Activities Total	\$	2,939,309	\$	- \$	2,939,309
Indirect Program Expenses					
Energy Efficiency Accounting & Analysis		1,236,470		-	1,236,470
Energy Efficiency Advisory Group		15,575		-	15,575
Special Accounting Entries					
Special Accounting Entries		13,068		-	13,068
Indirect Program Expenses Total	\$	1,265,112		- \$	
Total Expenses	\$	31,673,550	\$	8,311,328 \$	39,984,878
Adjustments					
Prior year-end accounting adjustments:					
2021 Commercial & Industrial (a)		1,044			1,044
2021 Commercial & Middstriat (a) 2021 Residential New Construction (b)		(1,356)			(1,356)
2021 Nesidential New Construction (b) 2021 SBDI: Small Business Direct Install (c)		7,260			7,260
Current year-end accounting adjustments:		1,200			1,200
		(6,000)			/c 000
2022 Commercial & Industrial Overhead (d)		(6,998)			(6,998)
2022 Residential Energy Efficiency Education (e)		1,289			1,289
2022 Residential Energy Efficiency Overhead (f)		(89,680)			(89,680)
2022 Prudence Filing Total	1 <b>\$</b>	31,585,110	\$	8,311,328 \$	39,896,437
ZOZZ FIGUETICE FIIITY TOTAL	. φ	31,303,110	Ψ	0,311,320 \$	, 33,030,431

<sup>(</sup>a) 2021 Oregon Rider expense that was initially charged to the Idaho Rider. The correction was made in 2022.

<sup>(</sup>b) 2021 Idaho Rider expense initially charged to the Oregon Rider. The correction was made in 2022. (c) Duplicate 2021 Idaho Rider transaction. The correction was made in 2022.

<sup>(</sup>d) 2022 0&M expense initially charged to the Idaho RIder. The correction was made in 2023.

(e) 2022 Idaho Rider expense initially charged to 0&M. The correction was made in 2023.

<sup>(</sup>f) Program administration fee charged to the Idaho Rider in 2022 and refunded in 2023.

# BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION CASE NO. IPC-E-23-10

## **IDAHO POWER COMPANY**

THOMPSON, DI
TESTIMONY
EXHIBIT NO. 2

#### 2022 Cost-Effectiveness Summary by Program, Sector, and Portfolio

	2022 Benefit/Cost Tests						
	Utility Cost Test	Total Resource	Participant Cost				
Program/Sector	(UCT)	Cost (TRC)	(PCT)				
Educational Distributions	1.31	1.62	N/A				
Energy Efficient Lighting	1.68	1.52	4.35				
Energy House Calls <sup>1</sup>	0.70	0.77	N/A				
Heating & Cooling Efficiency Program	0.98	0.30	0.76				
Home Energy Reports <sup>2</sup>	0.71	0.79	N/A				
Multifamily Energy Savings Program <sup>3</sup>	0.49	0.68	N/A				
Rebate Advantage	1.18	0.54	1.56				
Residential New Construction	1.45	0.84	1.70				
Shade Tree Project	1.02	1.21	N/A				
Weatherization Assistance for Qualified Customers	0.17	0.32	N/A				
Weatherization Solutions for Eligible Customers	0.15	0.23	N/A				
Residential Energy Efficiency Sector⁴	1.00	0.76	2.89				
Commercial and Industrial Energy Efficiency Program							
Custom Projects	2.88	1.12	1.17				
New Construction	4.25	3.64	5.41				
Retrofits	2.01	1.11	1.61				
Commercial Energy-Savings Kits	0.78	0.87	N/A				
Small Business Direct Install	0.95	1.50	N/A				
Commercial/Industrial Energy Efficiency Sector <sup>5</sup>	2.71	1.34	1.71				
Irrigation Efficiency	2.69	2.54	2.66				
Irrigation Energy Efficiency Sector <sup>6</sup>	2.69	2.54	2.66				
Energy Efficiency Portfolio <sup>7</sup>	2.02	1.43	2.01				

<sup>1</sup> Program closed June 30, 2022

<sup>2</sup> Cost-effectiveness based on 2022 savings and expenses. Cost-effectiveness ratios are also calculated for the program life-cycle and are 1.17 and 1.29 for the UCT and TRC respectively.

<sup>3</sup> Program closed December 31, 2022

<sup>4</sup> Residential sector cost-effectiveness excludes WAQC benefits and costs. If included, the UCT, TRC, and PCT would be 0.84, 0.67, and 2.56 respectively.

<sup>5</sup> Commercial/Industrial Energy Efficiency Sector cost-effectiveness ratios include savings and participant costs from Green Motors Rewinds.

<sup>6</sup> Irrigation Energy Efficiency Sector cost-effectiveness ratios include savings and participant costs from Green Motors Rewinds.

<sup>7</sup> Portfolio cost-effectiveness excludes WAQC benefits and costs. If included, the UCT, TRC, and PCT would be 1.94, 1.40, and 2.00 respectively.

# BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION CASE NO. IPC-E-23-10

## **IDAHO POWER COMPANY**

THOMPSON, DI
TESTIMONY
EXHIBIT NO. 3

### Customer Relations and Energy Efficiency 2022-2023 Program Evaluation Plan

6, 200														
	2023	2022	2021	2020	2019	2018	2017	2016	2015 <sup>1</sup>	2014	2013	2012	2011	2010
Residential Energy Efficiency Programs							•							
Educational Distributions				I/P										
Energy Efficient Lighting														
Energy House Calls					I/P								1	Р
Heating & Cooling Efficiency Program			I/P				I/P				Р	- 1		Р
Home Energy Audit	I/P						1			Р				
Home Energy Reports		ı		Р										
Multifamily Energy Savings Program	I/P					I/P								
Rebate Advantage				I				I/P					I	
Residential New Construction Pilot Program	- 1				I/P									
Shade Tree Project	1				0					Р				
Weatherization Assistance for Qualified Customers	0			0						0	Р	I		
Weatherization Solutions for Eligible Customers	0			0						0	Р	I		
Commercial/Industrial Energy Efficiency Programs														
Commercial Energy-Saving Kits		I/P												
Custom Projects			I/P			I	Р			I/P			I	Р
New Construction		I/P			I		Р	I				I		Р
Retrofits		I/P					Р				Р			Р
Small Business Direct-Install	l l			Р										
Irrigation Energy Efficiency Programs														
Irrigation Efficiency Rewards	<u> </u>			I/P				I/P		P/O	I/P			Р
Demand-Response Programs														
A/C Cool Credit	0	0	I	0		0	0	1	1	1	0	Р	0	
Flex Peak Program	0	0	I/O	0	0	0	0	I/O	I/O		P/O		0	
Irrigation Peak Rewards	0	0	I/O	0	0	0	0	0	I/O	0	0		0	
1														

<sup>&</sup>lt;sup>1</sup> 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	