

DECEMBER • 2021



2021  
**IRP**  
INTEGRATED RESOURCE PLAN

A VIEW  
FROM ABOVE

APPENDIX B: **DSM ANNUAL REPORT**

## **SAFE HARBOR STATEMENT**

This document may contain forward-looking statements, and it is important to note that the future results could differ materially from those discussed. A full discussion of the factors that could cause future results to differ materially can be found in Idaho Power's filings with the Securities and Exchange Commission.

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## EXECUTIVE SUMMARY

Idaho Power, through its energy efficiency programs, its customer education programs, and its focus on the customer experience, fully supports energy efficiency and demand response and encourages its customers to use energy wisely.

Idaho Power's portfolio of energy efficiency program savings remained strong in 2020 with the second highest savings since the Idaho Energy Efficiency Rider (Idaho Rider) began in 2002. This was accomplished even though many programs were affected by COVID-19 restrictions. The 2020 savings of 196,809 megawatt-hour (MWh), including the estimated savings from the Northwest Energy Efficiency Alliance (NEEA), decreased by 6,493 MWh compared to the 2019 savings of 203,302 MWh—a 3% year-over-year decrease. The savings from Idaho Power's energy efficiency programs alone, excluding NEEA savings, was 180,818 MWh in 2020 and 184,934 MWh in 2019—a 2% year-over-year decrease. The 2020 savings represent enough energy to power almost 17,000 average homes in Idaho Power's service area for one year.

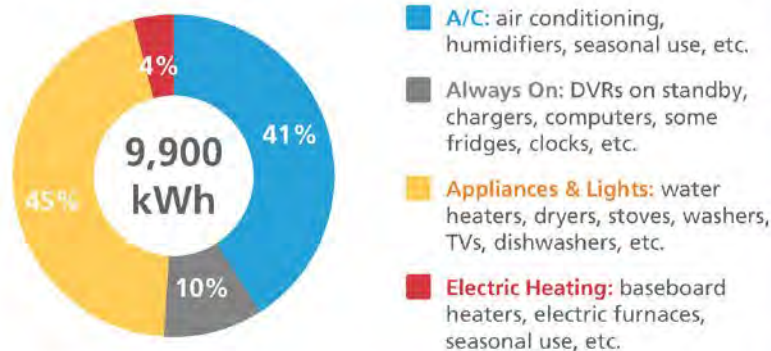
In 2020, the company's energy efficiency portfolio was cost effective from both the total resource cost (TRC) test and the utility cost test (UCT) perspectives with ratios of 2.08 and 2.71, respectively. The portfolio was also cost-effective from the participant cost test (PCT) ratio, which was 2.45.

Idaho Power successfully operated all three of its demand response programs in 2020. The total demand response capacity from the company's programs was 366 megawatts (MW) with actual load reduction of 336 MW. Energy efficiency and demand response are important aspects of Idaho Power's resource planning process and were included in the 2019 IRP.

Total expenditures from all funding sources of demand-side management (DSM) activities were \$50.6 million in 2020—\$40.4 million from the Idaho Rider, \$8.4 million from Idaho Power base rates, and \$1.8 million from the Oregon Rider. DSM program funding comes from the Idaho and Oregon Riders, Idaho Power base rates, and the annual power cost adjustment (PCA).

Idaho Power transitioned the Home Energy Report Pilot into a full program in June of 2020. On average, program participants are providing statistically significant savings at between 50 to 363 kWh fewer kWh annually per home than their control group counterparts. When viewed in aggregate, the estimated savings for all program participants was 10,428 MWh in 2020.

### Your electricity use breakdown:



Calculated estimates based on an analysis of your electricity consumption data.

From April 1 to June 30:

**41%** of your electricity use was for

**Air Conditioning**

Remember July and August are typically the hottest months of the year.

Last summer your home's A/C use was significant. Turn over for tips to save on cooling costs.

Figure 1. A portion of the Home Energy Report (HER) customers receive

Another way Idaho Power educated residential customers on energy savings related to energy-efficient behavior was to produce an *Energy Efficiency Guide* in 2020 with information on energy efficiency equipment and ways to use energy wisely. This guide was distributed in April primarily as an insert in 20 local newspapers. In 2020, despite the pandemic challenges, Idaho Power's education and outreach energy advisors (EOEA) delivered over 300 presentations with energy-savings messages to audiences of all ages.

In 2020, the Integrated Design Lab (IDL) scheduled 20 technical training lunches which were conducted virtually due to COVID-19 restrictions. Ten sessions were coordinated directly with architecture and engineering firms and organizations and ten were available to the public; a total of 366 architects, engineers, designers, project managers, and others attended.

The IDL also maintains an Energy Resource Library (ERL) with tools for measuring and monitoring energy use and provides training on how to use them. The library includes over 900 individual pieces of equipment, adding 34 new tools in 2020.

Idaho Power continued to provide training to its commercial and industrial customers in 2020, delivering equivalent of 5 full days of technical training over 12 virtual sessions.

Idaho Power provided five irrigation workshops and participated in two additional vendor hosted workshops promoting irrigation system efficiency. The company also participated in, and had an exhibit at, four agricultural trade shows prior to COVID-19 restrictions. The trade shows were the Idaho Irrigation Equipment Association Winter Show, Eastern Idaho Agriculture Expo, Western Idaho Agriculture Expo, and the Agri Action Ag Show.

The company promotes significant customer educational, outreach and awareness activities, promotion of codes and standards, and marketing efforts that are not quantified or claimed as part of Idaho Power's annual DSM savings, but are likely to result in energy savings experienced by the customer and accruing to Idaho Power's electric system over time.

This *Demand-Side Management 2020 Annual Report* provides a review of the company's DSM activities and finances throughout 2020 and outlines Idaho Power's plans for future DSM activities. This report satisfies the reporting requirements set out in Idaho Public Utilities Commission's (IPUC) Order Nos. 29026 and 29419. Idaho Power will provide a copy of the report to the Public Utility Commission of Oregon (OPUC) under Oregon Docket UM 1710.



## INTRODUCTION

Idaho Power, through its energy efficiency programs, customer education programs, and focus on the customer experience, fully supports energy efficiency and demand response and encourages its customers to use energy wisely.

In 2020, Idaho Power continued to pursue all cost-effective energy efficiency across its service area. Idaho Power focuses on the customer experience when providing information and programs that ensure customers have opportunities to learn about their energy use, how to use energy wisely, and how to participate in programs. This year was challenging due to COVID-19. However where possible, Idaho Power modified DSM activity to prioritize the safety of customers, contractors, and Idaho Power staff, while still balancing opportunities to maintain program performance. Idaho Power also worked with its Energy Efficiency Advisory Group (EEAG) to adjust programs impacted by COVID-19 and to identify opportunities for increased effectiveness in program delivery and marketing. Much of the company's customer in-home or on-location work was suspended in the early months of the pandemic. The company transitioned to virtual meetings, and leveraged technology to maintain participation. As state health and safety-guidelines were developed, some on-location work was able to resume at various businesses. The tables below summarize the status of individual programs and how they were affected by COVID-19 protocols.

**Table 1. Impact of COVID-19 on residential programs**

<b>Programs</b>	<b>Status</b>
A/C Cool Credit	Idaho Power reduced cycling %
Easy Savings: Low-Income Energy Efficiency Education	In-home work suspended
Energy Efficient Lighting	Program not affected
Energy House Calls	In-home work suspended
Energy-Saving Kits	Program not affected
Heating & Cooling Efficiency Program	Verifications conducted over the phone
Home Energy Audit Program	In-home work suspended
Home Energy Reports Program	Program not affected
Multifamily Energy Savings Program	In-home work suspended
Oregon Residential Weatherization	Audits resumed with customer approval
Rebate Advantage	Program not affected
Residential New Construction Program	Program not affected
Shade Tree Project	Public events postponed
Simple Steps, Smart Savings™	Program not affected
Student Energy Efficiency Kits (SEEK)	Program affected by school attendance & closures
Weatherization Assistance for Qualified Customers (WAQC)	State agencies resumed work early summer
Weatherization Solutions for Eligible Customers	In-home work suspended
Welcome Kits	Program not affected

**Table 2. Impact of COVID-19 on commercial, industrial, and irrigation programs**

Programs	Status
Commercial and Industrial (C&I) Custom Projects	On-location work affected
New Construction	Some on-location work affected
Retrofits	On-location work affected
Commercial Energy-Savings Kits	Program affected by small business closures
Flex Peak Program	Program affected by customer's ability to participate
Oregon Commercial Audits	On-location work suspended March-November
Small Business Direct Install	On-location work suspended March-October
Irrigation Efficiency Rewards—Custom	On-location work affected
Irrigation Efficiency Rewards—Menu	Program not affected
Irrigation Peak Rewards	Electrician work affected

This report focuses on Idaho Power's demand-side management (DSM) activities and results for 2020 and previews planned activities for 2021. The appendices provide detailed information on the company's DSM activities and detailed financial information for 2020. *Supplement 1: Cost-Effectiveness* provides detailed cost-effectiveness data and *Supplement 2: Evaluation* provides copies of Idaho Power's evaluations, reports, and research conducted in 2020.

Idaho Power's main objectives for DSM programs are to achieve prudent, cost-effective energy efficiency savings and to provide useful and cost-effective demand response programs as determined by the Integrated Resource Plan (IRP) planning process. Idaho Power strives to offer customers valuable programs and information to help them wisely manage their energy use.

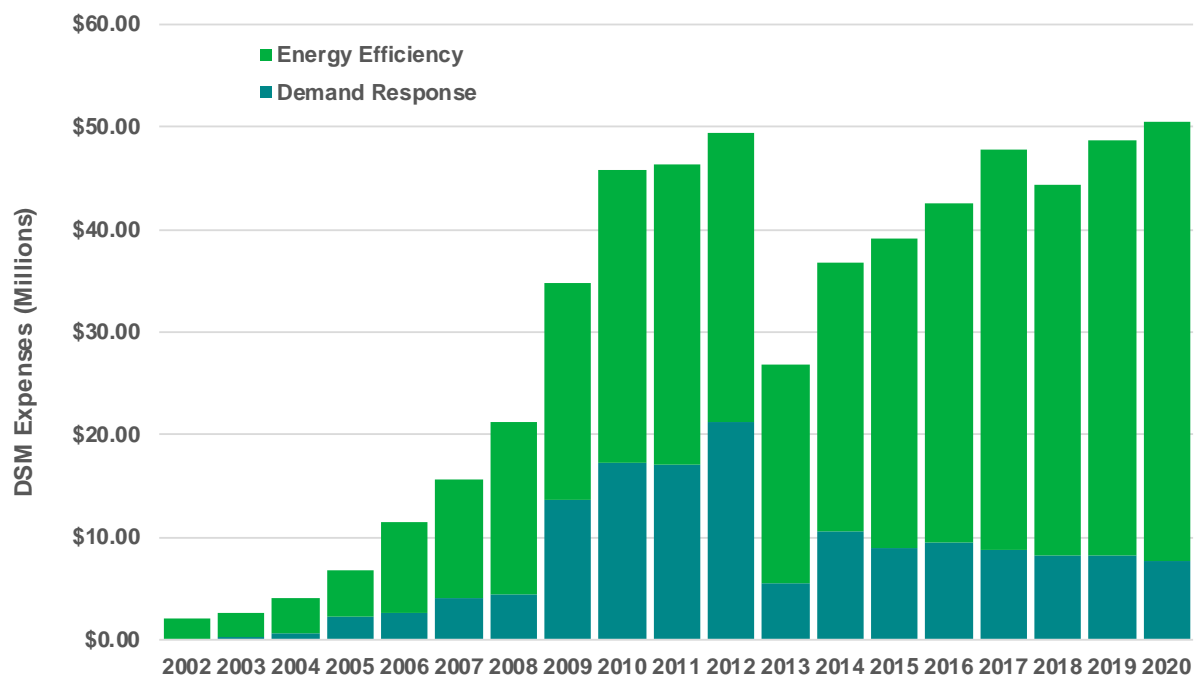
The company achieves energy and demand savings objectives in both its Idaho and Oregon service areas through the careful management of current programs, the offering of new cost-effective programs, and through customer outreach and education. Idaho Power has been locally operated since 1916 and serves more than 585,000 customers throughout a 24,000-square-mile area in southern Idaho and eastern Oregon.

**Figure 2. Idaho Power service area map**

Idaho Power’s energy efficiency programs are available to all customer sectors in Idaho Power’s service area and focus on reducing energy use by identifying homes, buildings, equipment, or components for which an energy efficient design, replacement, or repair can achieve energy savings. Some energy efficiency programs include behavioral components. For example, the Residential Energy Efficiency Education Initiative (REEEI), the seasonal contests, the School Cohort, Water and Wastewater Cohorts, and the HER Program all are primarily focused on behavioral energy savings.

Savings from energy efficiency programs are measured in terms of energy savings on a kilowatt hour (kWh) or megawatt-hour (MWh) basis. These programs usually supply energy savings throughout the year at different times depending on the energy efficiency measure. Idaho Power shapes these savings based on the end use to estimate energy reduction at specific times of the day and year. The company’s energy efficiency offerings include programs in residential and commercial new construction (lost opportunity savings); residential and commercial retrofit applications; and irrigation and industrial system improvement or replacement. Idaho Power’s incentives are offered to its irrigation, industrial, large-commercial, small business, government, and school customers to promote a wide range of energy-saving projects.

Energy efficiency and demand response funding comes from Idaho Power base rates, the Idaho and Oregon Energy Efficiency Riders (Rider), and the annual power cost adjustment (PCA) in Idaho. Idaho incentives for the company’s demand response programs are recovered through base rates and the annual PCA, while Oregon demand response incentives are funded through the Oregon Rider. Total expenditures on DSM-related activities from all funding sources were \$50.6 million in 2020 (Figure 3).



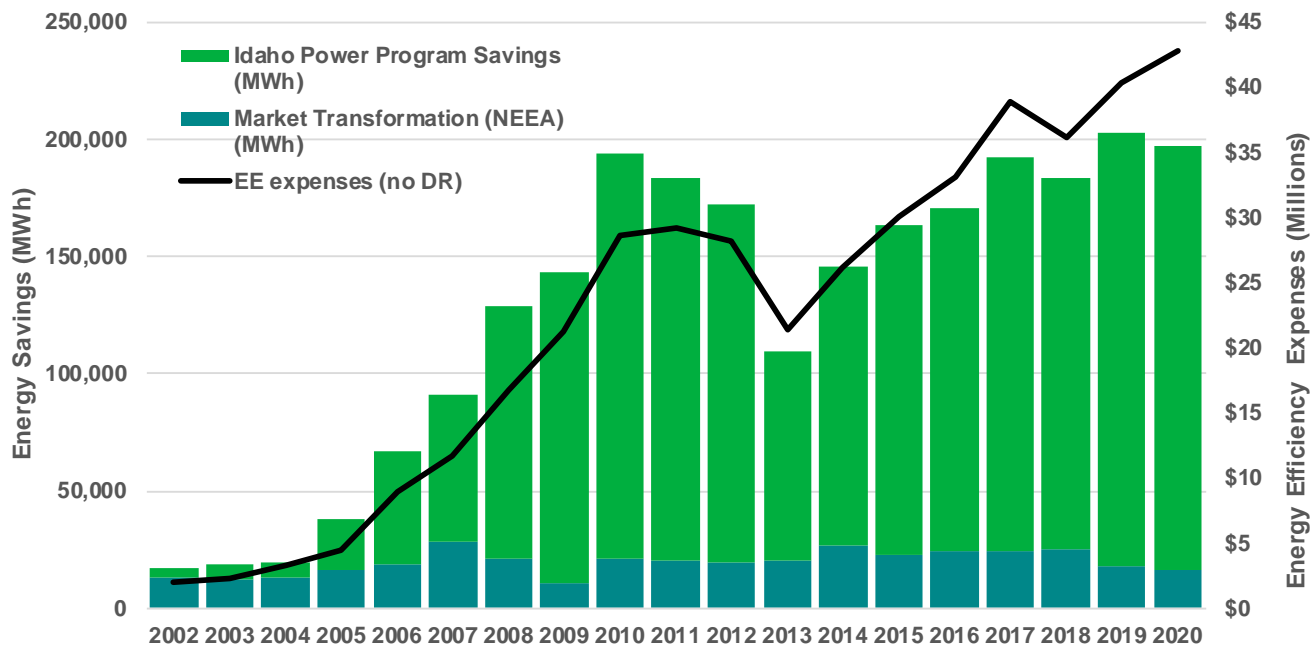
**Figure 3. DSM expense history by program type, 2002–2020 (millions [\$])**

Idaho Power started its modern demand response programs in 2002, and now has over 11% of its all-time peak load available to respond to a peak load event during the summer. The goal of demand response at Idaho Power is to minimize or delay the need to build new supply-side peaking resources. The company estimates future capacity needs through the IRP planning process and plans resources to

mitigate predicted system deficits. Demand response program results are measured by the amount of demand reduction, in (MW), achieved by the company during the summer peak time.

## DSM Program Performance

Idaho Power’s portfolio of energy efficiency program savings remained strong in 2020 with the second highest savings since the Idaho Rider began in 2002. The 2020 total savings of 196,809 MWh including the estimated savings from the Northwest Energy Efficiency Alliance (NEEA), decreased by only 6,493 MWh compared to the 2019 savings of 203,302 MWh—a 3% year-over-year decrease. The 2020 savings represent enough energy to power over 17,000 average homes in Idaho Power’s service area for one year. The savings from Idaho Power’s energy efficiency programs alone, excluding NEEA savings, were 180,818 MWh in 2020 and 184,934 MWh in 2019—a 2% year-over-year decrease (Figure 4). Idaho Power invests significant resources to maintain and improve its energy efficiency and demand response programs and was able to achieve near record savings even with extensive disruptions to many programs due to COVID-19 protocols.



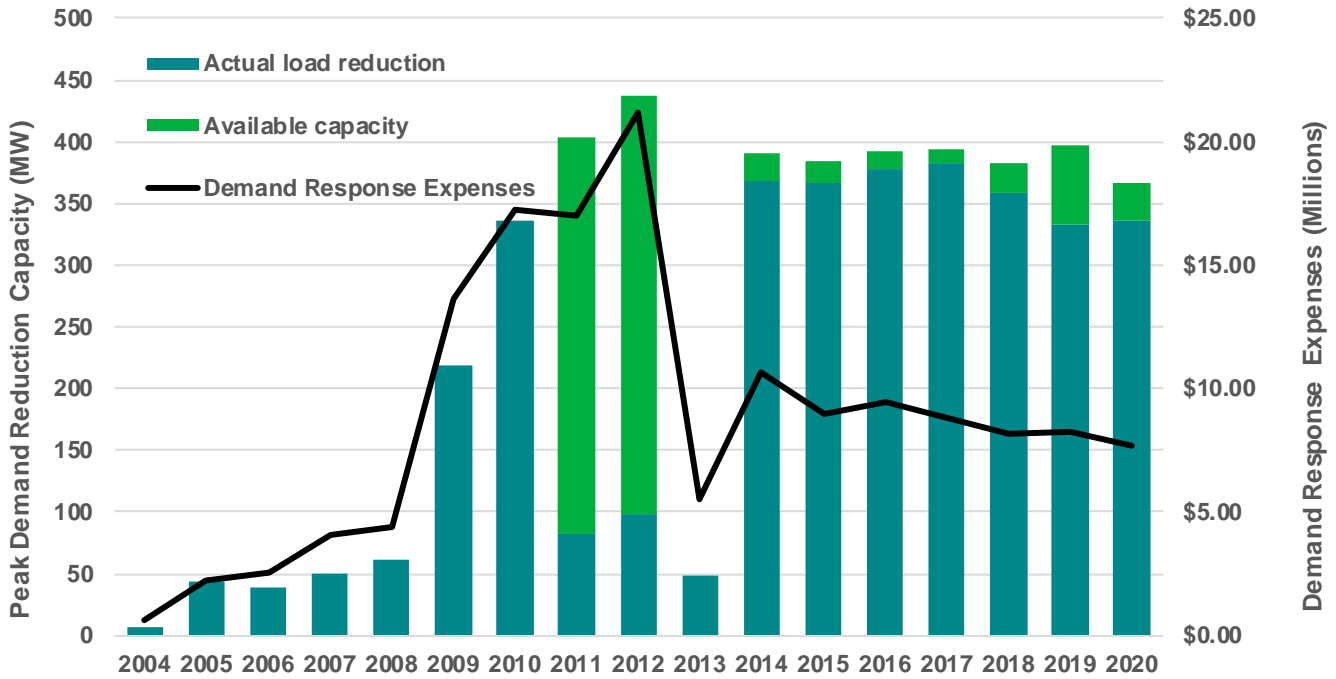
**Figure 4. Annual energy savings and energy efficiency program expenses, 2002–2020 (MWh and millions [\$])**

The 2020 savings results consisted of 37,302 MWh from the residential sector, 130,633 MWh from the commercial/industrial sector, and 12,884 MWh from the irrigation sector. The C&I sector programs contributed 72% of the direct program savings. In the residential sector, lighting continued to significantly contribute to program savings with the Energy Efficient Lighting program contributing 37% of the residential savings and Energy Efficient Lighting combined with Educational Distributions contributing 63% of residential savings. See tables 1 and 2 for a complete list of programs and sector-level savings.

## Demand Response

In summer 2020, Idaho Power had a combined maximum actual non-coincidental load reduction from all three programs of 336 MW at the generation level. The amount of capacity available for demand response varies based on weather, time of year, and how programs are used and managed. The 2020

capacity of demand response programs was 366 MW (Figure 5). The demand response capacity is calculated using the total enrolled MW from participants with an expected maximum realization rate for those participants. This maximum realization rate is not always achieved for every program in any given year. The maximum capacity for the Irrigation Peak Rewards program is based on the maximum reduction possible during the hours within the program season. For the Flex Peak Program, the maximum capacity is the maximum nominated amount of load reduction. For the A/C Cool Credit program, the capacity is calculated based on the number of active participants multiplied by maximum per-unit reduction ever achieved.



**Figure 5. Peak demand-reduction capacity and demand response expenses, 2004–2020 (MW and millions [\$])**

Under the terms of the Idaho Public Utilities Commission (IPUC) Order No. 32923 and Public Utility Commission of Oregon (OPUC) Order No. 13-482, the company has continued to maintain these programs and use them at least three times per season. During the IRP process, the company analyzes if and when expanded demand response capacity will be needed to avoid system peak deficiencies.

## Energy Efficiency

**Table 3. DSM programs by sector, operational type, and location, 2020**

Program by Sector	Operational Type	State
<b>Residential</b>		
A/C Cool Credit.....	Demand Response	ID/OR
Easy Savings: Low-Income Energy Efficiency Education	Energy Efficiency	ID
Educational Distributions.....	Energy Efficiency	ID/OR
Home Energy Report Program.....	Energy Efficiency	ID
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 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 Pilot Program.....	Energy Efficiency	ID/OR
Shade Tree Project.....	Energy Efficiency	ID
Simple Steps, Smart Savings™.....	Energy Efficiency	ID/OR
Weatherization Assistance for Qualified Customers.....	Energy Efficiency	ID/OR
Weatherization Solutions for Eligible Customers.....	Energy Efficiency	ID
<b>Commercial/Industrial</b>		
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
<b>Irrigation</b>		
Irrigation Efficiency Rewards.....	Energy Efficiency	ID/OR
Green Motors—Irrigation.....	Energy Efficiency	ID/OR
Irrigation Peak Rewards.....	Demand Response	ID/OR
<b>All Sectors</b>		
Northwest Energy Efficiency Alliance.....	Market Transformation	ID/OR



**Table 4. DSM programs by sector summary and energy usage/savings/demand reduction, 2020**

	Energy Efficiency Program Impacts <sup>a</sup>			Idaho Power System Sales		
	Program Expenses	Energy Savings (MWh)	Peak-Load Reduction (MW) <sup>b</sup>	Sector Total (MWh)	Percentage of Energy Usage	Year-End Number of Customers
Residential .....	\$ 8,937,132	37,302		5,414,951	37%	491,229
Commercial/Industrial .....	24,474,163	130,633		7,364,382	50%	74,533
Irrigation .....	3,401,673	12,884		1,987,418	13%	20,309
Market Transformation .....	2,789,210	15,991				
Demand Response .....	7,714,912	n/a	336			
Direct Overhead/ Other Programs.....	3,239,213	n/a				
<b>Total Direct Program Expenses .....</b>	<b>\$ 50,556,303</b>	<b>196,809</b>	<b>336</b>	<b>14,786,751</b>	<b>100%</b>	<b>586,071</b>

<sup>a</sup> Energy, average energy, and expense data have been rounded to the nearest whole unit, which may result in minor rounding differences.

<sup>b</sup> Includes 9.7% peak line loss assumptions.

## Customer Education

Idaho Power produced one *Energy Efficiency Guide* in 2020 and distributed it in April primarily as an insert in 20 local newspapers. Because of COVID-19, Idaho Power increased digital communication efforts to bring a variety of energy and money-saving tips to customers. Idaho Power also distributed 2,424 copies of *30 Simple Things You Can Do to Save Energy* booklet directly to customers. Prior to COVID-19 shutdowns, Idaho Power participated in the Idaho Remodeling and Design Show, Smart Women, Smart Money and the Canyon County winter home show. In 2020, despite the pandemic challenges, Idaho Power's EOEAs delivered over 300 presentations with energy-savings messages to audiences of all ages.

Idaho Power supports the Integrated Design Lab (IDL), which conducted Lunch & Learn sessions to educate architects, engineers, and other design and construction professionals about various energy efficiency topics. In 2020, the IDL scheduled 20 technical virtual technical training sessions and 366 architects, engineers, designers, project managers, and other interested parties attended. Also, IDL hosted six virtual monthly Building Simulation Users Group (BSUG) sessions with 105 professionals attending.

The IDL also maintains an Energy Resource Library (ERL) with tools for measuring and monitoring energy use and provides training on how to use them. The ERL includes over 900 individual pieces of equipment, with 34 new tools added in 2020.

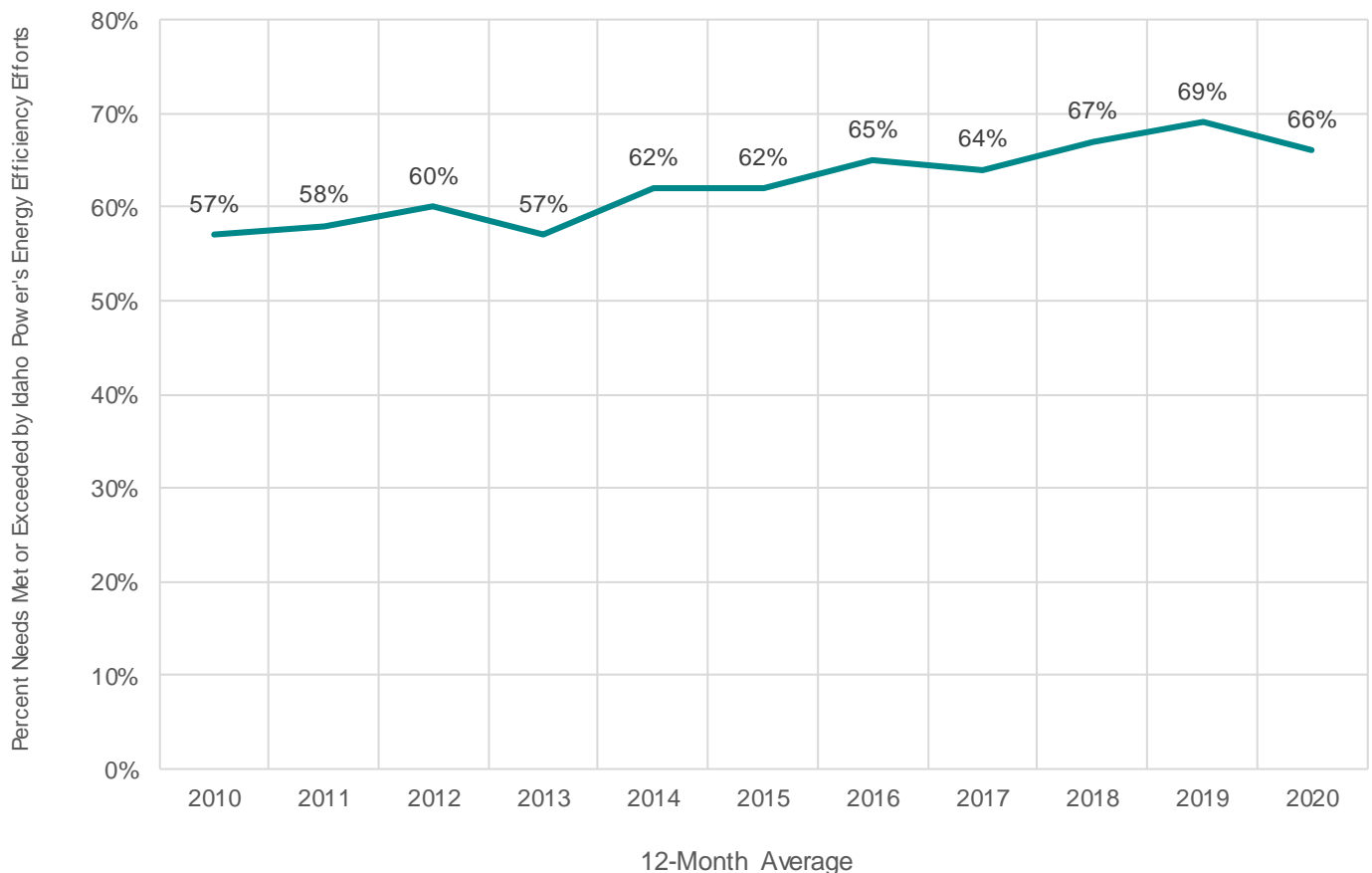
Idaho Power continued to provide training to its commercial and industrial customers in 2020, delivering five total full-time days over the course of 12 days of technical classroom-based, live, online training sessions to 179 unique logins. Due to the virtual nature of the course delivery, in some cases there were multiple attendees at a single login location.

In 2020, Idaho Power provided five irrigation workshops and participated in two additional vendor hosted workshops promoting irrigation system efficiency. The company also participated in and had an exhibit at four agricultural trade shows prior to COVID-19 restrictions, the Idaho Irrigation Equipment Association Winter Show, Eastern Idaho Agriculture Expo, Western Idaho Agriculture Expo, and the Agri Action Ag Show.

## Surveying Customer Satisfaction

Relationship surveys measure the satisfaction of several aspects of a customer’s relationship with Idaho Power, including energy efficiency, at a very high level. However, the surveys are not intended to measure all aspects of the energy efficiency programs.

The 2020 results of Idaho Power’s customer relationship survey showed near-record overall customer satisfaction. Sixty-six percent of customers indicated their needs were met or exceeded by Idaho Power encouraging energy efficiency among its customers. Figure 6 depicts the percentage of customers who indicated Idaho Power met or exceeded their needs concerning the energy efficiency efforts it encouraged each year since 2010.



**Figure 6. Customers’ needs “met” or “exceeded” (%), 2010–2020**

The 2020 survey also asked three questions related to Idaho Power’s energy efficiency programs:

1) Have you participated in any of Idaho Power’s energy efficiency programs? 2) Which energy efficiency program did you participate in? and 3) Overall, how satisfied are you with the energy efficiency program? In 2020, 44% of the survey respondents across all sectors indicated they participated in at least one Idaho Power energy efficiency program, and 92% were “very” or “somewhat” satisfied with the program they participated in.

Results for the sector-level, program-level, and marketing-related customer satisfaction surveys can be found later in this report.

## Program Evaluation Approach

Idaho Power considers program evaluation an essential component of its DSM operational activities. The company uses third-party contractors to conduct impact, process, and other evaluations on a scheduled and as-required basis. In some cases, research and analyses are conducted internally and managed by Idaho Power's Research and Analysis team within the Customer Relations and Energy Efficiency (CR&EE) department. Third-party contracts are generally awarded using a competitive-bid process managed by Idaho Power's Corporate Services department.

Idaho Power uses industry-standard protocols for its internal and external evaluation efforts, including the National Action Plan for Energy Efficiency—Model Energy Efficiency Program Impact Evaluation Guide, the California Evaluation Framework, the International Performance Measurement and Verification Protocol (IPMVP), the Database for Energy Efficiency Resources, and the Regional Technical Forum's (RTF) evaluation protocols.

The company also supports regional and national studies to promote the ongoing cost-effectiveness of programs, the validation of energy savings and demand reduction, and the efficient management of its programs. Idaho Power considers primary and secondary research, cost-effectiveness analyses, potential assessments, and impact and process evaluations to be important resources in providing accurate and transparent program-savings estimates. Idaho Power uses recommendations and findings from evaluations and research to continuously refine its DSM programs.

For a summary of evaluation results, recommendations, and responses, see each program section. For copies of 2020 program evaluation reports and the evaluation schedule, see *Supplement 2: Evaluation*.

## Cost-Effectiveness Goals

Idaho Power considers cost-effectiveness of primary importance in the design, implementation, and tracking of energy efficiency and demand response programs. Prior to the actual implementation, Idaho Power performs a cost-effectiveness analysis to assess whether a potential program design or measure will be cost-effective. Incorporated in these models are inputs from various sources that use the most current and reliable information available.

Idaho Power's goal is for all programs to have benefit/cost (B/C) ratios greater than one for the total resource cost (TRC) test, utility cost test (UCT), and participant cost test (PCT) at the program and measure level where appropriate. Each cost-effectiveness test provides a different perspective, and Idaho Power believes each test adds value when evaluating program performance. In 2020, Idaho Power began transitioning to using the UCT as the primary cost-effectiveness test for energy efficiency resource planning as directed by the IPUC in Order No. 34503. The company plans to continue to calculate the TRC test and PCT because each perspective can help inform the company and stakeholders about a particular program's or measure's effectiveness. Additionally, programs and measures offered in Oregon must still use the TRC test as the primary cost-effectiveness test as directed by the OPUC in Order No. 94-590

There are many assumptions when calculating the cost-effectiveness of a given program or measure. Savings can vary based on a variety of factors, such as participation levels or the participants' locations. For instance, heat pumps installed in the Boise area will have less savings than heat pumps installed in the McCall area. If program participation and savings increase, fixed costs, such as labor and marketing, are distributed more broadly, and the program cost-effectiveness increases.

When an existing program or measure is shown not to be cost-effective, Idaho Power works with the EEAG to obtain input before making its determination on continuing, discontinuing, or modifying an offering. The company must demonstrate why a non-cost-effective measure or program continues to be offered and communicate the steps the company plans to take to improve cost-effectiveness. This aligns with the expectations of the IPUC and OPUC.

As part of the public workshops on Case No. IPC-E-13-14, Idaho Power and other stakeholders agreed on a new methodology for valuing demand response. The settlement agreement, as approved in IPUC Order No. 32923 and OPUC Order No. 13-482, defined the annual cost of operating the three demand response programs for the maximum allowable 60 hours to be no more than \$16.7 million. The annual value calculation will be updated with each IRP based on changes that include, but are not limited to, need, capital cost, or financial assumptions. This amount was reevaluated in the 2015, 2017, and 2019 (amended) IRPs to be \$18.5, \$19.8, and \$19.6 million, respectively.

This value is the levelized annual cost of a 170-MW deferred resource over a 20-year life. The demand response value calculation will include this value even in years when the IRP shows no peak-hour capacity deficits. In 2020, the cost of operating the three demand response programs was \$7.7 million. Idaho Power estimates that if the three programs were dispatched for the full 60 hours, the total costs would have been approximately \$10.9 million and would have remained cost-effective.

Details on the cost-effectiveness assumptions and data are included in *Supplement 1: Cost-Effectiveness*.

## Energy Efficiency Advisory Group

Formed in 2002, EEAG provides input on enhancing existing DSM programs and on implementing energy efficiency programs. Currently, EEAG consists of 13 members from Idaho Power's service area and the northwest. Members represent a cross-section of customers from the residential, industrial, commercial, and irrigation sectors, and technical experts, as well as individuals representing low-income households, environmental organizations, state agencies, county and city governments, public utility commissions, and Idaho Power.

EEAG meets quarterly and, when necessary, Idaho Power facilitates additional conference calls and/or webinars to address special topics. In 2020, four EEAG meetings and two webinars were held. The meetings were on February 13, May 6, August 5, and November 12 and the webinars were on April 28 and October 8. EEAG meetings are generally open to the public and attract a diverse audience. Idaho Power appreciates the input from the group and acknowledges the commitment of time and resources the individual members give to participate in EEAG meetings and activities.

During these meetings, Idaho Power discussed new energy efficiency program ideas and new measure proposals, marketing methods, and specific measure details. The company provided the status of energy efficiency expenses and Idaho and Oregon Rider funding, gave updates of ongoing programs and projects, and supplied general information on DSM issues and other important issues occurring in the region. Experts were invited to speak about program evaluations and research.

Idaho Power relies on input from EEAG to provide a customer and public-interest view of energy efficiency and demand response. Additionally, Idaho Power regularly provides updates on current and future cost-effectiveness of energy efficiency programs and how changes in the IRP will impact DSM alternate costs, which Idaho Power uses in calculating cost-effectiveness. In the meetings, Idaho Power frequently requests input and feedback from EEAG members on several topics, including programmatic changes, marketing tactics, and incentive levels. EEAG often recommends presentation ideas for future meetings.

Throughout 2020, Idaho Power relied on input from EEAG on the following important topics. For complete meeting notes, see *Supplement 2: Evaluation*.

## **COVID-19 Impacts**

The COVID-19 pandemic had broad impacts to the company's energy efficiency efforts. Idaho Power worked diligently to seek new ways to maintain activity while prioritizing the safety of customers, contractors, EEAG members, and employees. After the February quarterly EEAG meeting, the company transitioned to virtual meetings, and worked closely with members to use technology to maintain participation.

Starting with the May 6 EEAG meeting, Idaho Power provided a COVID-19 program status to summarize which programs are or are not affected by COVID-19 protocols. Much of the company's in-home or on-location work was suspended in the early months of the pandemic, but as state safety-guidelines were developed, some work on-location resumed at various businesses. In the early summer, state agencies resumed work for the Idaho and Oregon WAQC programs. The company took the opportunity to transition workshops, trainings, and some Commercial & Industrial inspections to a virtual format. This change helped successfully maintain participation, and EEAG feedback was positive. After consulting EEAG on the market feedback surrounding incentives and opportunities to increase participation when safe to resume activity, Idaho Power increased incentives in the C&I Energy Efficiency program for the professional assistance incentives (PAI) within the New Construction option and lighting incentives in the Retrofits option. This helped drive additional participation in the second half of 2020.

At the meetings, Idaho Power shared how it was using its various marketing channels to help customers understand operational changes due to COVID-19 restrictions. For example, the company quickly added webpage alerts to explain program availability and guided customers to new participation opportunities, including online training, as early as the April *Energy@Work* newsletter.

As the pandemic continued in 2020, the company shared how it updated marketing material to provide energy efficiency tips for customers who may be spending more time at home, and how it successfully marketed virtual training sessions resulting in high trade ally participation.

## **WAQC and Weatherization Solutions for Eligible Customers**

Idaho Power held a webinar October 2020, to review the results of the third-party energy savings billing analysis completed for the Weatherization Assistance for Qualified Customers and Weatherization Solutions for Eligible Customers programs. EEAG members asked questions about the types of homes weatherized, as well as the types of equipment in homes such as heat pumps or air conditioning (A/C) units. After sharing the results of the billing analysis, the company highlighted that future program cost-effectiveness would be impacted by incorporating the new energy savings assumptions. Idaho Power opened the discussion to explore ways to improve program cost-effectiveness and provided three potential ideas, one EEAG member noted that there is potential to explore using measure lists to improve program cost-effectiveness. EEAG members had additional questions on the types of measures installed and the other funding sources for the programs and how they are leveraged. A more in-depth review of the two programs will be delivered to EEAG in the first quarter of 2021, incorporating discussion about a new billing tool which may improve program cost-effectiveness.

## **Educational Distributions**

Idaho Power incorporated new lighting energy savings assumptions from the RTF in evaluation of its three education distribution offerings, Welcome Kits, SEEK, and Energy-Savings Kits, and found that claimed savings had significantly decreased. The company shared the program impacts at the August EEAG meeting and advised that the Welcome Kits would no longer be cost-effective with the new



savings assumptions, but Idaho Power was evaluating opportunities to offer the kit in a different format. An EEAG member suggested the company continue to evaluate delivery methods that may keep energy savings high. Because the ESKs would no longer be cost-effective and the offering was reaching market saturation, Idaho Power proposed to sunset the program by year-end 2020 while it was still cost-effective. The company requested EEAG feedback on ideas for the final marketing push suggesting a “last chance” tactic. During the November 2020, EEAG meeting, Idaho Power shared it had run three marketing campaigns for the ESKs and incorporated the last chance messaging. The customer response-rate was positive, with kit distribution of 17,000 since the August update. The company also shared it was posting the number of kits remaining on the order portal in an effort to help drive final participation.

### **Simple Steps, Smart Savings™**

The August EEAG meeting included a discussion on the Energy Efficient Lighting and Simple Steps, Smart Savings™ program which are a subset of the Simple Steps, Smart Savings™ program administered by Bonneville Power Administration (BPA). BPA planned to sunset the regional program on September 30, 2020, resulting in the company discontinuing its retail buy-down programs on the same date. The company explained that it was exploring an alternative program focusing on energy savings related to lighting. EEAG members asked questions about the cost-effectiveness of a local program versus the BPA regional program and one was glad that Idaho Power was pursuing a possible replacement. At the November EEAG meeting, Idaho Power updated members about an Energy Trust of Oregon (ETO) analysis of a lighting retail buy-down offering. ETO found that the LED market is less transformed at certain retailers. While some retailers almost exclusively offer LEDs on their shelves, certain retailers continue to stock a high proportion of less-efficient bulbs, and customers are more likely to purchase these less-efficient bulbs. By continuing the buy-down offering for LEDs at these retailers, ETO found there was more potential to claim energy savings. When the company asked for EEAG feedback on continuing to explore a buy-down option for a portion of the retail market, a member complimented the company and thought this was a smart way to manage this transition.

### **Future Plans for DSM Programs**

Idaho Power will continue to pursue all prudent cost-effective energy efficiency and the amount of demand response based on the demand response settlement agreement approved in IPUC Order No. 32923 and OPUC Order No. 13-482. The forecasted levels of energy efficiency and demand response are determined by Idaho Power’s biennial IRP planning process. The IRP is developed in a public process that details Idaho Power’s strategy for economically maintaining the adequacy of its power system into the future.

In 2019, the IPUC issued Order No. 34503 directing Idaho Power to use the UCT for energy efficiency resource planning. In 2020, the company contracted with a third party to develop a new energy efficiency potential study, and Idaho Power also updated its third-party Commercial/Industrial Technical Reference Manual (TRM) to take into account the International Energy Conservation Code (IECC) 2018 energy codes expected to be in effect January 1, 2021.

The company continuously searches for new measures for its programs through a membership in E Source, contacts with other utilities, participation in the NEEA Regional Emerging Technology Advisory Committee (RETAC), and from the RTF. Idaho Power representatives also attend national conferences and participate in webinars hosted by organizations interested in advancing energy efficiency savings.

Idaho Power will continue to work in consultation with EEAG to expand or modify its energy efficiency portfolio. Future plans for individual programs are included under each programs’ 2020 Program and Marketing Strategies section.



Throughout 2019, Idaho Power monitored the government’s activities in relation to the next phase of the Energy Independence and Security Act (EISA) and considered how policy changes would affect the company’s Energy Efficient Lighting program and several other predominately residential programs. Signed by President Bush in 2007, EISA called for energy reduction goals “to move the United States toward greater energy independence and security.” Title III of the act contained standards for 10 residential appliances and lighting.

The initial 25% greater efficiency goal for general service lightbulbs was phased in between 2012 through 2014. In 2017, the definition of general service was expanded to include A-lamp (pear-shaped bulbs), reflector, candelabra, three-way, and other specialty bulbs. By 2020, all general service lightbulbs were to provide 45 lumens per watt, which is approximately 65% more efficient than the original, pre-EISA incandescent lightbulb. In September 2019, the US Department of Energy (DOE) determined the general service definition did not need to be amended to include bulbs other than the A-lamp and withdrew the 2017 regulation expanding the definition. In December 2019, the DOE’s final determination on the EISA 2020 lighting standards eliminated the 45-lumen-per-watt requirement for all residential general service incandescent lightbulbs.

Anticipating the increased standards that were scheduled to go into effect January 1, 2020, Idaho Power considered phasing out its programs that included energy-efficient screw-in bulbs. After the DOE’s final determination announcement eliminated this increase in standards, Idaho Power decided to continue these offerings in lighting.

The company uses a third-party vendor in association with BPA for the Energy Efficiency Lighting and Simple Steps, Smart Savings™ programs, which helps the company realize lower administrative costs. BPA’s program is called Simple Steps, Smart Savings™ (Simple Steps). Despite the DOE’s final determination to eliminate the 45-lumen-per-watt requirement for incandescent lightbulbs, BPA planned to discontinue its Simple Steps program at the end of its 2020 federal fiscal year, September 30, 2020. According to BPA, “...the residential lighting market has transformed; high-efficiency lamps are becoming the norm rather than the exception.” Due to reductions, then ultimate removal of claimed energy savings assumptions for high-efficiency showerheads by the RTF, the appliance buy-down portion of BPA’s Simple Steps program would also no longer be cost-effective after 2020. Idaho Power committed to offering the Simple Steps program to customers until BPA discontinued its program. In advance of the discontinuation date, the company evaluated opportunities for an alternative program that offers energy-efficient screw-in bulbs.

In 2021, Idaho Power will continue to enhance its marketing and outreach efforts as described in the Marketing section of this report and within each program section. Idaho Power will continue to work with NEEA on its market transformation activities during its 2020–2024 funding cycle.

The company will complete its evaluation, measurement, and verification (EM&V) projects included in the evaluation plan in *Supplement 2: Evaluation*.

## DSM Annual Report Structure

The *Demand-Side Management 2020 Annual Report* consists of this main document and two supplements.

The main document contains the following sections related to 2020 DSM activities: 1) program activities by customer sector (residential, commercial/industrial, and irrigation) including marketing efforts, cost-effectiveness analysis, customer satisfaction survey results, and evaluation recommendations and responses for each program; 2) other program and activity details, including market transformation; and 3) four appendices of data related to payments, funding, and program-level costs and savings. Where appropriate, plans for 2021 are also discussed.

*Supplement 1: Cost-Effectiveness* describes the standard cost-effectiveness tests for Idaho Power programs and reports current-year program-level and summary cost-effectiveness and expenses by funding source and cost category.

*Supplement 2: Evaluation* includes an evaluation and research summary, an evaluation plan, EEAG meeting notes, links to NEEA evaluations, and copies of IDL reports, research and survey reports, evaluation reports, and other reports.

## 2020 DSM PROGRAM ACTIVITY

### DSM Expenditures

Funding for DSM programs in 2020 came from several sources. The Idaho and Oregon Rider funds are collected directly from customers on their monthly bills. The 2020 Idaho Rider was 2.75% of base revenues. The 2020 Oregon Rider was 4% of base rate revenues. Additionally, Idaho demand response program incentives were funded through base rates and the annual PCA mechanism. DSM expenses not funded through the Rider are included as part of Idaho Power's ongoing operation and maintenance (O&M) costs.

Table 5 shows the total expenditures funded by the Idaho and Oregon riders and Idaho Power base rates resulting in Idaho Power's total DSM expenditures of \$50,556,303. The non-rider funding category includes the company's demand response incentives in Idaho, Weatherization Assistance for Qualified Customers (WAQC) expenses, and O&M costs.

**Table 5. 2020 funding source and energy savings**

Funding Source	Expenses	MWh Savings
Idaho Rider .....	\$40,409,911	190,009
Oregon Rider.....	1,786,954	6,571
Idaho Power Base Rates .....	8,359,437	229
<b>Total .....</b>	<b>\$50,556,303<sup>a</sup></b>	<b>196,809</b>

<sup>a</sup> Totals may not sum due to rounding.

Table 6 and Figure 7 indicate 2020 DSM program expenditures by category. While the Incentive Expense category illustrates the amount paid directly to customers for their participation in an energy efficiency or demand response program, the other categories include items or services that directly benefited customers. The majority of the expenses in the Materials & Equipment category includes the following items: Energy-Savings Kits (ESK), Welcome Kits, SEEK, Educational Distributions Giveaways, and Commercial Energy-Savings Kits that were distributed to customers (\$2,254,279) direct-install weatherization measures (\$33,700). The expenses in the Other Expense category include marketing (\$1,236,416), Custom Projects energy audits (\$221,070), program evaluation (\$93,097), and program training (\$77,784). The Purchased Services category includes payments made to NEEA (\$2,789,210) and third-party contractors who help deliver Idaho Power's programs.

**Table 6. 2020 DSM program expenditures by category**

Program Expenditure Category	Total	% of Total
Incentive Expense.....	\$31,823,660	63%
Labor/Administrative Expense.....	3,971,391	8%
Materials & Equipment.....	2,309,425	5%
Other Expense .....	1,680,329	3%
Purchased Services .....	10,771,499	21%
<b>Total .....</b>	<b>\$50,556,303<sup>a</sup></b>	<b>100%</b>

<sup>a</sup> Dollars been rounded to the nearest whole unit, which may result in minor rounding differences.

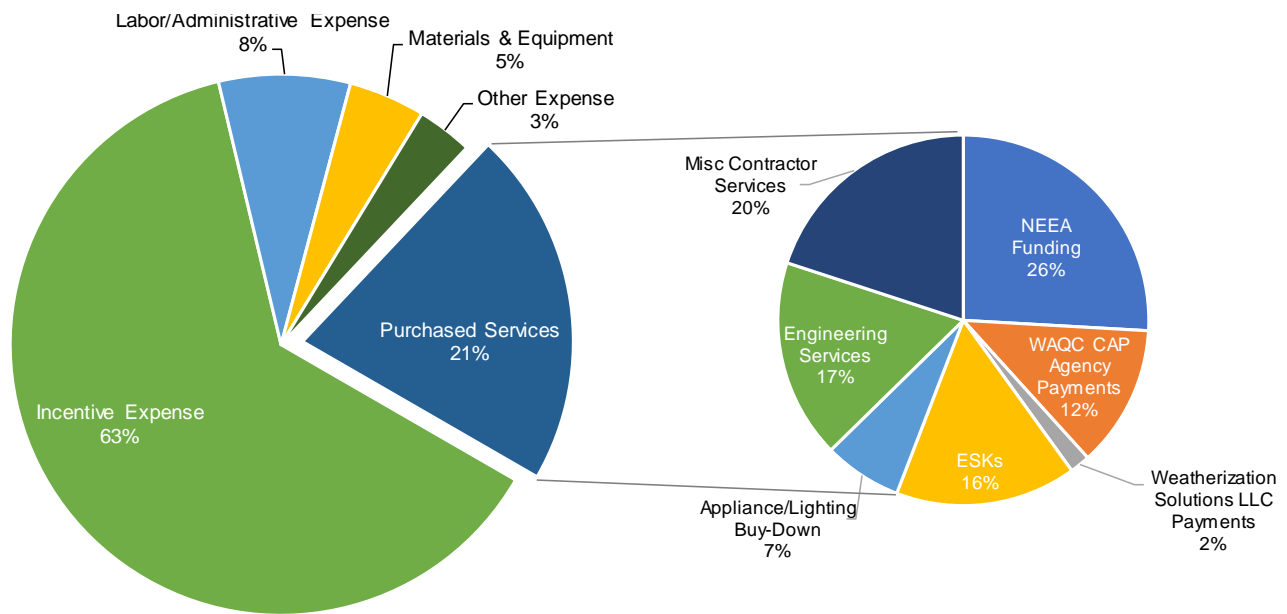


Figure 7. 2020 DSM program expenditures by category

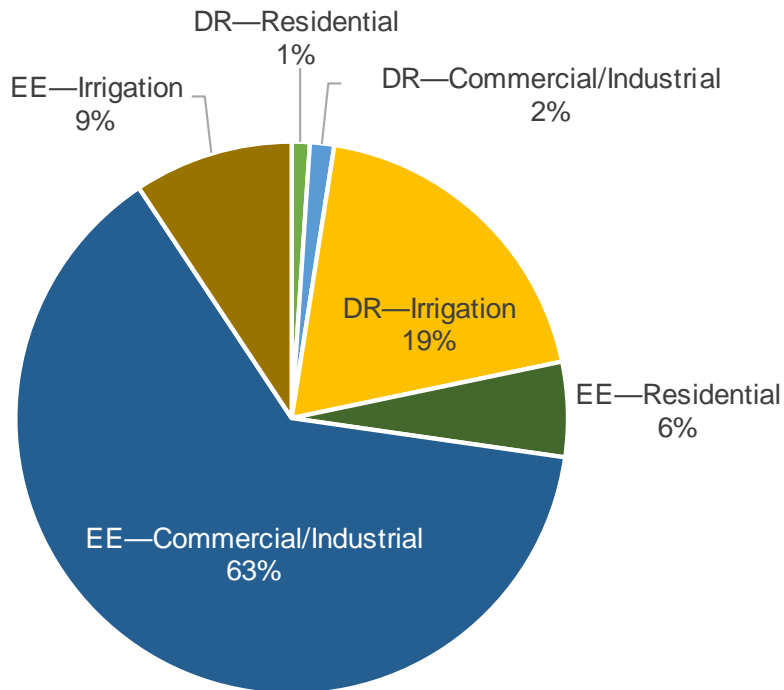
Table 7. 2020 DSM program incentive totals by program type and sector

Program Type—Sector	Total	% of Total
DR <sup>a</sup> —Residential .....	\$336,410	1.1%
DR—Commercial/Industrial.....	\$450,450	1.4%
DR—Irrigation .....	\$6,124,937	19.2%
EE <sup>b</sup> —Residential .....	\$1,765,985	5.5%
EE—Commercial/Industrial .....	\$20,177,062	63.4%
EE—Irrigation.....	\$2,968,817	9.3%
<b>Total .....</b>	<b>\$31,823,660 <sup>c</sup></b>	<b>100.0%</b>

<sup>a</sup> DR = demand response

<sup>b</sup> EE = energy efficiency

<sup>c</sup> Dollars been rounded to the nearest whole unit, which may result in minor rounding differences.



**Figure 8. Percent of DSM program incentive expenses by program type and sector, 2020**

## Marketing

Idaho Power used multi-channel marketing and public relations (PR) strategies in 2020 to improve communication and increase energy efficiency program awareness among its customers. The company uses a wide variety of media and marketing; owned media (social, website, and newsletters) and paid media (advertising and sponsorships), which allow Idaho Power to control the content. Earned unpaid media (news coverage, Idaho Power's *News Briefs* sent to reporters, third-party publications, and television news appearances) gives Idaho Power access to a broader audience through alternative channels that help establish credibility and brand trust. Though the company has less control with earned unpaid media, the value is established through the third-party endorsement.

Idaho Power marketing staff networks with organizations across the region and industry to ensure it is informed about current and future marketing trends and successes. Idaho Power continued to work with NEEA to coordinate, collaborate, and facilitate marketing for all sectors. To build marketing networks and to learn what works in other regions, Idaho Power staff virtually attended a variety of conferences and webinars throughout the year, such as the E Source Utility Marketing Executive Council and Forum in September.

The following describes a selection of the methods, approaches, and strategies used by Idaho Power to engage customers regarding energy efficiency, along with their results. See the respective sector overviews and programs sections later in this report for the company's marketing efforts specific to those areas.

### Social Media

Approximately 18% of the company's total social media content promoted energy efficiency in 2020. Idaho Power regularly posted messages encouraging energy efficiency behaviors, program enrollment, and customer engagement on Facebook, Twitter, YouTube, and LinkedIn. Because of the need to use social media for COVID-19 related customer communication, the percentage of content related to

energy efficiency dipped slightly from previous years. Social media content also showcased local businesses and organizations that have benefitted from Idaho Power energy efficiency efforts. Idaho Power engaged with customers that posted their own social media content about Idaho Power programs, such as Energy-Saving Kits. Idaho Power's Facebook page hosted two customer sweepstakes giveaways encouraging customers to enter by leaving a comment about how they save energy in the summer or fall.

In 2020, Idaho Power social channels focused on sharing energy efficiency tips that made sense for customers spending more time at home. Graphics were updated to be more engaging and representative of behavior changes customers could make without spending any money or leaving the house. Tips were also provided to help businesses save energy while operating with fewer employees or with reduced working hours. When timely and appropriate, past *#TipTuesday* content was repurposed and shared, as well.

Idaho Power's Facebook followers increased 8.6% in 2020, from 20,982 at the end of 2019 to 22,800 at the end of 2020. Facebook remains the company's priority channel for engaging directly with customers and was the main platform in 2020 for focusing on COVID-19 safety messages, energy assistance for customers, crisis communications, energy efficiency tips and program offerings, and helping customers with account-related issues through private messages.

Idaho Power uses Twitter to communicate about media items, large outages, company news, and energy efficiency. COVID-19 messaging was also shared on the platform in 2020. Idaho Power's Twitter followers increased 3.5% in 2020, from 6,000 followers to 6,210.

Idaho Power again saw a favorable increase in followers on LinkedIn with 1,992 new followers in 2020. LinkedIn is an effective channel for engaging business and commercial customers in energy efficiency, as well as positioning the company as a good corporate citizen, clean energy leader, and employer of choice.

## Website

Idaho Power tracked the number of page views to the main energy efficiency pages—also known as landing pages—from external users on the company's website. In 2020, the company's energy efficiency homepage received 6,542 page views, the residential landing page received 192,307 views, and the business and irrigation landing pages received 12,288. Idaho Power uses Google Analytics to analyze web activity. Google's definition of page views is the total number of pages viewed, with repeated views of a single page by one user counted as a new view.

## Public Relations

Idaho Power's PR staff supported energy efficiency programs and activities through these channels: videos telling energy efficiency success stories; *Connections*, a monthly customer newsletter distributed in monthly bills and available online; *News Briefs*, a weekly email of interesting news items sent to all media in the company's service area; pitching and participating in news stories; energy efficiency TV segments in two markets (KTVB in Boise and KMVT in Twin Falls); energy efficiency radio segments; news releases; and public events (such as incentive check presentations).

In 2020, the January and July issues of *Connections* were devoted to energy efficiency. The January issue included a variety of ideas for energy-saving resolutions, such as how to save energy with a pressure cooker, and information about the heat pump water heater (HPWH) incentive. The July edition highlighted, how to save energy during the summer months, how to learn more about energy efficiency with fun at-home activities, and the energy efficiency success story of the Idaho Humane Society.



Idaho Power produced new energy efficiency success story videos in 2020 highlighting the energy efficiency efforts of Sun Valley Resort and the Idaho Humane Society. Combined, the videos received 782 views on YouTube and an additional 5,717 views on Facebook.

The energy efficiency television segments that aired on stations in Boise and Twin Falls continued to receive positive feedback but were limited in 2020 due to COVID-19 restricting guests at television stations. Topics included smart thermostats, energy-efficient kitchen tips, and ways to beat the summer heat. Idaho Power also did a segment on two Pocatello area radio stations about energy efficient holiday cooking.

Media outreach efforts resulted in a variety of earned media coverage focused on energy efficiency. Energy efficiency topics were pitched in *News Briefs* throughout the year, and the company earned media coverage in multiple markets spanning print, TV, and radio. Some of the most popular story topics included winter and summer savings tips, phantom load, and the smart thermostat incentive.

## 2021 Marketing Activities

In 2021, the Idaho Power marketing department plans to introduce new strategies to expand the reach and visibility of the company's energy efficiency ads.

The marketing team will update the Residential Energy Efficiency Awareness Campaign and consider running it on new digital channels. Idaho Power will update the look and messaging of the company's advertising at the Boise Airport. Additionally, the company will continue to update collateral and displays as needed for irrigation programs and various sector trade shows (many of which will be virtual). See the sector overview sections for more specific marketing plans for the future.

## Cost-Effectiveness Results

**Table 8. Cost-effectiveness summary by energy efficiency program**

Program/Sector	UCT	TRC	Ratepayer Impact Measure (RIM)	PCT
Educational Distributions.....	1.45	2.19	0.45	N/A
Energy Efficient Lighting .....	4.56	4.20	0.54	7.77
Energy House Calls .....	0.63	0.77	0.29	N/A
Heating & Cooling Efficiency Program .....	1.66	0.81	0.45	1.46
Multifamily Energy Savings Program .....	0.14	0.28	0.11	N/A
Rebate Advantage .....	1.69	0.98	0.39	2.17
Residential New Construction Pilot Program .....	1.54	1.20	0.45	2.26
Shade Tree Project* .....	N/A	N/A	N/A	N/A
Simple Steps, Smart Savings™ .....	0.78	3.24	0.36	13.23
Weatherization Assistance for Qualified Customers .....	0.20	0.33	0.14	N/A
Weatherization Solutions for Eligible Customers.....	0.13	0.23	0.10	N/A
<b>Residential Energy Efficiency Sector</b>	<b>1.64</b>	<b>1.91</b>	<b>0.45</b>	<b>6.41</b>
Commercial and Industrial Energy Efficiency Program				
Custom Projects.....	3.26	1.61	1.06	1.42
New Construction.....	3.40	2.63	0.80	3.14
Retrofits.....	3.25	1.35	0.79	1.56
Commercial Energy-Saving Kits.....	1.24	2.38	0.56	N/A
Small Business Direct Install.....	1.04	1.61	0.53	N/A
<b>Commercial/Industrial Energy Efficiency Sector **</b>	<b>3.18</b>	<b>1.62</b>	<b>0.97</b>	<b>1.58</b>
Irrigation Efficiency Rewards.....	4.00	4.09	1.18	3.96

Program/Sector	UCT	TRC	Ratepayer Impact Measure (RIM)	PCT
<b>Irrigation Energy Efficiency Sector ***</b>	<b>4.01</b>	<b>4.09</b>	<b>1.18</b>	<b>3.96</b>
<b>Energy Efficiency Portfolio</b>	<b>2.71</b>	<b>2.08</b>	<b>0.83</b>	<b>2.45</b>

\* Shade Tree Project tree distributions were suspended in 2020 due to COVID-19, no newly planted trees in 2020 to report energy savings.

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

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

Details on the cost-effectiveness assumptions and data are included in *Supplement 1: Cost-Effectiveness*.

## Customer Satisfaction Surveys

Idaho Power does not separately survey most energy efficiency program participants each year. This is primarily due to concerns about over surveying program participants and because the measures and specifics of most program designs do not change annually. To ensure meaningful research in the future, Idaho Power conducts program research periodically (every two to three years), unless programs have been changed significantly. Throughout 2020, Idaho Power administered several surveys regarding energy efficiency programs to measure customer satisfaction. Some surveys were administered by a third-party contractor; other surveys were administered by Idaho Power either through traditional paper or electronic surveys or through the company's online panel—Empowered Community. Results of these studies are included in *Supplement 2: Evaluation*.

The sector-level results of the *2020 Burke Customer Relationship Survey* are available in the Residential, Commercial and Industrial, and Irrigation sector overview sections of this report.

## Evaluations

In 2020, Idaho Power contracted with ADM Associates, DNV GL and Tetra Tech to conduct program evaluations for the Educational Distributions (impact and process, DNV GL), the HER Program (process, DNV GL), Irrigation Efficiency Rewards (impact and process, Tetra Tech), and Rebate Advantage (impact, ADM Associates) programs. Nexant conducted a joint billing analysis for the WAQC and Weatherization Solutions for Eligible Customers programs. Idaho Power also contracted Tetra Tech to conduct a process evaluation on the Small Business Direct Install (SBDI) program. The start of the evaluation has been delayed until the second quarter of 2021 to allow time for more installs to be completed after on-site program activity was suspended in early 2020 due to the COVID-19 pandemic. DNV GL started the HER process evaluation alongside the Educational Distributions evaluation. However, due to some late findings, additional analysis was required to complete the evaluation. The HER evaluation will be completed in April 2021 and will be included in the 2021 annual report.

Franklin Energy conducted a program summary analysis for residential ESKs as well as SEEK. Aclara conducted a savings analysis for the HER Program. AM Conservation conducted a program summary analysis for Commercial Energy-Savings Kits. Idaho Power conducted internal analyses of the 2020 demand response events for Irrigation Peak Rewards, Flex Peak, and A/C Cool Credit programs.

A summary of each of these evaluations is available in the respective program sections. An evaluation schedule and the final reports from evaluations and research completed in 2020 are provided in *Supplement 2: Evaluation*.

## Residential Sector Overview

In 2020, Idaho Power's Residential sector consisted of 484,433 customers averaged throughout the year; Idaho customers numbered 470,804 and eastern Oregon had 13,629. In 2020, the number of Residential sector customers increased by 13,135, an increase of 2.8% from 2019. The Residential sector represented 36.7% of Idaho Power's actual total electricity usage and 46.3% of overall revenue in 2020.

Table 9 shows a summary of 2020 participants, costs, and savings from the residential energy efficiency programs.

**Table 9. Residential sector program summary, 2020**

Program	Participants	Total Cost		Savings	
		Utility	Resource	Annual Energy (kWh)	Peak Demand (MW)
<b>Demand Response</b>					
A/C Cool Credit .....	22,536 homes	\$ 765,020	\$ 765,020		19
<b>Total</b> .....		<b>\$ 765,020</b>	<b>\$ 765,020</b>		<b>19</b>
<b>Energy Efficiency</b>					
Easy Savings: Low-Income Energy Efficiency Education .....	155 HVAC tune-ups	\$ 9,503	\$ 9,503	10,628	
Educational Distributions .....	97,228 kits/giveaways	3,106,820	3,106,820	9,481,801	
Energy Efficient Lighting .....	1,148,061 lightbulbs	1,667,159	3,065,781	13,942,202	
Energy House Calls .....	51 homes	46,352	46,352	56,944	
Heating & Cooling Efficiency Program .....	1,019 projects	606,559	1,911,792	1,839,068	
Home Energy Audit .....	97 audits	130,546	142,649	31,938	
Home Energy Report Program .....	127,138 treatment size	899,203	899,203	10,427,940	
Multifamily Energy Savings Program .....	33 units	89,829	89,829	28,041	
Oregon Residential Weatherization .....	0 audits/projects	5,313	5,313	0	
Rebate Advantage .....	116 homes	180,422	437,263	366,678	
Residential New Construction Pilot Program .....	248 homes	473,504	865,989	649,522	
Shade Tree Project* .....	0 trees	28,490	28,490	52,662	
Simple Steps, Smart Savings™ .....	6,894 appliances/ showerheads	99,141	98,629	148,404	
Weatherization Assistance for Qualified Customers ...	115 homes/non-profits	1,385,577	1,728,293	218,611	
Weatherization Solutions for Eligible Customers .....	27 homes	208,715	208,715	47,360	
<b>Total</b> .....		<b>\$ 8,937,132</b>	<b>\$12,644,620</b>	<b>37,301,800</b>	

**Notes:**

\*Shade Tree Project tree distributions were suspended in 2020 due to COVID-19, no newly planted trees in 2020 to report energy savings; listed savings are from prior-year trees increasing in size.

See Appendix 3 for notes on methodology and column definitions.

Totals may not add up due to rounding.

## Energy Efficiency Programs

### Easy Savings: Low-Income Energy Efficiency Education

A program offering coupons to income-qualified customers for HVAC tune-ups and one-on-one energy savings education.

## **Educational Distributions**

A multifaceted approach to educating residential customers about their energy consumption: giving away various efficient products, engaging elementary students with in-class and at-home activities, and providing *Home Energy Reports* to help customers understand their energy use.

## **Energy Efficient Lighting**

A BPA-sponsored program to buy down the cost of energy-efficient lighting products. Though discontinued in 2020 by BPA, Idaho Power is researching ways to offer lighting incentives to a wider range of customers.

## **Energy House Calls**

A program designed specifically for manufactured homeowners to test and seal ducting and to offer energy-efficient products designed to reduce energy costs.

## **Heating and Cooling Efficiency Program**

Providing incentives to customers and builders who upgrade existing homes or build new ones using energy efficient heating and cooling equipment and services.

## **Home Energy Audit**

Similar to Energy House Calls, Idaho customers living in multi-family homes with discrete meters or in single-family homes pay a reduced price for an energy audit to identify areas of concern. Participants may also receive energy-efficient products for no additional cost.

## **Multifamily Energy Savings Program**

A program offering renters in multi-family buildings energy-efficient products designed to reduce energy use and power costs.

## **Oregon Residential Weatherization**

No-cost energy audits for Oregon customers who heat with electricity.

## **Rebate Advantage**

Financial incentives for customers who buy energy-efficient manufactured homes and the people who sell them.

## **Residential New Construction Program**

Idaho Power offers builders a cash incentive to construct energy-efficient, above code, single-family, all-electric homes that use heat pump technology for its Idaho customers.

## **Shade Tree Project**

A tree giveaway program for Idaho customers. To maximize summer energy savings, Idaho Power provides participants with a variety of resources to encourage successful tree growth.

## **Simple Steps Smart Savings™**

Like Energy Efficient Lighting, this BPA-sponsored program was discontinued in 2020. Idaho Power is researching ways to provide a replacement program to encourage customers to purchase qualified energy-efficient appliances.

## **Weatherization Assistance for Qualified Customers and Weatherization Solutions for Eligible Customers**

Energy-efficient products, services, and education for customers who meet income requirements and heat with electricity.

### ***Demand Response Program***

#### **A/C Cool Credit**

A program that gives residential customers a credit for allowing Idaho Power to cycle their A/C units during high-energy demand in the summer.

### ***Marketing***

Idaho Power ran a multi-faceted advertising campaign in the spring (April and May) and fall (October and November) to raise and maintain awareness of the company's energy efficiency programs for residential customers and to demonstrate that saving energy does not have to be challenging. The campaign used radio, television, newspaper advertisements (ads), digital ads, and Facebook ads and boosted posts aimed at a variety of customer demographics across the service area. New in 2020, the company added Spanish network television ads and two seasonally relevant contests: Backyard BBQ Summer Giveaway and Crisp and Cozy Fall Giveaway.

Described below are Idaho Power's marketing efforts to promote energy-saving tips and the company's energy efficiency programs, along with resulting data. Marketing tactics related to a specific sector or program are detailed in those respective sections later in this report.

#### **Email**

Idaho Power continued its effort with email communication in 2020. The company emails only those customers who have supplied their addresses for other business purposes (signing up for paperless billing, for example). Energy efficiency promotional emails included heating and cooling tips, summer and winter contest promotion, and various program promotions (detailed information can be found in respective program sections).

#### **Digital**

During the Spring campaign, web users were exposed to 1,834,342 display ads (image ads embedded on a website) based on their demographics, related to online articles they viewed, or their use of a particular mobile web page or app. Users clicked the ads 3,864 times, resulting in a click-through rate of 0.21%. In the fall, the display ads received 3,287,312 impressions and 1,645 clicks, resulting in a click-through rate of 0.05%.

Idaho Power began using Google search ads in 2018. When people search for terms related to energy efficiency, energy efficiency programs, and individual program measures, the company's ads appear and drive them to the appropriate energy efficiency web page. These ads received 2,512,351 impressions and 169,836 clicks throughout the year.

#### **Television**

Idaho Power used network television, Hulu, and YouTube advertising for the spring and fall campaign. The company also used over-the-top (OTT) media. OTT is a type of streaming media that delivers content to customers watching a certain online show. Most OTT providers have their own app or website and are streamed through devices like Roku or Amazon Fire TVs. The network television

campaign focused on primetime and news programming that reaches the highest percentage of the target market: adults age 25 to 64.

During the spring campaign, an ad ran 1,609 times in the Boise, Pocatello, and Twin Falls media markets on network television. The ad reached 68% of the Boise target audience (which also reached Malheur County in Oregon), 66% of the Twin Falls target audience, and 44% of the Pocatello target audience. The targeted customers saw the ad 7.1 times in Boise, 9.5 times in Twin Falls, and 6.7 times in Pocatello. Hulu ads delivered 622,036 completions, meaning the ad was viewed in its entirety. OTT ads delivered 430,297 impressions with a 95.5% video completion rate. New in the 2020 Spring Campaign was the addition of Spanish network television ads. The Boise target audience saw 124 paid spots and the Pocatello market saw 51 spots. Spanish TV ads ran during the Fall Campaign as well; the Boise target audience saw 210 paid spots and the Pocatello audience saw 98 spots. Ad reach and frequency information is not available for Spanish stations.

During the fall campaign, the TV spot ran 1,551 times in the Boise, Pocatello, and Twin Falls media markets. The ads reached 79.9% of the Boise target audience, 99.4% of the Twin Falls target audience, and 36.6% of the Pocatello target audience. The targeted customers saw the ad 8.2 times in Boise, 9.7 times in Twin Falls, and 5.2 times in Pocatello. Hulu ads received 577,916 completions, and YouTube video ads delivered 1,567,032 impressions and 4,496 clicks. OTT ads delivered 416,118 impressions with a 97.4% video completion rate.

Idaho Power also sponsored commercials on Idaho Public Television in Boise, Pocatello, and Twin Falls markets that ran a total of 192 times.

## Radio

As part of its spring and fall campaign, Idaho Power ran 30-second radio spots on major commercial radio stations in the service area. To obtain optimal reach, the spots ran on a variety of station formats, including classic rock, news/talk, country, adult alternative, adult contemporary, and classic hits. The message was targeted toward adults age 25 to 64 throughout Idaho Power's service area.

Results of the spots are provided for the three major markets: Boise, Pocatello, and Twin Falls. During the spring campaign, Idaho Power ran 2,493 English radio spots. These spots reached 72.7% of the target audience in Boise, 57.6% in Pocatello, and 84.8% in Twin Falls. The target audience in Boise was exposed to the ad 6 times, 7.5 times in Pocatello, and 10.9 times in Twin Falls. During the fall campaign, the company ran 4,799 English radio spots. These spots reached 81.6% of the target audience in Boise, 64.5% of the target audience in Pocatello, and 77.1% of the target audience in Twin Falls. The target audience was exposed to the message 10.2 times in Boise, 8 times in Pocatello, and 9.6 times in Twin Falls during the fall campaign.

In spring, Idaho Power also ran 384 ads on Spanish-speaking radio stations and 308 National Public Radio (NPR) ads in the service area targeting adults age 25 to 54. The fall campaign included 369 Spanish ads and 270 NPR ads.

Idaho Power ran 30-second spots with accompanying visual banner ads on Pandora internet radio, which is accessed by mobile and web-based devices. In the spring, records show 452,008 impressions and 215 clicks to the Idaho Power residential energy efficiency web page. The fall ads yielded 451,813 impressions and 175 clicks.

## Print

As part of the campaign, print advertising ran in the major daily and select weekly newspapers throughout the service area. The company also ran ads in the Idaho Shakespeare Festival program, *Territory Magazine*, *Idaho Magazine*, Broadway in Boise program, *Boise and Meridian Lifestyle*



*Magazine, IdaHome Magazine, Mirada Magazine (Spanish), and Sun Valley Magazine.* As part of the print campaign, digital “homepage takeover” ads were featured on KTVB.com, idahopress.com and idahostatesman.com. Homepage takeover ads fill a homepage with ads from one company for a specific timeframe. The spring ads highlighted individual energy efficiency program options and tips, such as adjusting your thermostat and the benefits of planting a shade tree.

In 2020, Idaho Power updated the program information in a spiral-bound guide outlining each of the residential energy efficiency programs, tips, and resources. The updated guide will be included in the 2021 Welcome Kits. The previous edition of the guide was included in 2020 Welcome Kits, provided to Weatherization Assistance customers, and shared with customers who attended events Idaho Power participated in prior to the COVID-19 restrictions.

## Social Media

Idaho Power’s Facebook ads received 215,224 total impressions, 8,420 engagements, and 598 link clicks during the spring energy efficiency campaign. During the fall campaign, Facebook ads and boosts received 150,500 total impressions, 6,566 engagements, and 5,900 link clicks. Idaho Power tried two different ad placement tactics in 2020. In the spring, four ads were placed individually: one every two weeks. The fall campaign allowed Facebook to automatically alternate between four different ads over a two-month period. Facebook gave higher priority to the ads that performed better with the targeted audience. This tactic resulted in many more link clicks than in the spring, but fewer total impressions and engagements. Because link clicks represent conversions, this technique is more effective at driving customers to our website than previous techniques and will be used again in 2021.

Throughout the year, Idaho Power used Facebook and Twitter posts and boosted Facebook posts for various programs.

## Out-of-Home

In 2020, Idaho Power participated in several new tactics referred to as out-of-home advertising. Out-of-home advertising attempts to reach customers when they are outside of their homes. The tactics were a way to continually maintain energy efficiency program awareness through the year. Tactics included full-side bus wraps on three ValleyRide buses in the Treasure Valley Area that yielded 11,076,912 impressions. Impressions during the year most likely varied due to more customers working from home during COVID-19 restrictions. A quarter wrap also ran on one Pocatello Regional Transit bus in the Eastern Region. A billboard was used in the Homedale area from March through December, which was viewable by 6,900 vehicles per day. The company participated in an Idaho Steelheads sponsorship at CenturyLink Arena in Boise January through March where 91,412 attendees watched a variety of programs, including 16 Steelheads hockey games.

The company sponsored a 4- by 8-foot sign July through December promoting energy efficiency in the College of Southern Idaho (CSI) gym that has a capacity of 2,300. CSI held various events in the gym throughout the year including sporting events, dance competitions, etc. Undoubtedly the sign saw fewer impressions because of COVID-19 restrictions but it is still a very cost-effective tactic to reach customers in the Twin Falls area.

## Public Relations

Many of the company’s PR activities focused on the residential sector. Energy-saving tips videos, TV and radio segments, news releases, and *Connections* newsletter articles often aim to promote incentive programs and/or educate customers about behavioral or product changes they can make to save energy in their homes. Idaho Power also promoted the Crisp and Cozy Fall Giveaway in *News Briefs*.

See the Program Activity section and the Commercial and Industrial Sector Overview for more 2020 PR activities.

## Empowered Community

In 2015, Idaho Power created the Empowered Community, an online community of residential customers, to measure customer perceptions on a variety of company-related topics, including energy efficiency. The community has over 2,100 actively engaged members from across Idaho Power's service area. Idaho Power typically sends one survey per month to active members but in 2020, fewer surveys were conducted out of respect to members and issues associated with COVID-19. In 2020, Idaho Power included seven energy efficiency messages with survey invitations to members resulting in almost 12,400 touchpoints.

Recruitment for the Empowered Community is conducted on an annual basis to refresh the membership each year. Throughout February and March 2020, various types of recruitment were conducted with residential customers including bill inserts, messages on paperless billing emails, pop-up ads on My Account, direct emails, and social media posts. In 2020, 595 new members were added to Empowered Community.

## Seasonal Sweepstakes

In 2020, Idaho Power ran two seasonally focused energy efficiency sweepstakes—the Backyard BBQ Summer Giveaway in August and the Crisp and Cozy Fall Giveaway in November.

Both sweepstakes aimed to maintain awareness about energy efficiency and the impact a small change can make.

The summer sweepstakes ran July 24 through August 2 and received 7,316 entries. Customers were asked to comment—through social media or on the Idaho Power website—with a way they saved energy during the hot summer months. In return, participants were entered to win a package of energy-efficient goodies for the backyard. The sweepstakes was promoted with email messaging to 184,146 customers, and social media posts reached 2,363 customers, receiving 617 post engagements (likes, comments, shares). The sweepstakes was also promoted on idahopower.com, through a pop-up ad on the My Account homepage.

The fall sweepstakes ran November 13-22 and received 7,190 entries. Customers were asked to comment—through social media or on the Idaho Power website—with a way they saved energy during the cold months. In return, participants were entered to win one of five toaster oven/air fryer combo units. The sweepstakes was promoted with email messaging to 210,592 customers, and paid social media posts reached 38,566 customers, receiving 2,879 post engagements. The sweepstakes was also promoted through a pop-up ad in the company's My Account homepage. It was featured in a *News Briefs* to media outlets and was promoted on idahopower.com.

## Customer Satisfaction

Idaho Power conducts the Burke Customer Relationship Survey each year. In 2020, 61% of residential survey respondents indicated Idaho Power is meeting or exceeding their needs with information on how to use energy wisely and efficiently.

Sixty-three percent of residential respondents indicated Idaho Power is meeting or exceeding their needs by encouraging energy efficiency with its customers. Fifty-two percent of Idaho Power residential customers surveyed indicated the company is meeting or exceeding their needs in offering energy efficiency programs, and 41% of the residential survey respondents indicated they have participated in at least one Idaho Power energy efficiency program. Of the residential survey respondents who have

participated in at least one Idaho Power energy efficiency program, 89% are “very” or “somewhat” satisfied with the program.

Based on surveys conducted in 2020, Idaho Power ranked second out of 16 utilities included in the west region midsize segment of the *J.D. Power and Associates 2020 Electric Utility Residential Customer Satisfaction Study*. Sixty-nine percent of the residential respondents in this study indicated they were aware of Idaho Power’s energy efficiency programs, and on an overall basis, those customers were more satisfied with Idaho Power than customers who are unaware of the programs. Idaho Power customer awareness of energy efficiency programs is among the highest in the nation.

See the individual programs for program-specific customer satisfaction survey results.

### **Field Staff Activities**

Idaho Power’s residential and commercial energy advisors and EOEAs started 2020 with in-person meetings and events to promote energy efficiency programs and offerings with customers. When COVID-19 restrictions were implemented in mid-March, company staff pivoted away from these face-to-face interactions. Idaho Power’s attendance at large, legacy community events such as home and garden shows, remodeling shows, science, technology, engineering, and mathematics (STEM) nights, science fairs, back to school nights, etc., was not an option, as many of these events were postponed or canceled.

Instead, energy advisors used phone, email, mail, text and virtual presentations to stay connected with customers. The energy advisors conducted a callout campaign to residential customers to promote ESKs and created giveaway bags for senior centers that included energy-efficient measures and gifts: a LED lamp, nightlight, energy efficiency information, puzzles, and games. Energy advisors delivered these items while social distancing and wearing masks to keep everyone safe.

Though much of 2020 was spent developing alternative methods for customer interaction, the changes also allowed the company to offer more training and development sessions for energy advisors to expand their knowledge, skills, and abilities about energy efficiency programs, measures, and technologies. Topics included: lighting, building envelope, HVAC, and refrigeration.

## A/C Cool Credit

	2020	2019
<b>Participation and Savings</b>		
Participants (homes)	22,536	23,802
Energy Savings (kWh)	n/a	n/a
Demand Reduction (MW)	19	24
<b>Program Costs by Funding Source</b>		
Idaho Energy Efficiency Rider	\$405,402	\$495,703
Oregon Energy Efficiency Rider	\$25,200	\$30,762
Idaho Power Funds	\$334,418	\$351,200
Total Program Costs—All Sources	\$765,020	\$877,665
<b>Program Levelized Costs</b>		
Utility Levelized Cost (\$/kWh)	n/a	n/a
Total Resource Levelized Cost (\$/kWh)	n/a	n/a
<b>Benefit/Cost Ratios</b>		
Utility Benefit/Cost Ratio	n/a	n/a
Total Resource Benefit/Cost Ratio	n/a	n/a

### Description

Originating in 2003, A/C Cool Credit is a voluntary, dispatchable demand response program for residential customers in Idaho and Oregon. Using communication hardware and software, Idaho Power cycles participants' central A/C units or heat pumps off and on via a direct load control device installed on the A/C unit. This program enables Idaho Power to reduce system capacity needs during times when summer peak load is high.

Customers' A/C units are controlled using switches that communicate by powerline carrier (PLC) using the same system utilized by Idaho Power's automated metering system (AMI). The switch is installed on each participating customer's A/C unit and allows Idaho Power to control the unit during a cycling event.

The cycling rate is the percentage of an hour the A/C unit will be turned off by the switch. For instance, with a 50% cycling rate, the switch will cycle the A/C unit off for about 30 (nonconsecutive) minutes of each hour. Idaho Power tracks the communication levels to validate whether the signal reaches the switches. Switch communication may be interrupted for a variety of reasons: the switch may be disconnected, an A/C unit may not be powered on, the switch may be defective, or the participant's household wiring may prevent communication. Sometimes it is difficult for the company to detect why the switch is not communicating.

These are the program event guidelines:

- June 15 through August 15 (excluding weekends and July 4)
- Up to four hours per day
- A maximum of 60 hours per season
- At least three events per season

At the end of the season, Idaho Power or a third-party evaluates the events to determine peak demand savings.

## Program Activities

In 2020, about 22,500 customers participated in the program, with approximately 262 in Oregon, and 22,274 Idaho. Three cycling events occurred, and all were successfully deployed (Table 10). The cycling rate was 50% and the communication level exceeded 90% for each event. With a greater number of residents being at home due to the COVID-19 pandemic, the company wanted to minimize the impact of A/C cycling and to mitigate the potential for participation dropouts, so the cycling percentage was reduced from the typical 55% to 50%. The incentive remained \$15 per season, paid as a \$5 bill credit on the July, August, and September bills.

**Table 10. A/C Cool Credit demand response event details**

Event Details	Thursday, July 16	Thursday, July 30	Wednesday, August 5
Event time	4–7 p.m.	4–7 p.m.	4–7 p.m.
Average temperature	93°F	103°F	98°F
Maximum load reduction (MW)	15.57	19.39	12.38

Throughout 2020, Idaho Power continued site visits to check switches and equipment to improve communication levels. However, due to COVID-19 restrictions, the company temporarily suspended site visits in March 2020. In mid-May, visits resumed with these restrictions: limiting site visits to the Treasure Valley area, calling each customer before the visit to explain process and safety measures, and not visiting any site where the customer was uncomfortable with the process. While at the site, contractors wore masks, maintained a 6 ft social distance from customers, and performed enhanced disinfecting activities. Due to these protocols to ensure safety as a result of COVID-19, not all device checks were completed. The company will continue work to ensure devices participating in the program are communicating on an ongoing basis.

Idaho Power printed new informational stickers that were placed on devices during site visits. The sticker provides a safety warning and toll-free number customers can call with questions.

## Marketing Activities

Per the settlement agreement reached in Idaho Case No. IPC-E-13-14 and Oregon Case UM 1653, Idaho Power did not actively market the A/C Cool Credit program in 2020.

Before the cycling season began, Idaho Power sent current participants a postcard to remind them of the program specifics. Idaho Power also attempted to recruit customers who had moved into a home that already had a load control device installed and previous participants who changed residences to a location that may or may not have a load control device installed. The company used postcards, phone calls, direct-mail letters, and home visits (leaving door hangers for those not home) to recruit these customers. Participating customers received a thank you and a credit reminder message on their summer bills. At the end of the summer, a thank you postcard was sent to program participants.

## Cost-Effectiveness

Idaho Power determines cost-effectiveness for its demand response program under the terms of IPUC Order No. 32923 and OPUC Order No. 13-482. Under the terms of the orders and the settlement, all Idaho Power's demand response programs were cost-effective for 2020.

The A/C Cool Credit program was dispatched for three events (totaling nine event hours) and achieved a maximum demand reduction of 19.4 MW. The total expense for 2020 was \$765,020 and would have remained the same if the program was fully used for 60 hours because there is no variable incentive paid for events beyond the three required events.

A complete description of Idaho Power cost-effectiveness of its demand response programs is included in *Supplement 1: Cost-Effectiveness*.

## Evaluations

In 2020, Idaho Power performed an internal review to evaluate the demand reduction over the course of the three event days. The demand reduction was calculated by comparing the actual average load for participating customers on each of the three event days to the corresponding baseline. The baseline is estimated by averaging the three non-event weekdays with the highest usage, out of the 10 non-event weekdays prior to an event. The baseline is then adjusted to match the event day in the hour before the start of the event.

The second event on July 30 achieved the highest peak demand reduction of 0.86 kW per participant for a total peak reduction of 19.4 MW with line losses.

For 2020, the maximum potential capacity of the program was calculated to be 31.4 MW. This is based on 1.4 kW per participant which the company has achieved in the past with 65% cycling on a very hot day.

The complete report is available in *Supplement 2: Evaluation*.

## 2021 Program and Marketing Strategies

Idaho Power does not anticipate any program changes in 2021, though it will conduct site visits with the restrictions detailed above, as necessary.

Per the terms of the above-mentioned settlement agreements, Idaho Power will not actively market the A/C Cool Credit program to solicit new participants but will accept them upon request, regardless of whether they previously participated. The company will continue to recruit previous participants who have moved, as well as new customers moving into homes that already have a load-control device installed.



## Easy Savings: Low-Income Energy Efficiency Education

	2020	2019
<b>Participation and Savings</b>		
Participants (coupons)	155	430
Energy Savings (kWh)	10,628	45,150
Demand Reduction (MW)	n/a	n/a
<b>Program Costs by Funding Source</b>		
Idaho Energy Efficiency Rider	\$0	\$0
Oregon Energy Efficiency Rider	\$0	\$0
Idaho Power Funds	\$9,503	\$145,494
Total Program Costs—All Sources*	\$9,503	\$145,494
<b>Program Levelized Costs</b>		
Utility Levelized Cost (\$/kWh)	\$0.299	\$0.885
Total Resource Levelized Cost (\$/kWh)	\$0.299	\$0.885
<b>Benefit/Cost Ratios</b>		
Utility Benefit/Cost Ratio	n/a	n/a
Total Resource Benefit/Cost Ratio	n/a	n/a

\* Total Program Costs are by calendar year; allotments provided to CAP agencies the beginning of LIHEAP's fiscal year each October. Program and monetary allotment moving to a calendar year in 2021.

### Description

As a result of IPUC Case No. IPC-E-08-10 and Order Nos. 30722 and 30754, Idaho Power committed to fund energy efficiency education for low-income customers and provide \$125,000 to Community Action Partnership (CAP) agencies in its service area annually, on a prorated basis. These orders specified that Idaho Power provide educational information to Idaho customers who heat their homes with electricity.

From 2009 to 2017, using CAP agency personnel, the program distributed ESKs and corresponding educational materials to participants of the Low Income Home Energy Assistance Program (LIHEAP) who heat their homes with electricity. In 2017, with input from a planning committee consisting of representatives from Community Action Partnership Association of Idaho (CAPAI), CAP Agencies, and the IPUC, Idaho Power discontinued kit distribution and offered a pilot incentive: a coupon for a free electric HVAC tune-up and one-on-one education with the goal of helping low income customers learn ways to reduce their energy costs and have a maintained HVAC system.

To provide services for the program, regional HVAC company owners sign contractor guidelines and acknowledge the two-fold goal of the program—customer education and equipment tune-up. During the customer visit, HVAC contractors perform the tune-up and teach residents how to change furnace filters. They also explain how regular maintenance improves overall performance and answer questions about the specific heating equipment and ways to save energy. The contractor leaves behind a customer satisfaction survey that can be mailed to CAPAI or completed online. Respondents are entered into a drawing for a gift card.

### Program Activities

Coupons were redeemed by customers for electric heating system tune-ups, with all coupon redemptions occurring by end of calendar 2019. Of the \$125,000 Idaho Power allotted to CAP agencies for this program, 30% or \$37,500 was provided for CAP agency administration of the program. Approximately \$57,965 was paid to HVAC contractors for their service, both costs were recognized as part of calendar

2019 activity. The cost per coupon averaged just over \$373. The 2020 allotment was provided to the CAP agencies in late 2019 since the program followed the LIHEAP fiscal year of October 1 through September 30. No additional money was sent in 2020 and the only actual costs assigned to the program were in administrative labor. Historically, next year's allotment would have been provided in late 2020; however, due to Idaho Power and the CAP agencies moving the program to a calendar year, the allotment will be provided in early 2021.

In March 2020, due to the COVID-19 restrictions, in-home program activity was suspended in order to help keep contractors and customers safe. As a result, fewer coupons were redeemed in 2020 as compared to previous years. The funds that were not used to pay for redeemed coupons in 2020 will pay for additional tune-up coupons in 2021, when contractors start providing services for Idaho Power energy efficiency programs.

The planning committee found the original \$300 maximum per coupon was frequently inadequate to address the costs associated with minor tuning and/or repairing of the heating systems and time to visit with customers. In 2019, the planning committee increased the coupon maximum to \$600 and this amount was increased to \$700 during 2020. This allowed contractors to spend extra time with customers and to travel further to rural areas. With the additional funds available per coupon, contractors agreed to give each customer 12 furnace filters.

### **Marketing Activities**

The Easy Savings program is included under “Savings For Your Home” on the Idaho Power website in the “Income Qualified Customers” section.

### **Cost-Effectiveness**

Because the Easy Savings program is primarily an educational and marketing program, the company does not apply traditional cost-effectiveness tests to it.

The Easy Savings HVAC coupon claimed 68.57 kWh of annual savings for each qualifying customer. The savings value is based on a simple average of the single-family and manufactured home-tune ups from the 2018 energy efficiency potential study. In 2021, the program will claim 68.01 kWh in savings from the 2020 energy efficiency potential study.

### **2021 Program and Marketing Strategies**

The planning committee and participating regional HVAC contractors agreed to continue the Easy Savings program and to keep the maximum dollar amount available to contractors per customer visit at \$700 when 12 filters are left with customer. This allows the HVAC contractor to make minor repairs to furnaces, air conditioners, and heat pumps while providing reimbursed time with the customer to review educational information.

Coupons for the 2021 program season will be distributed once services are safe to resume. CAP agencies will also receive helpful energy efficiency education materials to provide to regional HVAC contractors to share with customers.

## Educational Distributions

	2020	2019
<b>Participation and Savings</b>		
Participants (kits/giveaways)*	97,228	95,528
Energy Savings (kWh) **	19,909,741	19,250,220
Demand Reduction (MW)	n/a	n/a
<b>Program Costs by Funding Source</b>		
Idaho Energy Efficiency Rider	3,912,564	\$2,989,184
Oregon Energy Efficiency Rider	\$91,912	\$91,688
Idaho Power Funds	\$1,547	\$0
Total Program Costs—All Sources	\$4,006,023	\$3,080,873
<b>Program Levelized Costs</b>		
Utility Levelized Cost (\$/kWh)	\$0.037	\$0.021
Total Resource Levelized Cost (\$/kWh)	\$0.037	\$0.021
<b>Benefit/Cost Ratios***</b>		
Utility Benefit/Cost Ratio	1.45	2.06
Total Resource Benefit/Cost Ratio	2.19	3.32

\*Participant counts do not include 2019 HER Pilot Program treatment size of 24,976, and 2020 HER program expansion treatment size of 127,138.

\*\*2019 savings include HER Pilot Program savings for August 1, 2018–December 31, 2019. Savings in 2020 and forward are based on a calendar year.

\*\*\*2020 cost-effectiveness ratios include evaluation. If evaluation expenses were removed from the program's cost-effectiveness, the UCT and TRC would be 1.48 and 2.23, respectively.

### Description

Designated as a specific program in 2015, the Educational Distributions effort is administered through the REEEI and seeks to use low-cost and no-cost channels to deliver energy efficiency items with energy savings directly to customers. As with the initiative, the goal for these distributions is to drive behavior change and create awareness of, and demand for, energy efficiency programs in Idaho Power's service area.

Idaho Power selects items for distribution if the initial analysis indicates the measure is either currently cost-effective or expected to be cost-effective. Typically, selected items have additional benefits beyond traditional energy savings, such as educating customers about energy efficiency, expediting the opportunity for customers to experience newer technology, or allowing Idaho Power to gather data or validate potential energy savings resulting from behavior change.

Idaho Power recognizes the need to educate and guide customers to promote behavior change and awareness and will plan program activities accordingly. Items may be distributed at events and presentations, through direct-mail, or during home visits conducted by energy advisors.

### Energy-Saving Kits

To make it easier for families to manage energy use, Idaho Power works with a kit vendor to offer two versions of its free ESKs: one for homes with electric water heaters and one for homes with alternate-source water heaters. Customers enroll at [idahopower.com/save2day](http://idahopower.com/save2day), by calling 800-465-6045, or by returning a postcard. A kit is sent directly to the customer's home.

Each ESK contains nine LED lightbulbs (six 800-lumen lightbulbs and three 480-lumen lightbulbs), a digital thermometer (to check refrigerator, freezer, and water temperatures), a shower timer, a water

flow-rate test bag, an LED nightlight, and educational materials. In addition, the kit for homes with electric water heaters contains a high-efficiency showerhead with a thermostatic shower valve (TSV) and three faucet aerators—one for the kitchen and two for bathrooms.

### ***Energy-Saving Kits as Giveaways***

Idaho Power offers ESKs as giveaways, in limited quantities, at presentations and small events to garner additional interest in energy efficiency and to encourage immediate action and behavior change. In these circumstances, Idaho Power cannot confirm the source of water heating in the recipient's home or whether the recipient has already received a kit. Therefore, the company gives away the more basic version of the kit for homes with alternate-source water heaters; energy savings is garnered from lighting changes and not dependent on the source of water heat.

### ***Home Energy Report Program***

Idaho Power works with two third-party contractors to deliver the HER Program. The objective of the HER Program is to encourage customer engagement in regard to electricity use in order to produce average annual behavioral savings of 1 to 3%. Secondary objectives are to maintain or increase customer satisfaction and to encourage engagement with energy use, including online tools and participation in other energy efficiency programs.

The periodic reports provide customers with information about how their homes' energy use compares with similar homes. The *Home Energy Reports* also give a breakdown of household energy use and offer suggestions to help customers change their energy-related behaviors. The program contractor estimates energy savings that result from customers receiving the report by completing a statistical comparison of the energy use of the report recipients against the energy use of a similar control group.

### ***LED Lightbulbs as Giveaways***

Giving away LED lightbulbs is an effective way to connect Idaho Power with its customers and begin productive conversations around energy efficiency. Idaho Power field staff and energy efficiency program specialists seek opportunities to educate customers about LEDs, and to offer customers a free lightbulb to use immediately in their own homes.

### ***LED Nightlights as Giveaways***

Nightlights are a popular giveaway item with Idaho Power customers and provide another opportunity to share information about energy efficient LED technology and safe, energy efficient ways to provide nighttime lighting. Energy advisors are encouraged to use nightlights as a bridge to these discussions.

### ***Student Energy Efficiency Kit Program***

The Student Energy Efficiency Kit (SEEK) program provides fourth- to sixth-grade students in schools in Idaho Power's service area with quality, age appropriate instruction regarding the wise use of electricity. Each child who participates receives an energy efficiency kit. The products in the kit are selected specifically to encourage energy savings at home and engage families in activities that support and reinforce the concepts taught at school.

Once a class enrolls in the program, teachers receive curriculum and supporting materials. Students receive classroom study materials, a workbook, and a take home kit containing the following:

- Three LED lightbulbs
- A high-efficiency showerhead
- An LED nightlight
- A furnace filter alarm

- A digital thermometer for measuring water and refrigerator/freezer temperatures
- A water flow-rate test bag
- A shower timer

At the conclusion of the program, students and teachers return feedback to Idaho Power's vendor indicating how the program was received and which measures were installed. The vendor uses this feedback to provide a comprehensive program summary report showing program results and savings.

Unlike most residential programs offered by Idaho Power, SEEK results are reported on a school year basis, not by calendar year.

### ***Welcome Kits***

Idaho Power uses a vendor to mail Welcome Kits to brand new customers between 35 and 45 days after electric service begins at their residence. Each kit contains four LED lightbulbs, a nightlight, a greeting card, and a small flipbook containing energy-saving tips and information about Idaho Power's energy efficiency programs. The kits are intended to encourage first-time customers to adopt energy-efficient behaviors early in their new homes.

### **Program Activities**

#### ***Energy-Saving Kits***

In 2020, 39,667 kits were shipped to customer homes: 16,378 kits to homes with electric water heaters and 23,289 kits to homes with either alternate-source water heaters or those that had previously received a kit under a different account owner. The kits for homes with electric water heaters continued to include an integrated high-efficiency showerhead with a TSV. TSVs reduce the behavioral waste caused by letting the water run unchecked while it warms up. With a TSV, water flow is automatically reduced to a trickle when the water reaches 95°F, sending a signal that the water is ready. Once ready, the customer simply pulls a toggle string to resume normal water flow.

Kits were distributed to all geographic regions within Idaho Power's service area: 38,571 to Idaho residences and 1,096 to Oregon.

Since program inception in June of 2016, Idaho Power customers have requested over 200,000 kits—representing just under a 50% saturation rate. In the past two years, organic participation has waned with almost all new sign-ups driven by the vendor's marketing efforts. After reviewing the future of lighting savings, the company proposed sunsetting the program in December of 2020. With EEAG's support, the program was officially closed on December 11, 2020 when the kit inventory at the warehouse was expended.

#### ***Energy-Saving Kits as Giveaways***

Face-to-face events, presentations, and field staff interactions across Idaho Power's three regions were significantly curtailed as the company worked to safely comply with Idaho's COVID-19 guidelines. Even so, field staff found safe ways to deliver 100 kits to customers expressing the need for greater energy efficiency at home. Due to changes in cost-effectiveness and the sunsetting of the ESK program, these kits will not be available as a giveaway item in 2021.

#### ***Home Energy Report Program***

Idaho Power, in collaboration with its contractors, transitioned the HER Pilot into a full-bodied program in June 2020.

The lessons learned from the pilot were applied and a new group of 106,941 treatment customers and a corresponding control group was formed. The new HER Program participants received a welcome letter and introductory report in early June, followed by regular bi-monthly reports in August, October, and December.

In addition, 20,197 of the previous pilot participants continued to receive quarterly reports in February, May, August, and November.

As with the pilot, the expansion was designed based on standard randomized control trial (RCT) methodology with treatment and control groups sized appropriately to detect statistically significant savings at or above 1.2% and allowing for approximately 15% attrition per year.

The savings results for the continuing participants that were in the pilot showed statistically significant estimated energy savings for the year to range from between 1.25% and 3.25%. In keeping with the company's commitment to optimize the savings and apply lessons learned, the lowest year-round users were removed from the treatment group prior to the expansion. The aggregate savings for continuing participants was 5,299 MWh across all groups. Between June 1 and December 31, the expansion participants used an average of 50.6 fewer kWh per home than their control group counterparts—a savings of 0.56%. The smaller saving percentage was expected for the expansion group as it generally takes about 6 months to ramp up savings. When viewed in aggregate, the estimated savings for all program participants was about 0.74% below their respective control groups, for a total of 10,428 MWh. On average, program participants are providing statistically significant savings at between 50 to 363 kWh annually per home.

Idaho Power's customer solutions advisors responded to 1,087 HER Program-related phone calls during the year. Given that 488,802 reports were delivered, this represents a call-rate of just under 0.22%. The participant-driven opt-out rate in 2020 was 0.12%—significantly lower than the industry average of 1%. Overall attrition in 2020 was 9.4% (includes opt-outs, move-outs, etc.). No customer satisfaction survey was fielded in 2020; however, a process evaluation was conducted.

### ***LED Lightbulbs as Giveaways***

In 2020, Idaho Power energy advisors delivered educational messages and LEDs to attendees at the Idaho Remodeling & Design Show, the Canyon Home & Garden Show and several Lunch & Learns for local employers. Throughout the summer, the EOEAs worked closely with the senior centers to establish drive-through LED giveaway events. At these events, 3,550 LEDs were innovatively packaged with educational materials, energy-related activities, and well-wishes and given to seniors in the service area. In the fall, the EOEAs executed a second outreach effort, giving away LEDs and marketing virtual educational presentations in an effort to establish new connections with junior high and high school teachers.

By the end of the year, Idaho Power employees had safely delivered a brief energy efficiency message and distributed 10,250 lightbulbs directly to customers.

### ***LED Nightlights as Giveaways***

Early in 2020, the company approached EEAG to gain support for adopting nightlights as the newest educational distribution item. Although these devices are highly sought after by customers and have been a part of the kit programs for some time, the company had not previously claimed related savings. EEAG suggested the company should claim savings and that nightlights carry a visible statement "Uses LED technology." In addition, Idaho Power created an educational card that was developed to accompany the nightlights to further the conversation around energy efficient lighting practices.



By year-end, Idaho Power staff and energy advisors had distributed 4,965 nightlights along with an educational message.

### ***Student Energy Efficiency Kit Program***

During the 2019 to 2020 school year, recruiting activities for SEEK transitioned to the vendor, Franklin Energy. Idaho Power EOEAs continued to promote the program during their school visits and interactions with fourth to sixth grade teachers. Due to COVID-19 school closures early in 2020, the vendor stopped shipping program materials to schools in mid-March. By then, a number of teachers had received materials, but had not yet completed the program. The EOEAs made multiple personal contacts to offer support, to offer virtual delivery options, and to determine the status and plans for the remaining school year. Overall, the result of COVID-19 school closures was lower participation levels for the full school year and fewer student surveys returned. Despite COVID-19 related challenges during the winter/spring semester, Franklin Energy delivered 9,800 kits to 361 classrooms in 135 schools within Idaho Power's service area. This resulted in 1,880 MWh of savings.

### ***Welcome Kits***

Idaho Power continued to contract with a third-party vendor, Tinker Programs, to distribute a smaller energy efficiency kit for the company's brand-new customers. At the onset of 2020, materials included in the kit box were visually updated to align with current marketing materials. Although adjustments in kit contents were considered, the cost-savings did not justify making a change at that time.

The company sent nearly 32,500 Welcome Kits to customers in 2020—a slight increase over the quantity delivered in 2018 and 2019.

Idaho Power continues to receive positive customer feedback indicating these kits are well-received.

## **Marketing Activities**

### ***Energy-Saving Kits***

Marketing efforts included two direct-mail campaigns from the kit vendor: one to about 221,300 customers in July and the final postcard, which utilized "last chance" language, to 10,000 customers in November. The July mailer was divided into two mailings: one for ordering kits online and the other for returning an order card by mail (known as a business reply card, or BRC). The conversion rate for direct-mailers declined from 18 to 20% in previous years to about 12.5% in 2020 due to the fact that most eligible customers had already received one or more invitations to participate.



**Limited-time Offer**  
**FREE Energy-saving Kit**

We make it easy to save energy and money by offering FREE energy-efficient products, shipped right to your door.

**Kits available until December 11, 2020 -or while supplies last.**  
**[ipcsave2day.com/kit!](http://ipcsave2day.com/kit!)**

Order your kit using the ID number on the back of this card.



080-0051-10-00

**Figure 9. Post card offering last chance to get a free ESK**

Idaho Power sent ESK marketing emails to customers for the first time in April and October 2020. In April, an initial email was sent to 63,328 customers who hadn't yet ordered their kits. The initial email was then followed up with a remarketing email to those who didn't open the first email. The April remarketing email was sent a week later to 52,934 of the initial customers. This effort resulted in 7,141 customer visits to the ESK website, with 4,542 customers submitting an order. The initial October email, which used last-chance language, was sent to 114,604 customers with a follow-up remarketing email sent to 108,180 of those customers, resulting in 17,365 click throughs to the website and 10,445 kit orders. Accounting for approximately 15,000 new kit orders, the use of email marketing was an overwhelming success, especially considering it is a low-cost tactic.

Due to COVID-19, employees were not able to showcase ESKs at as many trade shows or other community events in 2020. But the kits continued to be popular items of discussion on Idaho Power's social media channels, with customers posting and writing comments thanking Idaho Power for the kit, encouraging friends and strangers to order their own, and asking questions about the ability to order more. Customers sharing how much they like and appreciate the kits is a strong marketing tool for Idaho Power.



Minnie Marie is in Boise, Idaho.  
 October 14, 2020 · 🌐  
 Awesome! Thank you [Idaho Power](#) For my free energy saving kit! It came with 9 led lightbulbs, 1 led night light, 1 refrigater/freezer thermometer, 1 shower tim... [See More](#)

**Figure 10. Customer post thanking Idaho Power for the free ESK**

As the program wrapped up, Idaho Power used last-chance language on social media to encourage customers to order their kits before they were gone.

The kit was promoted to recipients of the *Home Energy Reports* in February/March (to those who hadn't already received a kit).

### ***Energy-Saving Kits as Giveaways***

Idaho Power field staff educated customers about energy efficiency by offering a free ESK with educational items and LED lightbulbs to get them started and on their way to saving energy.

### Home Energy Report Program

Because the HER Program is based on the randomized control trial methodology, the reports cannot be requested by customers, therefore the program is not marketed. The periodic reports were, however, used to cross-market Idaho Power’s other energy efficiency programs, with care taken to promote only those programs and offerings compatible with safety during the pandemic. My Account alerts and online activities received special callouts in 2020.

### LED Lightbulbs as Giveaways

In 2020, as Idaho Power field activities paused for COVID-19 safety, staff and energy efficiency program specialists looked for new opportunities to safely distribute LEDs and educate customers. In the absence of one-on-one educational conversations between employees and customers at events, new educational activities and bookmarks were created to accompany the LEDs and to reinforce key concepts.

### LED Nightlights as Giveaways

New in 2020, EOEAs also distributed LED nightlights, complete with a new educational card to help promote its efficiency and cost-savings. The majority of the 2020 distributions were to seniors across the service area—with an emphasis on rural communities.



**Use this LED night light and save!**

**\$27** The amount you'll save each year when you stop leaving your bathroom or hall light on all night.

**\$2-4** The amount you'll save when you replace an incandescent night light.

**24¢** The amount you'll spend to use this night light all year.

Projections are based on 12 hours of use per day for a year.

**LEDs provide savings, safety, security and convenience**

**A sensor automatically turns this night light off when it's light.**

- Use this night light in the bathroom, hallway, children's rooms and kitchen — anywhere it will prevent the need to turn on a light.
- LED bulbs don't get hot — making them a safer choice.
- Save even more when you install LEDs in fixtures throughout your home.



**LEDs provide savings, safety, security and convenience**

Figure 11. LED nightlight education card

### Student Energy Efficiency Kit Program

During the 2019-2020 school year, Franklin Energy staff handled most of the marketing and recruitment of teachers via email and phone calls to the eligible schools. Idaho Power EOEAs continued to promote the program through the *Community Education Guide* and in conversations with teachers throughout the year.

### Welcome Kits

The Welcome Kits are not requested by customers; therefore, they are not marketed. Instead, each week Idaho Power sends a list of new customers to the vendor to fulfill the order. However, the kits are used



to cross-market other programs through the inclusion of a small flipbook containing energy-saving tips and information about Idaho Power’s energy efficiency programs.

### **Cost-Effectiveness**

In situations where Idaho Power managed energy efficiency education and distribution through existing channels, the cost effectiveness calculations were based on the actual cost of the items. Conversely, if outside vendors were used to assist with distribution, the cost effectiveness calculations included all vendor-related charges.

The UCT and TRC for the program is 1.45 and 2.19 respectively. If the amount incurred for the 2020 evaluation was removed from the program’s cost-effectiveness, the UCT would be 1.48 while the TRC would be 2.23.

### **Energy-Saving Kits**

The RTF provides mail-by-request deemed savings for LED lightbulbs, faucet aerators, and the integrated high-efficiency showerheads with a TSV. The RTF mail-by-request deemed savings values are discounted to reflect the potential that not all the kit items may be installed. The LED lightbulbs each have a deemed savings value of 6.97 kWh per year. The by-request faucet aerator savings are 36.84 kWh when installed in a kitchen and 22.08 kWh when installed in the bathroom. For the integrated 1.75 gallon per minute (gpm) low-flow showerhead with TSV, the RTF assumes an installation rate of 90%. Based on Idaho Power’s follow-up survey results, it appears the installation rate is approximately 57%. For 2020, the Idaho Power adjusted the savings to be 114.72 kWh annually.

Historically, Idaho Power did not claim the savings for the nightlights included in the ESK. After discussing the potential of claiming nightlight savings with EEAG, Idaho Power requested that the nightlight savings associated with the kits be researched as part of the 2020 evaluation. After surveying customers, the evaluator calculated that Idaho Power could claim 12 kWh per nightlight.

The annual savings for an ESK for a home with an electric water heater is approximately 270 kWh. The annual savings for a kit for a home with a non-electric water heater is approximately 75 kWh.

### **Energy-Saving Kits as Giveaways**

The giveaway kits contain the same measures as the non-electric ESK. For the nine LED lightbulbs included in the kit, Idaho Power used the RTF’s giveaway deemed savings value of 6.97 kWh per bulb. The annual savings for each giveaway kit is approximately 75 kWh.

### **Home Energy Report Program**

HER Program savings are calculated by the program implementers through an internal evaluation. Savings for the 2020 program year are calculated at 10,427,940 kWh. A net-to-gross (NTG) factor of 95% is applied at the measure cost-effectiveness level to account for potential double counting of savings. Double counting occurs when a customer participates in another energy efficiency program due to their participation in the HER Program. The offering was not cost-effective for 2020 largely due to the additional costs associated with the expansion of the program. Additionally, the savings associated with the expansion only reflect a partial year of savings and it generally takes six months to ramp up savings. It is anticipated that the program will be cost-effective in future years even while claiming a one-year savings life.

### **LED Lightbulbs and Nightlights as Giveaways**

For the LED giveaways, Idaho Power used the giveaway deemed savings provided by the RTF. The RTF-deemed annual savings of 6.97 kWh includes assumptions regarding the installation rate,

efficiency levels of the existing lightbulb, and the location of the installation. For nightlights, Idaho Power used the DNV GL calculated savings of 12 kWh as explained in the ESKs cost-effectiveness section.

### **Student Energy Efficiency Kit Program**

The cost-effectiveness analysis for the SEEK offering was based on the savings reported by the kit provider during the 2019 to 2020 school year. The kit provider calculated the annual savings based on information collected from the participants' home surveys and the installation rate of the kit items. Questions on the survey included the number of individuals in each home, water-heater fuel type, flow rate of old showerheads, and the wattage of any replaced lightbulbs. The response rate for the survey was approximately 31%. The survey gathers information on the efficiency level of the existing measure within the home and which measure was installed. The energy savings will vary for each household based on the measures offered within the kit, the number of items installed, and the existing measure that was replaced. Based on the feedback received from the 2019 to 2020 school year the savings for each kit was approximately 192 kWh annually per household on average, and the program saved 1,879,542 kWh annually. A copy of the report is included in *Supplement 2: Evaluation*.

### **Welcome Kits**

For the four LED lightbulbs included in the kit, Idaho Power use the RTF's giveaway deemed savings value of 6.97 kWh per bulb. For the nightlight, Idaho Power used the DNV GL calculated savings of 12 kWh per nightlight as explained in the ESKs cost-effectiveness section. The annual savings for each kit is 39.88 kWh.

### **Evaluations**

In 2020, Idaho Power contracted with DNV GL to conduct an impact and process evaluation on the Educational Distributions program and process evaluation for the HER Program. The Educational Distributions impact evaluation calculated an overall savings realization rate of 97% and a realization rate for the count of kits delivered of 100%. The savings realization rates for Welcome Kits, Energy-Saving Kits, and SEEK was 100%, 97%, and 97% respectively.

The evaluation found a well-run program with satisfactory processes and satisfied customers. A Welcome Kit participant survey was completed and concluded 12 kWh savings could be claimed for each nightlight included in the kits.

Idaho Power will consider any recommendations and responses will be reported in the *Demand-Side Management 2021 Annual Report*. See the complete analysis report in *Supplement 2: Evaluation*.

The HER Program process evaluation was started alongside the Educational Distributions evaluation. However, due to some late findings, additional analysis was required to complete the evaluation. The evaluation report will be completed in April 2021 and will be included in the 2021 annual report.

### **2021 Program and Marketing Strategies**

Idaho Power conducted an impact and process evaluation for the Educational Distributions program and a process evaluation for the HER Program in 2020. Actionable recommendations were either implemented in 2020 or will be addressed in 2021 and discussed in the 2021 DSM Report.

### **Home Energy Report Program**

Idaho Power will continue to deliver *Home Energy Reports* to active program participants on a quarterly schedule with reports arriving in February, May, August and November. Participants with usage tied to high A/C use or winter heating will receive seasonal reports in either May or November, as appropriate.



Idaho Power has committed to upgrading the software platform, which should provide opportunities to enhance the current *Home Energy Report* template and/or messaging. As new options become available, the company will actively assess them with an eye toward improving savings and enhancing the customer experience.

### ***LED Nightlights as Giveaways***

Nightlights will be the primary opportunity to garner savings in conjunction with educational discussions and customer conversations. Field staff will look for opportunities to discuss LED technology and savings, encourage in-home adoption of LED lighting, and promote the use of LED nightlights as an energy efficient, safe nighttime lighting option.

### ***Student Energy Efficiency Kit Program***

Idaho Power will continue to offer the SEEK program and plans to review the materials and pricing to ensure the program remains competitive in the marketplace.

The company will continue to leverage the positive relationships Idaho Power's EOEAs have within the schools to maintain program participation levels. Adjustments may be made in the marketing and delivery processes based on kit pricing and vendor recommendations and capabilities.

### ***Welcome Kits***

In 2021, due to new RTF savings for lightbulbs, the kits will no longer be cost-effective as a stand-alone item. However, Idaho Power will continue to offer Welcome Kits to first-time customers. The Welcome Kit will cross-promote other energy efficiency programs and encourage new customers to adopt energy efficient behaviors upon moving into their new homes, and their cost will be included as part of Idaho Power's energy efficiency promotion efforts. Idaho Power does plan to count what little savings that can be claimed from the items in the kits.

### ***Other Educational Distributions***

Idaho Power will continue to look for opportunities to engage customers with new technologies that stress the importance of energy-efficient behaviors at home. The company is currently exploring options that may provide some customers with access to items formerly available through the ESK Program.

## Energy Efficient Lighting

	2020	2019
<b>Participation and Savings</b>		
Participants (lightbulbs)	1,148,061	1,336,440
Energy Savings (kWh)	13,942,202	16,245,551
Demand Reduction (MW)	n/a	n/a
<b>Program Costs by Funding Source</b>		
Idaho Energy Efficiency Rider	\$1,603,129	\$2,026,977
Oregon Energy Efficiency Rider	\$62,218	\$99,285
Idaho Power Funds	\$1,812	\$0
Total Program Costs—All Sources	\$1,667,159	\$2,126,262
<b>Program Levelized Costs</b>		
Utility Levelized Cost (\$/kWh)	\$0.012	\$0.011
Total Resource Levelized Cost (\$/kWh)	\$0.022	\$0.014
<b>Benefit/Cost Ratios</b>		
Utility Benefit/Cost Ratio	4.56	4.04
Total Resource Benefit/Cost Ratio	4.20	5.17

### Description

Idaho Power and other regional utilities participate in the BPA-sponsored Simple Steps, Smart Savings™ program, managed by a third-party contractor. Idaho Power promotes Simple Steps, Smart Savings™ offerings to customers in two areas: this Energy Efficient Lighting program and the appliance promotion program (see the Simple Steps, Smart Savings™ section of this report).

Initiated in 2002, the Energy Efficient Lighting program follows a markdown model that provides incentives directly to manufacturers or retailers, with discounted prices passed on to the customer at the point of purchase. The benefits of this model are low administration costs, better availability of products to the customer, and the ability to provide an incentive for specific products. The program goal is to help Idaho Power's residential customers afford more efficient lighting technology.

ENERGY STAR® lightbulbs are a more efficient alternative to standard incandescent and halogen incandescent lightbulbs. Lightbulbs come in a variety of wattages, colors, and styles, including lightbulbs for three-way lights and dimmable fixtures. ENERGY STAR® lightbulbs use 70 to 90% less energy and last 10 to 25 times longer than traditional incandescent lightbulbs.

Idaho Power pays the program contractor a fixed amount for each kWh of energy savings achieved. A portion of the funding Idaho Power provides is used to buy down the price of the product, and a portion is applied to program administration, marketing, and retailer promotions. Promotions include special product placement, additional discounts, and other retail merchandising tactics designed to increase sales.

In addition to managing the program's promotions, the program contractor is responsible for contracting with retailers and manufacturers, providing marketing materials at the point of purchase, and supporting and training retailers.

## Program Activities

In 2020, LED lightbulbs comprised 93% of the program's sales for the year, a slight decrease from the 94% of lightbulb sales in 2019. LED fixtures comprised approximately 7% of overall program sales.

In 2020, through the BPA Simple Steps, Smart Savings™ program, Idaho Power worked with 13 participating retailers, representing 99 individual store locations in its service area. Of those participating retailers, 54% were large retailers and 46% were smaller grocery, drug, dollar and hardware stores. Many rural sales came from these smaller retailers that serve hard-to-reach customers. It is important to include a variety of store types across the Idaho Power service area to ensure all customers have access to the Simple Steps qualified products.

In 2019, BPA announced they would no longer sponsor the Simple Steps promotion after September 30, 2020. The decision to end the program was based on the lighting market transformation to high-efficiency lightbulbs. Idaho Power continued participation in the Simple Steps program until September 30.

## Marketing Activities

In 2020, the program contractor promoted discounts with special product placement and signs. Due to COVID-19 restrictions and to ensure the safety of field staff and customers, the program contractor did not perform any lighting events in 2020. Monthly visits to check stock, point-of-purchase signs, and displays were suspended from March 26 to September 1, when field staff returned to stores to remove point-of-purchase information and to remind store staff and management that the program was ending.

In the first few months of 2020, at events where Idaho Power sponsored a booth and distributed LED lightbulbs, customers were informed about the importance of using energy-efficient lighting, the quality of LED lightbulbs, and the special pricing available for the qualified products.

The company continued to host an Energy Efficient Lighting program website and made available a *Change a Light* program brochure. The brochure is distributed at community events to help discuss energy-efficient lighting with customers and to help them select the right lightbulb for their needs. Several social media posts throughout the year also focused on energy-efficient lighting. Idaho Power recommended using ENERGY STAR® LED lightbulbs in its spring *Energy Efficiency Guide*; the January and July issues of *Connections*; and the March, September, and November *Home Energy Reports*.

The Simple Steps, Smart Savings™ program was removed from the Idaho Power website on September 30, 2020.

## Cost-Effectiveness

In 2019, the Energy Efficient Lighting program provided 37% of all energy savings derived from residential energy efficiency customer programs and almost 8% of Idaho Power's direct program savings. Between 2019 and 2020, bulb sales and savings declined nearly 14% largely due to the sunsetting of the Simple Steps promotion by BPA on September 30, 2020.

In November 2018, the RTF updated and revisited the assumptions for LEDs to account for market changes due to the federal standards compliance. Because LEDs are naturally becoming a larger share of the market, the RTF updated the current practice market baseline for lightbulbs. Due to the timing of the RTF's update, BPA and the contractor implemented these savings in 2020 in the Simple Steps, Smart Savings™ promotion. The RTF LED workbook version 7.1 was the source of most lighting savings assumptions throughout Idaho Power's residential program offerings.

The annual savings for the most popular bulb type, the general-purpose lightbulb in the 250–1049 lumen range, decreased from 12 kWh to about 9 kWh. This bulb type made up almost 49% of the total bulbs sold in the program and approximately 37% of the total savings. Due to the decrease of per-unit savings and the sunsetting of the program, the total savings for this bulb type decreased by just over 2.9 million kWh between 2019 and 2020.

The second most popular bulb type is the reflector lightbulb in the 250–1049 lumen range, which is commonly used in recessed canned light fixtures. The RTF increased the per-bulb savings for this bulb type from 8 kWh to 11 kWh. These reflector bulbs made up almost 17% of the total lightbulbs sold in the program and nearly 16% of the total savings. Between 2019 and 2020, the 250–1049 lumen reflector lightbulb sales remained relatively steady. With the increase in deemed savings, the total savings for this bulb type increased approximately 437,000 kWh between 2019 and 2020.

The RTF reviewed and approved new savings for LEDs in September 2019 and again in September 2020. Idaho Power is monitoring how utilities in the region plan to incorporate the latest RTF numbers.

The UCT and TRC ratios for the program are 4.56 and 4.20 respectively.

For detailed cost-effectiveness assumptions, metrics, and sources, see *Supplement 1: Cost-Effectiveness*.

## **2021 Program and Marketing Strategies**

Idaho Power is researching options for a new lighting buydown program similar to the Simple Steps program. The redesigned program would offer incentives at grocery, dollar, and mass merchant stores because studies have found a higher percentage of inefficient lighting products are currently sold through these retail chains. Additionally, these types of stores are typically in more rural areas.

A redesigned program would allow additional Idaho Power customers to participate in a cost-effective, energy efficiency program.

## Energy House Calls

	2020	2019
<b>Participation and Savings</b>		
Participants (homes)	51	248
Energy Savings (kWh)	56,944	309,154
Demand Reduction (MW)	n/a	n/a
<b>Program Costs by Funding Source</b>		
Idaho Energy Efficiency Rider	\$40,492	\$143,570
Oregon Energy Efficiency Rider	\$5,422	\$18,324
Idaho Power Funds	\$438	\$0
Total Program Costs—All Sources	\$46,352	\$161,894
<b>Program Levelized Costs</b>		
Utility Levelized Cost (\$/kWh)	\$0.075	\$0.039
Total Resource Levelized Cost (\$/kWh)	\$0.075	\$0.039
<b>Benefit/Cost Ratios*</b>		
Utility Benefit/Cost Ratio	0.63	0.96
Total Resource Benefit/Cost Ratio	0.77	1.30

\*2019 cost-effectiveness ratios include evaluation expenses. If evaluation expenses were removed from the program's cost-effectiveness, the UCT and TRCs would be 1.11 and 1.49, respectively.

### Description

Initiated in 2002, the Energy House Calls program gives homeowners of electrically heated manufactured homes an opportunity to reduce electricity use by improving the home's efficiency. Specifically, this program provides free duct sealing and additional efficiency measures to Idaho Power customers living in Idaho or Oregon who use an electric furnace or heat pump. Participation is limited to one service call per residence for the lifetime of the program.

Services and products offered through the Energy House Calls program include duct testing and sealing according to Performance Tested Comfort System (PTCS) standards set and maintained by the BPA; installing up to eight LED lightbulbs; testing the temperature set on the water heater; installing water heater pipe covers when applicable; installing up to two low-flow showerheads, one bathroom faucet aerator, and one kitchen faucet aerator; and leaving two replacement furnace filters with installation instructions and energy efficiency educational materials appropriate for manufactured home occupants.

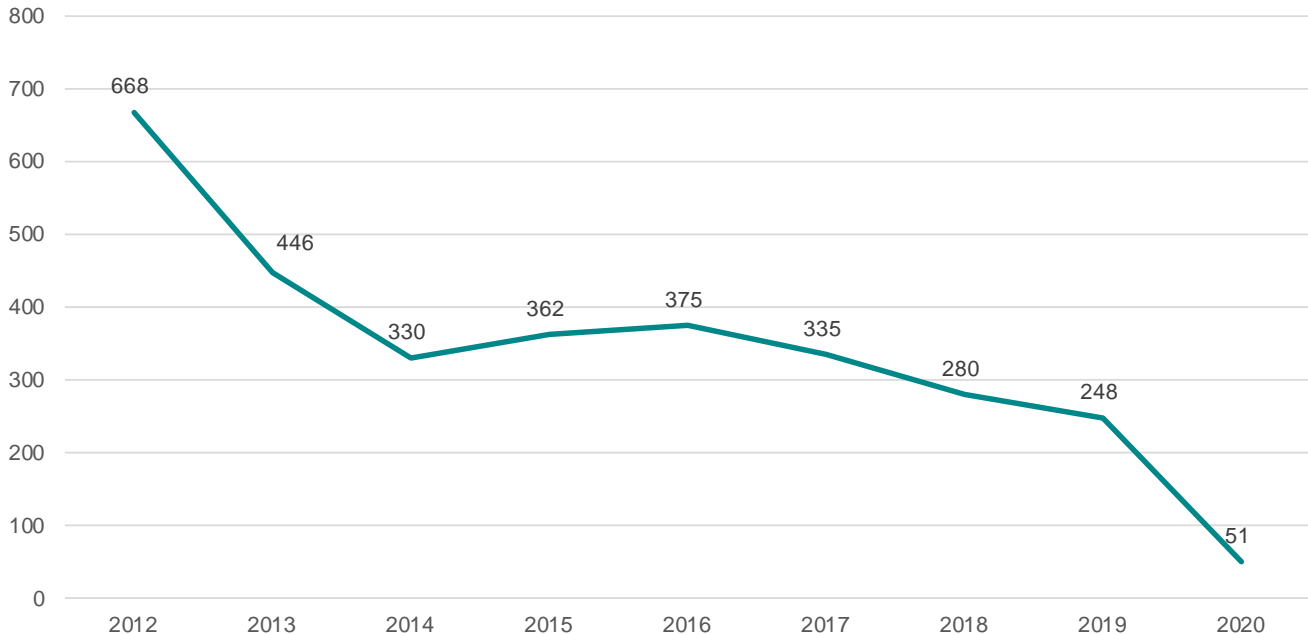
Idaho Power provides contractor contact information on its website and marketing materials.

The customer schedules an appointment directly with one of the certified contractors in their region. The contractor verifies the customer's initial eligibility by testing the home to determine if it qualifies for duct sealing. Additionally, contractors have been instructed to install LED lightbulbs only in high-use areas of the home, to replace only incandescent lightbulbs, and to install bathroom aerators and showerheads only if the upgrade can be performed without causing damage to a customer's existing fixtures.

The actual energy savings and benefits realized by each customer depend on the measures installed and the repairs and/or adjustments made. Although participation in the program is free, a typical cost for a similar service call would be \$400 to \$600, depending on the complexity of the repair and the specific measures installed.

## Program Activities

In response to COVID-19 restrictions and to ensure the safety of customers and contractors, no Energy House Calls visits were completed from March 16 through the end of 2020. Prior to March, 51 homes received products and/or services through this program, resulting in 56,944 kWh savings (Figure 12). In 2019, during the same period, 56 customers received products and or/services.



**Figure 12. Participation in the Energy House Calls program, 2012–2020**

Of the total participating homes, 57% were located in the Canyon–West Region, 18% were located in the Capital Region, and 25% were located in the South–East Region.

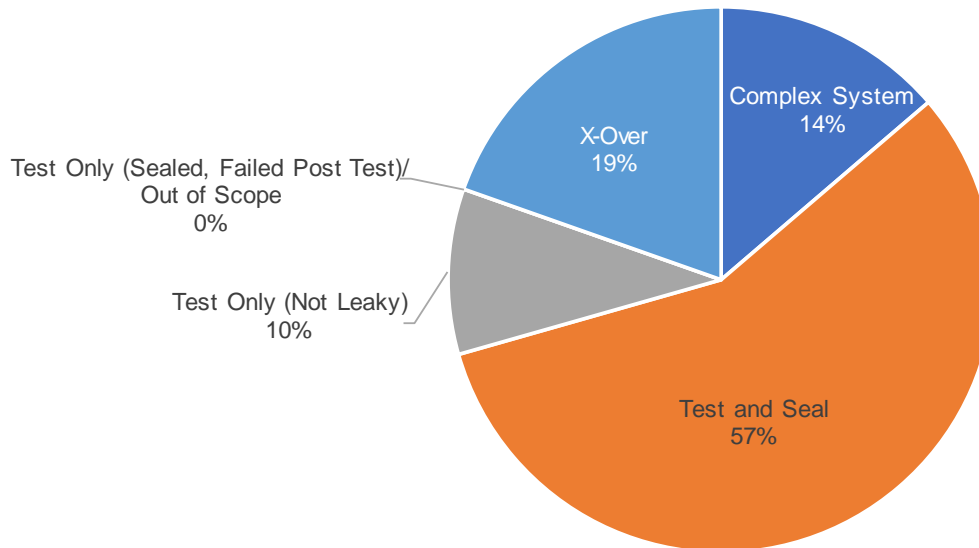
Findings from the impact evaluation performed in 2019 found that Idaho Power had been using heating zones based on cities rather than zip codes to determine PTCS duct-sealing savings. For 2020, Idaho Power applied the duct-sealing savings using the heating zones associated with the zip codes of the participants. It was also discovered that Idaho Power was using a per-faucet savings value for aerators rather than a household value. Idaho Power had already transitioned to the RTF-deemed savings in 2019 prior to receiving the evaluation, so the household value versus the per faucet aerator value is no longer an issue.

### **Duct-Sealing**

Each year, a number of customers who apply for the Energy House Calls program cannot be served because their ducts do not require duct-sealing or cannot be sealed, for various reasons. These jobs are billed as a test-only job. On some homes, it is too difficult to seal the ducts, or the initial duct blaster test identifies the depressurization to be less than 150 cubic feet (ft) per minute (cfm), and duct-sealing is not needed. Additionally, if after sealing the duct work the contractor is unable to reduce leakage by 50%, the contractor will bill the job as a test-only job. Prior to 2015, these test-only jobs were not reported in the overall number of jobs completed for that year because they included no kWh savings. Because Idaho Power now offers direct-install measures in addition to the duct-sealing component, all homes are reported. While some homes may not have been duct-sealed, all would have had some of the direct-install measures included, which would allow Idaho Power to report kWh savings for those homes. Of the 51 homes that participated in 2020, five homes were serviced as test only.



If a home had a blower door and duct blaster test completed, and the contractor determined that only duct-sealing is necessary, it is billed as a test and seal. For a multi-section home with an x-over duct system (one that transfers heated or cooled air from one side to the other) that needs replaced in addition to the duct-sealing, it is charged as an x-over. When a home requires the existing belly-return system to be decommissioned and have a new return installed along with the duct sealing, it is billed as a complex system. A complex system that also requires the installation of a new x-over and duct sealing is billed as a complex system and x-over job.



**Figure 13. Energy House Calls participation by job type**

### ***Direct-Install Measures***

In 2020, contractors installed 200 LED lightbulbs, 11 showerheads, six bathroom aerators, and nine kitchen aerators. Contractors noted that they've seen a decrease in direct-install measures, as customers have commented they have already installed the provided products after receiving free ESKs from Idaho Power. Of the 51 homes that participated in the program in 2020, 49% had received an ESK at some point in the past.

### **Marketing Activities**

In February, Idaho Power sent a postcard to residents who lived in electrically heated manufactured homes that had not yet participated in the program. Written in English and Spanish, 9,010 postcards were delivered in February. In April, the company sent a bill insert to 309,763 residential customers in Idaho and Oregon. The bill insert was shared with the Rebate Advantage program. Customers who requested an Energy House Call visit after March 16, 2020, were added to a wait list and will be contacted to schedule a visit when COVID-19 restrictions are lifted.

To help alleviate any potential customer dissatisfaction, the company cancelled these scheduled program-related outreach efforts: the June Facebook ad and email, the July postcard, and the December bill insert. The December bill insert was replaced with one that provided DIY winter home energy efficiency tips applicable to all types of home or apartment owners or renters. Additionally, Idaho Power added an alert to the Energy House Calls webpage to let customers know of the suspension of in-home program work and the delay for scheduling home visits.

## Cost-Effectiveness

In 2020, Idaho Power used the same RTF savings for duct-sealing and low-flow faucet aerators in manufactured homes as were used in 2019. Savings and a cost-effectiveness analysis for the other direct-install measures, low-flow showerheads and LED lightbulbs, were completed using updated deemed savings from the RTF.

The UCT and TRC ratios for the program are 0.63 and 0.77, respectively. The program's cost-effectiveness was impacted by the suspension of in-home visits due to COVID-19. The company will continue to monitor this program and will explore opportunities to further improve the program's cost-effectiveness in 2021.

For more detailed information about the cost effectiveness savings and assumptions, see *Supplement 1: Cost-Effectiveness*.

## 2021 Program and Marketing Strategies

Once COVID-19 safety protocols allow, Idaho Power will continue to provide free duct sealing and selected direct-install efficiency measures for all-electric manufactured/mobile homes in its service area as long as it remains cost-effective to do so. As always, the company will continue to explore additional cost-effective measures to add to the program.

Idaho Power will include program promotional materials in its bills, send direct-mail postcards and emails, and use social media and other proven marketing strategies to encourage customer participation. Contractors and energy advisors will also distribute program literature at appropriate events and presentations. Idaho Power will continue to provide Energy House Calls program postcards to CAP agencies for distribution to customers who need assistance but do not qualify to receive weatherization assistance through these agencies.

## Heating & Cooling Efficiency Program

	2020	2019
<b>Participation and Savings</b>		
Participants (projects)	1,019	681
Energy Savings (kWh)	1,839,068	1,412,343
Demand Reduction (MW)	n/a	n/a
<b>Program Costs by Funding Source</b>		
Idaho Energy Efficiency Rider	\$578,893	\$478,560
Oregon Energy Efficiency Rider	\$23,978	\$20,619
Idaho Power Funds	\$3,689	\$0
Total Program Costs—All Sources	\$606,559	\$499,179
<b>Program Levelized Costs</b>		
Utility Levelized Cost (\$/kWh)	\$0.033	\$0.028
Total Resource Levelized Cost (\$/kWh)	\$0.103	\$0.084
<b>Benefit/Cost Ratios</b>		
Utility Benefit/Cost Ratio	1.66	1.56
Total Resource Benefit/Cost Ratio	0.81	0.77

### Description

Initiated in 2007, the objective of the Heating & Cooling Efficiency (H&CE) Program is to provide customers with energy-efficient options for space heating and cooling and water heating. The program provides incentives to residential customers, builders, and installation contractors in Idaho Power's service area for the purchase and proper installation of qualified heating and cooling equipment and services.

### Measures, Conditions, and Incentives/Stipends for Existing Homes

- Ducted air-source heat pump:
  - The customer incentive for replacing an existing ducted air source heat pump with a new ducted air source heat pump is \$250 for a minimum efficiency 8.5 heating seasonal performance factor (HSPF). A \$50 stipend is paid to the participating contractor.
  - The customer incentive for replacing an existing oil or propane heating system with a new ducted air source heat pump is \$400 for a minimum efficiency 8.5 HSPF. A \$50 stipend is paid to the participating contractor. Participating homes must be located in areas where natural gas is unavailable.
  - The customer incentive for replacing an existing electric forced-air or zonal electric heating system with a new ducted air source heat pump is \$800 for a minimum efficiency 8.5 HSPF. A \$50 stipend is paid to the participating contractor.
- Ducted open-loop water-source heat pump:
  - The customer incentive for replacing an existing ducted air source heat pump with a new ducted open-loop water-source heat pump is \$500 for a minimum efficiency 3.5 coefficient of performance (COP). A \$50 stipend is paid to the participating contractor.
  - The customer incentive for replacing an existing electric forced-air or zonal electric, oil, or propane heating system with a new ducted open-loop water-source heat pump is \$1,000 for a

minimum efficiency 3.5 COP. Participating homes with oil or propane heating systems must be located in areas where natural gas is unavailable. A \$50 stipend is paid to the participating contractor.

- Ductless air source heat pump: The customer incentive for displacing a zonal electric heating system with a new ductless air source heat pump is \$750.
- Duct sealing: The customer incentive for duct-sealing services performed in an existing home with an electric forced-air heating system or a heat pump is \$350.
- Electronically commutated motor (ECM): The customer incentive for replacing a permanent split capacitor (PSC) air handler motor with an ECM in an existing home with oil or propane or natural gas forced-air heat, electric forced-air heat, or a heat pump is \$50. A \$150 incentive is paid to the licensed contractor.
- Evaporative cooler: The customer incentive for installing an evaporative cooler is \$150.
- Heat pump water heater (HPWH): The customer incentive for installing a HPWH is \$300.
- Smart thermostat: The customer incentive for a smart thermostat installed in an existing home with an electric forced-air furnace or a heat pump is \$75.
- Whole house fan: The customer incentive for a whole-house fan (WHF) installed in an existing home with central A/C, zonal cooling, or a heat pump is \$200.

### ***Measures, Conditions, and Incentives/Stipends for New Homes***

- Ducted air-source heat pump: The incentive for homeowners, property owners, or builders of new construction installing a ducted air source heat pump in a new home is \$400 for a minimum efficiency 8.5 HSPF. A \$50 stipend is paid to the participating contractor. Participating homes must be located in areas where natural gas is unavailable.
- Ducted open-loop water-source heat pump: The incentive for homeowners, property owners, or builders of new construction installing a ducted open-loop water-source heat pump in a new home is \$1,000 for a minimum efficiency 3.5 COP. A \$50 stipend is paid to the participating contractor. Participating homes must be located in areas where natural gas is unavailable.

Idaho Power requires licensed contractors to perform the installation services related to all of these measures, except evaporative coolers, HPWH, and smart thermostats. To qualify for the heat pump and duct-sealing incentive, an authorized participating contractor must perform the work. To be considered a participating contracting company, an employee from the contracting company must first complete Idaho Power's required training regarding program guidelines and technical information on HVAC equipment.

Honeywell, Inc., a third-party contractor, reviews and submits incentive applications for payment using a program database portal developed by Idaho Power. Honeywell also provides technical and program support to customers and contractors and performs on-site and off-site verifications.

### **Program Activities**

In 2020, Idaho Power conducted research and activities to improve customer participation and satisfaction in the H&CE Program. An exercise, described as journey mapping, was completed by a dedicated team from multiple departments who met periodically for three months to challenge, discuss, and modify elements of the program in detail. The purpose of the exercise was to identify difficulties customers might experience when participating in the program. The primary elements identified for revision included website content and application forms. Idaho Power updated its website in 2020 and expects to complete revising the application forms in 2021.

Idaho Power relies, in part, on the RTF to determine the energy savings values it claims for the smart thermostat measure. However, when the RTF announced it would no longer support their savings calculations for the smart thermostat measure, Idaho Power and other stakeholders launched a regional Smart Thermostat Research Study to provide regional smart thermostat performance data to the RTF. The study began in November 2019 and will extend into 2021. Because of the regional study, the RTF extended the period it would support the savings estimates to December 31, 2021.

Idaho Power continued work to improve penetration in the ductless heat pump (DHP) market for homes heated with electric zonal systems. For example, Idaho Power and NEEA provided product and application training to HVAC contractors across the company’s service area. The company offered six online training sessions in October and November 2020. Each was met with appreciation by the attendees.

The 2020 H&CE Program paid incentives are listed in Table 11.

**Table 11. Quantity of H&CE Program incentives in 2020**

Incentive Measure	Project Quantity
Ducted Air-Source Heat Pump .....	161
Open Loop Water-Source Heat Pump .....	6
Ductless Heat Pump .....	244
Evaporative Cooler.....	9
Whole-House Fan .....	129
Electronically Commutated Motor .....	51
Duct Sealing.....	1
Smart Thermostat .....	393
Heat Pump Water Heater.....	25

Honeywell performed random off-site verifications on 5% of the completed installations. This year, the verifications were performed via phone due to COVID-19 restrictions. These verifications confirmed the information submitted on the paperwork matched what was installed at customers’ sites. Overall, the verifications results were favorable.

Supporting, developing, and expanding Idaho Power’s authorized participating contractor network remained a key growth strategy for the program. In 2020, company representatives met with many prospective contractors to support this approach. As a result, Idaho Power added 13 new contractors to the program in 2020.

## Marketing Activities

Idaho Power used multiple marketing methods for its H&CE Program in 2020, focusing efforts toward the hottest and coldest times of the year.

Idaho Power sent two program-related postcards to a targeted customer group that uses electric heat: 8,188 customers in February and 8,132 customers in September. The company mailed a bill insert to 321,081 residential customers in April and 365,038 residential customers in September.

In February, the company emailed information about the H&CE Program to approximately 197,000 residential customers. Over the next three days, the program web page received 5,543 unique page views, which is a large increase compared to the 376 total page views during the three days prior to the email.

In February and September, Idaho Power used an ad agency to send digital display ads to customers based on their internet browsing preferences. Using Google Analytics, the ad agency determined the ads resulted in 2,894,645 impressions and 8,508 clicks to the H&CE Program web page in February and 3,137,679 impressions and 10,327 web clicks in September. In addition to digital display ads, the company used remarketing ads in September targeting customers who had previously visited the H&CE Program web page. The ads resulted in 3,362 impressions with 50 clicks to the web page. A September Facebook ad resulted in 215,758 impressions and 1,766 click throughs to the H&CE Program web page.

Idaho Power used several social media posts throughout 2020 focused on tips related to home heating and cooling. DHPs were prominently featured in the company's overall energy efficiency campaign that ran in a variety of mass-media locations. Additionally, in February, a link from the company's website homepage directed customers to its smart thermostat web page and in September a link directed customers to the H&CE Program web page.

The company held a smart thermostat giveaway at the January *Idaho Remodeling & Design Show* and promoted the program on the trade show booth panels. Program information was also included in energy efficiency collateral mailed in the new customer Welcome Kits.

The company used several PR tactics to promote the program, including interviews touting smart thermostats on KTVB and KMVT in February. Smart thermostats were also promoted in a *News Brief* in January. A smart thermostat article was featured in the February edition of *Connections*. The summer edition of the *Energy Efficiency Guide* distributed through local newspapers featured articles on smart thermostats and HPWHs.

Additionally, the program specialist continued to distribute flyers, called tech sheets, to interested customers and contractors. The eight different flyers are especially beneficial as sales tools for contractors, for use at trade shows, and as mailers to customers without internet access who seek program and individual cash incentive information.

### **Cost-Effectiveness**

The H&CE Program has a utility cost test of 1.66 and total resource cost test of 0.81. The increase in UCT and TRC over 2019 is largely due to the increase in participation in the program.

The savings assumptions for most measures including air source heat pumps, open-loop water-source heat pump, DHPs, and duct sealing remain unchanged from 2019. All measures within the program pass the UCT except for heat pump upgrades and smart thermostats. However, the measures would pass the UCT if administration costs were not included in the measure's cost-effectiveness. A handful of measures, such as DHPs and open-loop water-source heat pumps are not cost-effective from a TRC perspective. These measures and the program itself have cost-effectiveness exceptions with the OPUC under UM 1710.

In late 2019, the RTF updated the assumptions around heat pumps and recalibrated their model based on empirical data from evaluations and research throughout the northwest which resulted in a reduction of per unit savings. These savings will be applied to the program in 2021. At the same meeting, the RTF voted to deactivate the savings for the commissioning, controls, and sizing (CCS) of the heat pumps. The CCS savings are additive to the air-source heat pump conversion and upgrade measure and assumes the proper installation of the heat pumps based on BPA's PTCS standards. While the analysis suggests that there could be meaningful savings for utilities especially east of the Cascades, some utilities did not follow BPA's PTCS standards. In discussing the CCS savings with the program engineer, Idaho Power does follow the PTCS standards. Idaho Power plans to continue using the CCS savings in 2021 and will use the upcoming program evaluation as an opportunity to do further research on this measure.



In 2020, Idaho Power updated the savings for evaporative coolers. Previously, Idaho Power cited the evaporative coolers savings from past potential studies. After further research, it was determined that the savings were modeled on the replacement of an existing evaporative cooler. However, the program engineer believes the measure encourages the displacement of whole house existing mechanical cooling. Mechanical cooling is shut off during variable outdoor conditions where an evaporative cooler can cool the room. After researching available technical reference manuals (TRM), Idaho Power found the New Mexico TRM had a reasonable deemed savings value based on a variety of representative cities and their associated cooling degree days. As part of the 2021 program evaluation, Idaho Power plans to have the evaluators check the reasonableness of these values and provide an updated savings value based on Idaho Power climate zones.

In early 2021, RTF reviewed and updated the savings assumptions for HPWHs. While it is Idaho Power's position to freeze savings assumption during budgeting, the newest HPWH workbook includes savings for the Tier 4 HPWH. The Tier 3 models are slowly leaving the market and are being replaced with Tier 4 models. To begin claiming savings for these HPWHs, Idaho Power will need to adopt the newest workbook for 2021.

For detailed information about the cost-effectiveness savings, sources, calculations, and assumptions, see *Supplement 1: Cost-Effectiveness*.

## **2021 Program and Marketing Strategies**

Idaho Power will contract with a third party to conduct process and impact program evaluations in 2021.

Idaho Power will continue to provide program training to existing and prospective contractors to assist them in meeting program requirements and furthering their product knowledge. Training sessions remain an important part of the program because they create opportunities to invite additional contractors into the program. The sessions also provide refresher training for contractors already participating in the program and help them increase their customers' participation while improving the contractors' work quality.

Developing the existing network of participating contractors remains a key strategy for the program. The performance of the program is substantially dependent on the contractors' abilities to promote and leverage the measures offered. Idaho Power's primary goal in 2021 is to develop contractors currently in the program while adding new contractors. To meet this objective, the program specialist will frequently interact with contractors in 2021 to discuss the program.

The 2021 marketing strategy will include bill inserts, direct-mail, social media, digital and search advertising, and email marketing to promote individual measures and the program as a whole.

## Home Energy Audit

	2020	2019
<b>Participation and Savings</b>		
Participants (homes)	97	421
Energy Savings (kWh)	31,938	179,754
Demand Reduction (MW)	n/a	n/a
<b>Program Costs by Funding Source</b>		
Idaho Energy Efficiency Rider	\$128,547	\$230,786
Oregon Energy Efficiency Rider	\$0	\$0
Idaho Power Funds	\$1,999	\$0
Total Program Costs—All Sources	\$130,546	\$230,786
<b>Program Levelized Costs</b>		
Utility Levelized Cost (\$/kWh)	\$0.448	\$0.122
Total Resource Levelized Cost (\$/kWh)	\$0.449	\$0.150
<b>Benefit/Cost Ratios</b>		
Utility Benefit/Cost Ratio	n/a	n/a
Total Resource Benefit/Cost Ratio	n/a	n/a

### Description

Under the Home Energy Audit program, a certified, third-party home performance specialist conducts an in-home energy audit to identify areas of concern and provide specific recommendations to improve the efficiency, comfort, and health of the home. The audit includes a visual inspection of the crawlspace and attic, a health and safety inspection, and a blower door test to identify and locate air leaks. The home performance specialist collects information on types and quantities of appliances and lighting in each home, then determines which available measures are appropriate for the home. Homeowners and/or landlords approve all direct-install measures prior to installation, which could include the following:

- Up to 20 LED lightbulbs
- One high-efficiency showerhead
- Pipe insulation from the water heater to the home wall (approximately 3 ft)
- Tier 2 Advanced Power Strip

The home performance specialist collects energy-use data and records the quantity of measures installed during the audit using specialized software. After the audit, the auditor writes up the findings and recommendations, and the software creates a report for the customer.

To qualify for the Home Energy Audit program, a participant must live in Idaho and be the Idaho Power customer of record for the home. Renters must have prior written permission from the landlord. Single family site-built homes, duplexes, triplexes, and fourplexes qualify, though multi-family homes must have discrete heating units and meters for each unit. Manufactured homes, new construction, or buildings with more than four units do not qualify.

Interested customers fill out an application online. If they do not have access to a computer, or prefer talking directly to a person, Idaho Power accepts applications over the phone. Participants are assigned a home performance specialist based on geographical location to save travel time and expense.

Participating customers pay \$99 (all-electric homes) or \$149 (other homes: gas, propane, or other fuel sources) for the audit and installation of measures, with the remaining cost covered by the Home Energy Audit program. The difference in cost covers the additional testing necessary for homes that are not all-electric. These types of energy audits normally cost \$300 or more, not including the select energy-saving measures, materials, and labor. The retail cost of the materials available to install in each home is approximately \$145.

Each year, the quality assurance (QA) goal for the program is to inspect 5% of all audits.

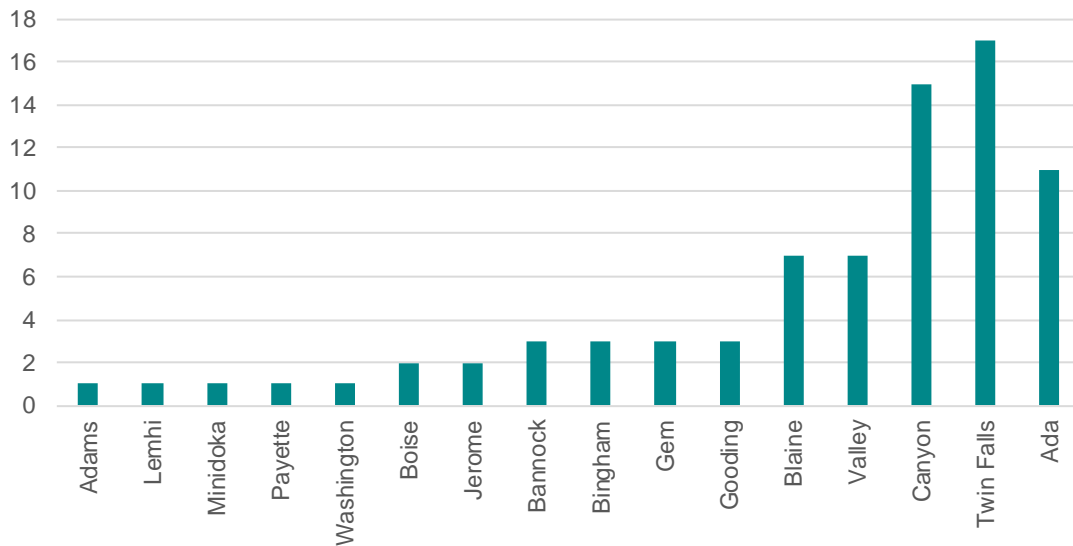
**Program Activities**

Three home performance specialist companies served the program in 2020 and completed 97 energy audits. House size ranged from 528 square ft (ft<sup>2</sup>) to 7,400 ft<sup>2</sup>, with the average size of 2,314 ft<sup>2</sup>. Houses were built from 1908 to 2019, with the average age of 40 years old.

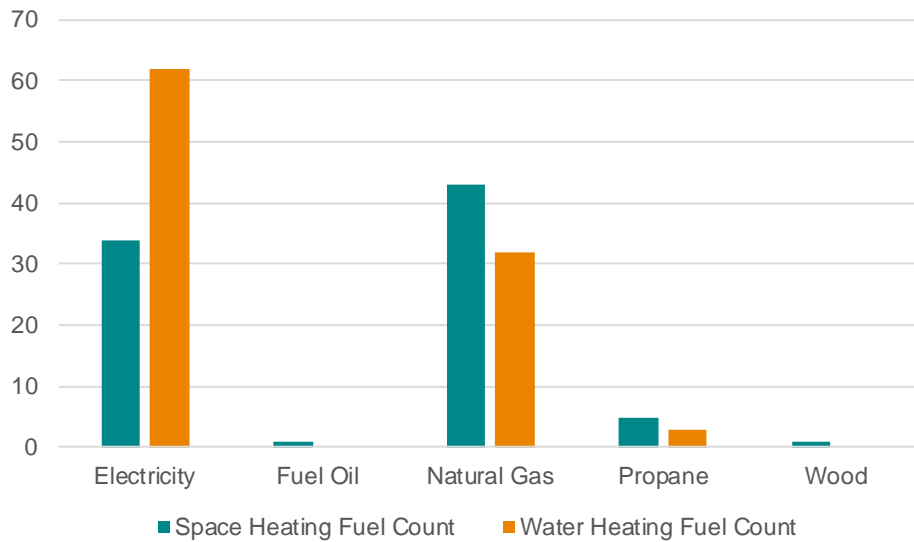
Due to COVID-19 restrictions, Idaho Power suspended audits in mid-March 2020 through the end of the year. This greatly impacted the number of audits completed and associated savings. The company continued to accept enrollments and contacted customers to explain the delay.

Figure 14 depicts the program’s reach across Idaho Power’s service area, and Figure 15 depicts the space and water heating fuel types. Figure 16 indicates the total quantity of direct-install measures.

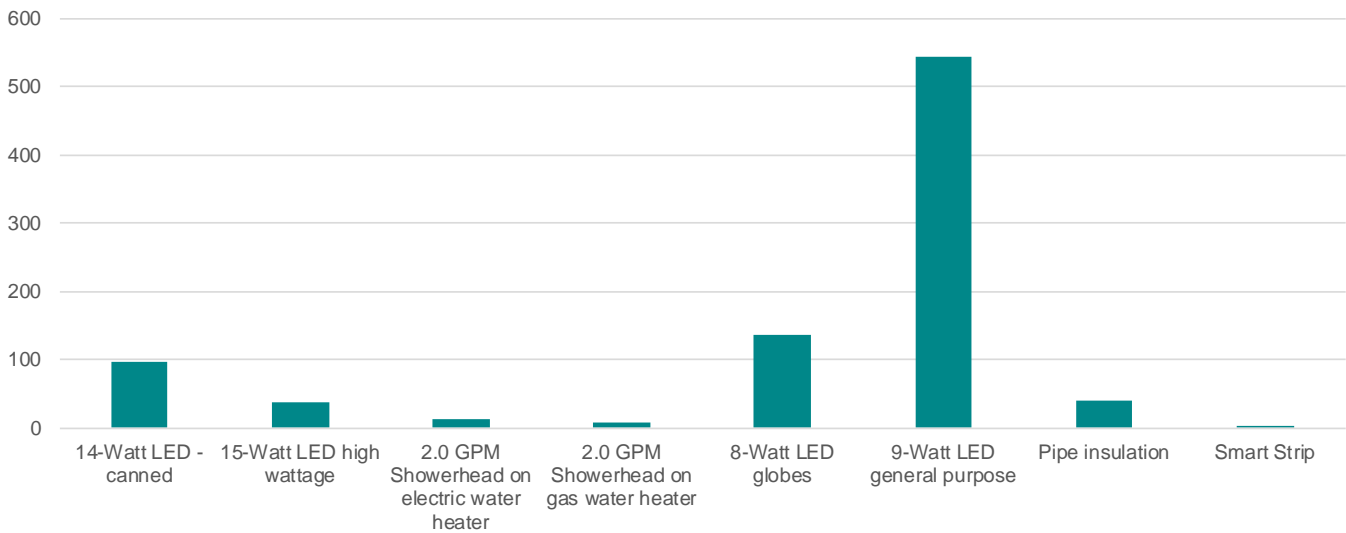
Because in-home activity was suspended most of the year, QAs were not performed.



**Figure 14. Home Energy Audit summary of participating homes, by county**



**Figure 15. Home Energy Audit summary of space and water heating fuel types**



**Figure 16. Number of Home Energy Audit measures installed in participating homes**

**Marketing Activities**

In early 2020, Idaho Power recruited participants using small batches of direct mail letters to ensure customers who signed up were contacted within a short timeframe and to avoid a large backlog of work that could result in a poor customer experience. Due to COVID-19 restrictions, Idaho Power suspended this marketing effort in mid-March.

In November, Idaho Power collaborated with the University of Idaho’s Valley County Extension Office to host a virtual energy efficiency workshop for customers in Valley county. The company sent letters and emails and used a Facebook post to invite residents to attend the evening workshop. Forty residents registered for the workshop, and twenty attended the well-received workshop. This is twice the number that attended last year’s in-person event.

Attendees learned how to check their homes for efficiency, how to make some improvements, what incentives are available through Idaho Power, and how a professional energy assessment could help improve energy efficiency. The company conducted a random drawing to give away four LED

nightlights to attendees. A local energy advisor delivered the nightlights to customer's front porches while social distancing and wearing a mask. Customers expressed appreciation during the event for being able to have the workshop despite COVID-19 restrictions.

Idaho Power sent program-related bill inserts to 310,836 residential customers in March, 308,036 customers in July, 304,066 in September, and 296,947 customers in December. The company included new messaging to let customers know they would be signing up for a waitlist since auditors were unable to conduct in-person visits.

In February and March, targeted digital display ads ran on a variety of websites based on user demographics, search behavior, and other factors. The ads generated 940,774 impressions and a 0.22% click-through rate. In March, a Facebook post about the program was boosted, resulting in 4,785 impressions.

Customers who enrolled in the Home Energy Audit program throughout the year were asked where they heard about the program. Responses included the following: information in the mail, 39.1%; family member or friend, 8.27%; Idaho Power employee, 11.65%; social media, 3.01%; other, 37.97%.

### **Cost-Effectiveness**

One of the goals of the Home Energy Audit program is to increase participants' understanding of how their home uses energy and to encourage their participation in Idaho Power's energy efficiency programs. Because the Home Energy Audit program is primarily an educational and marketing program, the company does not apply the traditional cost-effectiveness tests to the program.

For the items installed directly in the homes, Idaho Power used RTF savings for direct-install lightbulbs, which range from 16 to 46 kWh per year. This was a slight decrease over the 2019 lightbulb savings which ranged from 16 to 52 kWh per year.

In Idaho Power's *Energy Efficiency Potential Study*, it is estimated that pipe wraps save 78 kWh per year. Showerhead savings were updated in 2020 using the RTF version 4.3 workbook. Savings for both showerheads and pipe wrap were counted for homes with electric water heaters.

As recommended in a previous evaluation, non-energy benefits (NEB) have been determined for pipe wrap insulation and showerheads in homes with gas water heat. Idaho Power has calculated the gas and water savings for showerheads installed in gas water heat homes. While Idaho Power does not calculate a cost-effectiveness ratio for the Home Energy Audit program, those values have been included in the sector and portfolio cost-effectiveness. Idaho Power has also converted the 78 kWh of pipe wrap savings to 2.66 therms and those gas savings are included in the sector and portfolio cost-effectiveness.

### **2021 Program and Marketing Strategies**

Once COVID-19 safety protocols allow for audits to resume, Idaho Power will continue recruiting participants through small batches of targeted direct-mailings, social media posts, advertising, and bill inserts. Additional digital advertising may be considered if the program needs to be strategically promoted in specific regions.

## Multifamily Energy Savings Program

	2020	2019
<b>Participation and Savings</b>		
Participants (projects [buildings])	33 [4]	457 [12]
Energy Savings (kWh)	28,041	346,107
Demand Reduction (MW)	n/a	n/a
<b>Program Costs by Funding Source</b>		
Idaho Energy Efficiency Rider	\$83,951	\$115,560
Oregon Energy Efficiency Rider*	\$4,350	\$15,745
Idaho Power Funds	\$1,528	\$0
Total Program Costs—All Sources	\$89,829	\$131,306
<b>Program Levelized Costs</b>		
Utility Levelized Cost (\$/kWh)	\$0.372	\$0.036
Total Resource Levelized Cost (\$/kWh)	\$0.372	\$0.036
<b>Benefit/Cost Ratios</b>		
Utility Benefit/Cost Ratio	0.14	1.15
Total Resource Benefit/Cost Ratio	0.28	2.34

\* 2018 Idaho Rider charges of \$13,264 were reversed and charged to the Oregon Rider in March 2019.

### Description

The Multifamily Energy Savings Program provides for the direct installation of energy-saving products in multi-family dwellings with electrically heated water in Idaho and Oregon. These energy-saving products are installed by an insured contractor hired by Idaho Power at no cost to the property owner, manager, or tenant. Idaho Power defines a multi-family dwelling as a building consisting of five or more rental units. The products installed are: ENERGY STAR® LED lightbulbs, high-efficiency TSV showerheads, kitchen and bathroom faucet aerators, and water heater pipe insulation.

To ensure energy savings and eligibility, Idaho Power pre-approves each building and the contractor who will install the energy efficiency measures. Upon approval, the no-cost, direct installation is scheduled, and a tailored door hanger is placed on tenants' apartments to explain the schedule and process of the installation.

### Program Activities

Due to COVID-19 restrictions, Idaho Power suspended in-home activity on March 16, 2020, and it remained suspended through the end of the year. This resulted in a substantial decrease both in the number of units completed and energy savings.

Prior to the suspension, the company completed four projects (33 apartments) in Idaho. No projects were completed in Oregon.

The company is still accepting applications and has identified apartment complex owners/managers who are interested in participating in the program. Once COVID-19 restrictions are lifted owners/managers will be contacted and installs will be scheduled.

### Marketing Activities

Idaho Power continued to run three alternating, clickable ads on its Landlord/Property Manager Requests web page that linked users to the Multifamily Energy Savings Program web page.



A marketing video placed at the top of the Multifamily Energy Savings Program web page also continued to run in 2020. The video explains the eligibility requirements, the no-cost direct-install measures available to landlords/tenants, the installation process, and the potential for residents to save on their monthly bills and to be more comfortable in their homes. At the end of the video, company contact information is provided.

In January, Idaho Power placed a print ad promoting the program in the *Idaho Business Review's* special *Multifamily Residential* section. The ad featured updated imagery to match the refreshed look of the company's energy efficiency marketing collateral.

Idaho Power communicated with participants before and after installation. In addition to the pre-installation door hanger, the contractor left materials to explain the new energy efficiency measures and to provide contact information should the tenant have any questions. Lastly, customers were asked to participate in a survey, rating their satisfaction for installed measures and overall product and program satisfaction. The company uses these responses to help improve future marketing activities.

### **Cost-Effectiveness**

The RTF provides deemed savings for direct-install LED lightbulbs, low-flow showerheads, and faucet aerators. The LED lightbulbs have a deemed savings value of 16.17 to 83.87 kWh per year depending on the type and lumens of the lightbulb and the location of the lightbulb installation. The integrated 1.75 gpm showerheads with TSV were installed in most apartments. These showerheads save 197.80 kWh per year. Faucet aerators installed in a kitchen have a deemed annual savings value of 43.94 kWh while faucet aerators installed in a bathroom save 47.88 kWh per year.

The UCT and TRC ratios for the program are 0.14 and 0.28, respectively. The program's cost-effectiveness was impacted by the suspension of in-home visits due to COVID-19. In an effort to improve the accuracy of the data being collected, Idaho Power has modified the installation worksheets to be used in 2021. The company worked with installers to ensure the collection of the additional information would not be a burden to them when the direct installs resume. The updated installation worksheets will help Idaho Power calculate the lighting savings for each project based on information around the existing lamp and the location of the installation rather than using a deemed savings value from the RTF.

For detailed cost-effectiveness assumptions, metrics, and sources, see *Supplement 1: Cost-Effectiveness*.

### **Customer Satisfaction**

Idaho Power included a satisfaction survey with the leave-behind materials in the 33 apartments. Both an online and mail-in option were offered but no surveys were returned in 2020.

### **2021 Program and Marketing Strategies**

Idaho Power will resume pursuing energy-efficient direct-installation projects in multi-family dwellings throughout its service area when the program activities can be completed in a safe manner for both customers and contractors in consideration of COVID-19 protocols.

Once installations resume, Idaho Power will continue to use informative notifications, pre-installation door hangers, and post-installation informational marketing pieces, as well as survey cards for scheduled projects. The company will also advertise in industry publications to encourage property owner/manager engagement and increase program visibility.

## Oregon Residential Weatherization

	2020	2019
<b>Participation and Savings</b>		
Participants (audits/projects)	0	8
Energy Savings (kWh)	0	2,069
Demand Reduction (MW)	n/a	n/a
<b>Program Costs by Funding Source</b>		
Idaho Energy Efficiency Rider	\$0	\$0
Oregon Energy Efficiency Rider	\$5,313	\$5,982
Idaho Power Funds	\$0	\$0
Total Program Costs—All Sources	\$5,313	\$5,982
<b>Program Levelized Costs</b>		
Utility Levelized Cost (\$/kWh)	n/a	n/a
Total Resource Levelized Cost (\$/kWh)	n/a	n/a
<b>Benefit/Cost Ratios</b>		
Utility Benefit/Cost Ratio	n/a	n/a
Total Resource Benefit/Cost Ratio	n/a	n/a

### Description

Idaho Power offers free energy audits for electrically heated customer homes within the Oregon service area. This is a program required by Oregon Revised Statute (ORS) 469.633 and has been offered under Oregon Tariff Schedule 78 since 1980. Upon request, an energy audit contractor hired by Idaho Power visits the customer's home to perform a basic energy audit and to analyze it for energy efficiency opportunities. An estimate of costs and savings for recommended energy-efficient measures is given to the customer. Customers may choose either a cash incentive or a 6.5%-interest loan for a portion of the costs for weatherization measures.

### Program Activities

Due to COVID-19 restrictions, Idaho Power suspended in-home activity on March 16, 2020, and it remained suspended through the end of 2020, which resulted in a reduction in program participation.

In 2020, two customers returned a card from the program brochure indicating interest in the program. Because the company received these cards after in-home activity had been suspended, these audits were not performed. The energy advisor notified these customers of the suspension and let them know they would receive a call as soon as in-home activity was reinstated.

### Marketing Activities

In October, Idaho Power sent its Oregon residential customers an informational brochure about energy audits and home weatherization financing.

### Cost-Effectiveness

The Oregon Residential Weatherization program is a statutory program described in Oregon Schedule 78, which includes a cost-effectiveness definition of this program. Pages three and four of Schedule 78 identify the measures determined to be cost-effective and the specified measure life cycles for each. This schedule also includes the cost-effective limit (CEL) for measure lives of seven, 15, 25, and 30 years.

**2021 Program and Marketing Strategies**

Once COVID-19 safety protocols allow in-home activity to resume, Idaho Power will market the program to customers with a bill insert/brochure.

## Rebate Advantage

	2020	2019
<b>Participation and Savings</b>		
Participants (participants)	116	109
Energy Savings (kWh)	366,678	353,615
Demand Reduction (MW)	n/a	n/a
<b>Program Costs by Funding Source</b>		
Idaho Energy Efficiency Rider	\$174,670	\$148,220
Oregon Energy Efficiency Rider	\$4,897	\$8,529
Idaho Power Funds	\$855	\$0
Total Program Costs—All Sources	\$180,422	\$156,748
<b>Program Levelized Costs</b>		
Utility Levelized Cost (\$/kWh)	\$0.031	\$0.023
Total Resource Levelized Cost (\$/kWh)	\$0.075	\$0.052
<b>Benefit/Cost Ratios*</b>		
Utility Benefit/Cost Ratio	1.69	1.82
Total Resource Benefit/Cost Ratio	0.98	1.14

\*2020 cost-effectiveness ratios include evaluation expenses. If evaluation expenses were removed from the program's cost-effectiveness, the UCT and TRC would be 1.73 and 0.99, respectively.

### Description

Initiated in 2003, the Rebate Advantage program helps Idaho Power customers in Idaho and Oregon with the initial costs associated with purchasing new, energy-efficient, ENERGY STAR® qualified manufactured homes. This enables the homebuyer to enjoy the long-term benefit of lower electric bills and greater comfort provided by the home. The program also provides an incentive to the sales consultants to encourage more sales of ENERGY STAR® qualified homes and more discussion of energy efficiency with their customers during the sales process.

In addition to offering financial incentives, the Rebate Advantage program educates manufactured home buyers and retailers about the benefits of owning energy-efficient models. The Northwest Energy-Efficient Manufactured Home Program™ (NEEM), a consortium of manufacturers and state energy offices in the Northwest, establishes quality control (QC) and energy efficiency specifications for qualified manufactured homes and tracks their production and on-site performance. NEEM adds the classification Eco-Rated™ for homes that are produced by factories that have demonstrated a strong commitment to minimizing environmental impacts from the construction process.

In 2019, NEEM created the most stringent manufactured home energy standard in the country, the ENERGY STAR® with NEEM 2.0 specification, which was later renamed the ENERGY STAR® with NEEM+ certification. NEEM+ standards are engineered to save approximately 30% more energy than ENERGY STAR® standards. As a result, not only does NEEM+ deliver the highest possible energy savings, it delivers the highest level of overall comfort. These homes are built to specifications tailored to the Northwest climate.

### Program Activities

In 2020, for each home sold, the residential customer incentive for this program was \$1,000 and the sales staff incentive was \$200. Idaho Power paid 116 incentives on new manufactured homes, which accounted for 366,678 annual kWh savings. This included 114 homes sited in Idaho and two sited in

Oregon. Of the 116 homes in the program, 32 were NEEM+, 79 were ENERGY STAR, and five were Eco-Rated.

## Marketing Activities

Idaho Power continued to support manufactured home dealerships by providing them with updated program marketing collateral.

In April and December, Idaho Power promoted the Rebate Advantage program with a bill insert sent to 321,081 and 307,578 customers, respectively. The insert had information about the potential energy and cost savings and referred customers to the program website.

In October, the company garnered 15,056 impressions on social media with a Rebate Advantage program promotion.

## Cost-Effectiveness

In 2020, Idaho Power used the same savings and assumptions source as were used in 2019. In May 2020, the RTF updated savings for new construction manufactured homes. First, RTF removed the savings designation for Eco-Rated™ certified homes. The Eco-Rated certification is a green home program that signifies the production facility the homes are produced in demonstrate a high commitment to managing the environmental impacts during the building process. However, the energy savings associated with these homes are the same as those built to ENERGY STAR standards; therefore, the RTF voted to combine the savings for Eco-Rated and ENERGY STAR manufactured homes. Secondly, the RTF removed the assumptions related to NEBs. The previous assumptions were based on the reduction of supplemental fuel use which they found no evidence of occurring. Finally, when other assumptions around heating system type, lighting, and other appliances were updated, the average annual savings per home declined by 10%. Idaho Power will begin using RTF workbook version 4.1 in 2021.

The UCT and TRC for the program is 1.69 and 0.98 respectively. If the amount incurred for the 2020 evaluation was removed from the program's cost-effectiveness, the UCT would be 1.73 while the TRC would be 0.99.

For detailed information for all measures within the Rebate Advantage program, see *Supplement 1: Cost-Effectiveness*.

## Evaluation

In 2020, Idaho Power contracted with ADM Associates, Inc. to conduct an impact evaluation of 2019 reported savings. The evaluation determined that Idaho Power applied savings correctly and documented project information accurately. The impact evaluation reviewed the program database and conducted a desk review of sampled projects.

The evaluator calculated a realization rate of 100% for the 2019 program year and made no recommendations for future program changes. See the complete impact evaluation report in *Supplement 2: Evaluation*.

## 2021 Program and Marketing Strategies

Idaho Power plans to explore the cost effectiveness of adding an incentive tier for the ENERGY STAR with NEEM+ certification homes to help promote the sales of these higher efficiency homes. In addition, NEEM will be exploring whether to end the Eco-Rated™ homes classification.

Idaho Power will continue to support manufactured home dealers by providing them with program materials. The company will also distribute a bill insert to Idaho and Oregon customers and explore digital advertising to promote the program to potential manufactured home buyers.



## Residential New Construction Pilot Program

	2020	2019
<b>Participation and Savings</b>		
Participants (participants)	248	322
Energy Savings (kWh)	649,522	774,597
Demand Reduction (MW)	n/a	n/a
<b>Program Costs by Funding Source</b>		
Idaho Energy Efficiency Rider	\$471,542	\$534,118
Oregon Energy Efficiency Rider	\$0	\$0
Idaho Power Funds	\$1,962	\$0
Total Program Costs—All Sources	\$473,504	\$534,118
<b>Program Levelized Costs</b>		
Utility Levelized Cost (\$/kWh)	\$0.044	\$0.035
Total Resource Levelized Cost (\$/kWh)	\$0.081	\$0.092
<b>Benefit/Cost Ratios*</b>		
Utility Benefit/Cost Ratio	1.54	1.58
Total Resource Benefit/Cost Ratio	1.20	0.83

\* 2019 cost-effectiveness ratios include evaluation expenses. If evaluation expenses were removed from the program's cost-effectiveness, the UCT and TRC would be 1.66 and 0.85, respectively.

### Description

The Residential New Construction Pilot Program launched in March 2018, replacing the ENERGY STAR® Homes Northwest Program. The Residential New Construction Pilot Program offers builders a cash incentive to build energy-efficient, single-family, all-electric homes that use heat pump technology in Idaho Power's Idaho service area. These homes must meet strict requirements that make them 10%, 15%, or 20% more energy efficient than homes built to standard state energy code.

The RTF and NEEA have created specific modeling requirements and program guidelines to ensure the program provides reliable energy savings for utilities across the northwest. These homes feature high performance HVAC systems, high-efficiency windows, increased insulation values, and tighter building shells to improve comfort and save energy. Idaho Power claims energy savings based on each home's individual modeled savings.

Builders must contract with a Residential Energy Services Network (RESNET)-certified rater to ensure the home design will meet program qualifications. The rater will work with the builder from the design stages through project completion; perform the required energy modeling using REM/Rate modeling software; perform site inspections and tests; and enter, maintain, and submit all required technical documentation in the REM/Rate modeling software and the AXIS database. This data is used to determine the energy savings and the percent above code information needed to certify the home. NEEA maintains the regional AXIS database.

### Program Activities

In the first quarter of 2020, Idaho Power instituted a three-tier incentive structure for the Residential New Construction Pilot Program. Prior to that program update, a flat incentive of \$1,500 was paid to all homes that achieved 20% above code or higher. Homes approved for the program prior to December 31, 2019 were grandfathered under the previous incentive structure.

The new tiered incentives are:

- 10 to 14.99% above code: \$1,200 incentive
- 15 to 19.99% above code: \$1,500 incentive
- 20% or more above code: \$2,000 incentive

Idaho Power updated the application form so customers could easily fill it out and submit it online.

In 2020, the company paid incentives for 248 newly constructed energy-efficient homes in Idaho, and the homes accounted for 649,522 kWh of energy savings.

Idaho Power also reviewed the following recommendations from the 2019 impact evaluation:

- *Review the tracking database regularly to ensure that all parameters have reasonable and accurate values.* Idaho Power reviewed the database regularly before the evaluation and will continue to do so.
- *Clarify on the application form that builders with multiple units may submit only one application.* Idaho Power did not adopt this recommendation in 2020. Although it is not specifically written on the application, the program raters instruct their builders to fill out one application form and then list multiple homes on a separate sheet. Idaho Power is not aware of any situation where a builder has been confused. However, the next time the application is updated, Idaho Power will make this small update.
- *Modify the name of the application form PDF on the program website from “termsConditions.pdf” to something more specific.* Idaho Power adopted this recommendation and updated the PDF name to be more specific: IdahoPowerResNewConstApplication.pdf.
- *Clearly document the sources for the program’s baseline energy standards.* The evaluator made this recommendation because they had a hard time obtaining information on the baseline heating systems (capacities, efficiencies, etc.) from the REM/Rate modeling software or AXIS database. Idaho Power is not able to change this because the software is provided from a third party. Upon speaking with the third-party software provider, the evaluator was able to attain the information they needed for their evaluation.
- *If the pilot becomes a fully-fledged program, add to the program marketing plan document to make it a true program handbook.* Idaho Power will add a complete program marketing plan document to the program handbook.
- *Ensure all hyperlinks on marketing materials work.* Idaho Power adopted this recommendation and checked all hyperlinks to ensure they were actively connected to the Residential New Construction webpage.
- *Track the number of clicks for digital ads.* Idaho Power already performs this recommendation.
- *Add content to program website.* The company regularly updates website content to keep it current and will consider adding success stories.
- *Add a URL to the program brochure that links builders with specific contact information for the raters.* Idaho Power has the RESNET-certified HERS rater contact info on the webpage. The webpage URL is listed on the program brochure.

## Marketing Activities

Idaho Power maintained a strong presence in the building industry by supporting the Idaho Building Contractors Association (IBCA) and several of its local affiliates throughout the company’s service area in 2020. The company participated in the IBCA Winter Board Meeting, but due to COVID-19 restrictions, the company was unable to participate in the IBCA Fall Board Meeting, the Building Contractors Association of Southwestern Idaho (BCASWI) builder’s expo, the Snake River Valley

Building Contractors Association (SRVBCA) builder's expo, and the BCASWI and SRVBCA scholarship golf tournaments as in past years.

Idaho Power supported Parade of Homes events with full-page ads in the *Parade of Homes* magazines of the following BCAs: The Magic Valley Builders Association (MVBA), the BCASWI, the SRVBCA, and the Building Contractors Association of Southeast Idaho (BCASEI). A print ad appeared in the *Idaho Business Review's Residential Contractor's Special Edition* in June as well as the March issue of *Boise Lifestyle* and *Meridian Lifestyle* magazines that highlighted top home builders. A digital app ad and company listing was also included as part of the advertising package with the MVBA.

The company sent a bill insert to 309,554 Idaho customers in May to promote the program. The program brochure was updated to show the new tiered incentive rates.

### **Cost-Effectiveness**

The savings for the 248 energy-modeled homes average 2,619 kWh per home depending on which efficiency upgrades were included to meet the tiered over code program requirement. This was an increase over the average energy-modeled savings of 2,389 kWh per home in 2019.

While savings are custom calculated for each of the 248 modeled homes, the incremental costs over a code-built home are difficult to determine. The RTF's single-family new construction workbook was used as a proxy for the incremental costs and NEBs.

The UCT and TRC ratios for the program are 1.54 and 1.20 respectively.

For more detailed information about the cost-effectiveness savings and assumptions, see *Supplement 1: Cost-Effectiveness*.

### **2021 Program and Marketing Strategies**

Idaho Power plans to continue to promote this program to Idaho builders and new home buyers. These marketing efforts include ads in *Parade of Homes* magazines for the BCASWI, SRVBCA, MVBA, and the BCASEI. A bill insert is planned for spring 2021. The company also plans to continue supporting the general events and activities of the IBCA and its local affiliates. Social media and other advertising will be considered based on past effectiveness.

NEEA made the decision to stop sponsoring the regional utility performance path homes programs but will still maintain the regional AXIS database. Idaho Power will contract with Washington State University's Energy Program for the program file and field QAs beginning sometime in first quarter of 2021.

The 2020 Idaho Legislature adopted a more stringent energy code and, as a result, Idaho Residential Energy code will be moving up from the 2012 IECC with state specific amendments to the 2018 IECC with state-specific amendments in January of 2021.

## Shade Tree Project

	2020	2019
<b>Participation and Savings</b>		
Participants (trees)	0	2,063
Energy Savings (kWh)*	52,662	35,727
Demand Reduction (MW)	n/a	n/a
<b>Program Costs by Funding Source</b>		
Idaho Energy Efficiency Rider	\$27,652	\$147,750
Oregon Energy Efficiency Rider	\$0	\$0
Idaho Power Funds	\$838	\$0
Total Program Costs—All Sources	\$28,490	\$147,750
<b>Program Levelized Costs</b>		
Utility Levelized Cost (\$/kWh)	n/a	\$0.235
Total Resource Levelized Cost (\$/kWh)	n/a	\$0.235
<b>Benefit/Cost Ratios**</b>		
Utility Benefit/Cost Ratio	n/a	1.09
Total Resource Benefit/Cost Ratio	n/a	1.16

\* Incremental savings for trees planted between 2013–2016 not claimed in previous years.

\*\* No trees distributed in 2021 due to COVID-19 restrictions. Cost-effectiveness ratios have not been calculated.

## Description

Idaho Power’s Shade Tree Project operates in a small geographic area each spring and fall, offering no-cost shade trees to Idaho residential customers. Participants enroll using the online Energy-Saving Trees tool and pick up their tree at specific events. Unclaimed trees are donated to cities, schools, and other non-profit organizations.

Using the online enrollment tool, participants locate their home on a map, select from a list of available trees, and evaluate the potential energy savings associated with planting in different locations. During enrollment, participants learn how trees planted to the west and east save more energy over time than trees planted to the south and north.

Ensuring the tree is planted properly helps it grow to provide maximum energy savings. At the tree pickup events, participants receive additional education on where to plant trees for maximum energy savings and other tree care guidance from local experts. These local specialists include city arborists from participating municipalities, Idaho Power utility arborists, county master gardeners, and CSI horticulture students.

Each fall, Idaho Power sends participants from the previous two offerings a newsletter filled with reminders on proper tree care and links to resources, such as tree care classes and educational opportunities in the region. This newsletter was developed after the 2015 field audits identified common customer tree care questions and concerns.

According to the DOE, a well-placed shade tree can reduce energy used for summer cooling by 15% or more. Utility programs throughout the country report high customer satisfaction with shade tree programs and an enhanced public image for the utility related to sustainability and environmental stewardship. Other utilities report energy savings between 40 kWh per year (coastal climate, San Diego) and over 200 kWh per year (Phoenix) per tree planted.

To be successful, trees should be planted to maximize energy savings and ensure survivability. Two technological developments in urban forestry—the state sponsored Treasure Valley Urban Tree Canopy Assessment and the Arbor Day Foundation’s Energy-Saving Trees tool—provide Idaho Power with the information to facilitate a shade tree project.

### **Program Activities**

Idaho Power’s first 2020 Shade Tree Project event was scheduled for late April. Due to COVID-19 restrictions and to ensure the safety of customers, employees, and volunteers, the spring event was cancelled. Because the pandemic remained ongoing in the fall, Idaho Power also cancelled the event scheduled to occur in October. The company researched alternative options for holding the Shade Tree Project events but determined those options couldn’t be carried out consistent with COVID-19 safety protocols, or would have incurred additional costs, making the program not cost-effective. Customers were notified of the cancellation through the Shade Tree Project voicemail and an alert that was placed on the Idaho Power Shade Tree Project home page.

### **Marketing Activities**

Because both spring and fall Shade Tree Project offerings were cancelled, the company made every effort to notify customers of the change and to communicate tree-related information. Idaho Power added a cancellation alert to its program homepage. The company also published shade tree-related content on its social media channels and shared content from the company’s partners who were still able to provide trees locally, including the City of Boise’s City of Trees Challenge. In November 2020, a newsletter was sent to last season’s program participants. Instead of promoting the Shade Tree Project in *Home Energy Reports*, the reports featured general tips for planting shade trees.

### **Cost-Effectiveness**

Due to COVID-19, Idaho Power’s Shade Tree project events were canceled for 2020. Since no trees were distributed, the cost-effectiveness for the program has not been calculated since there is no savings benefit associated with the costs incurred in 2020. However, Idaho Power will report 52,662 kWh of savings for trees planted between 2013 and 2016. Unlike traditional energy savings measures in which the annual savings remain flat throughout the measure life and only first year savings are reported, for trees, the savings grow as the tree grows. The 52,662 kWh represents the incremental claimable annual savings not claimed in previous years.

For the Shade Tree Project, Idaho Power utilizes the Arbor Day Foundation’s software, which calculates energy savings and other non-energy impacts based on tree species and orientation/distance from the home. This tool, i-Tree software, estimates these benefits for years five, 10, 15, and 20 after the tree planting year. However, the savings from the tool assumes each tree is planted as planned and does not take into account survivorship of the trees. Idaho Power contracted with DNV GL to develop a model to calculate average values per tree using the tool data and determined a realization rate based on the survival rate. The calculator was used to determine the 52,662 kWh of incremental claimable savings for 2020.

### **2021 Program and Marketing Strategies**

Idaho Power plans to continue the Shade Tree Project in 2021, returning it to the Treasure Valley in the spring and the Magic Valley in the fall. To ensure the safety of customers and employees, the enrollment process will remain the same, but the trees will be shipped directly to customers’ homes. Arbor Day will manage shipping in the spring and fall which will eliminate the need for customers to attend an event to collect their trees.

Idaho Power will continue to market the program through direct-mail, focusing on customers identified as living in newly constructed homes and those identified using the Urban Tree Canopy Assessment tool in the Treasure Valley. The program will be promoted in the April 2021 *Home Energy Report*. In addition, Idaho Power maintains a wait list of customers who were unable to enroll because previous offerings were full. Idaho Power will reach out to these customers through direct-mail or email for the 2021 offerings. Idaho Power will continue to leverage allied interest groups and use social media and boosted Facebook posts if enrollment response rates decline.



**Simple Steps, Smart Savings™**

	2020	2019
<b>Participation and Savings</b>		
Participants (products)	6,894	5,729
Energy Savings (kWh)	148,404	271,452
Demand Reduction (MW)	n/a	n/a
<b>Program Costs by Funding Source</b>		
Idaho Energy Efficiency Rider	\$93,865	\$87,599
Oregon Energy Efficiency Rider	\$3,539	\$2,900
Idaho Power Funds	\$1,737	\$0
Total Program Costs—All Sources	\$99,141	\$90,499
<b>Program Levelized Costs</b>		
Utility Levelized Cost (\$/kWh)	\$0.073	\$0.032
Total Resource Levelized Cost (\$/kWh)	\$0.073	\$0.043
<b>Benefit/Cost Ratios</b>		
Utility Benefit/Cost Ratio	0.78	1.40
Total Resource Benefit/Cost Ratio	3.24	5.56

**Description**

Initiated in 2015, the Simple Steps, Smart Savings™ program is designed to increase sales of qualified energy-efficient appliances by encouraging customers to purchase energy-efficient clothes washers by offering an incentive on select products at the point of purchase.

Idaho Power and other regional utilities participate in the program, which is managed by a third-party contractor. Idaho Power pays the contractor a fixed amount for each kWh of energy savings achieved. A portion of the funding Idaho Power provides is used to buy down the price of the product, and a portion is applied to program administration and marketing. The funding can also be used for retailer promotions.

Customer rewards may include, but are not limited to, retailer gift cards, free related products, or reduced pricing. Each promotion is available in Idaho and Oregon.

BPA's Simple Steps program ended on September 30, 2020. The Simple Steps program was a combination of lighting sales along with showerhead and appliances sales. The decision to end the program was made because the lighting market transformed to high-efficiency lightbulbs. With most of the Simple Steps sales coming from lighting products, the program could not be cost-effectively maintained by just showerhead and appliances sales.

Idaho Power continued participation in the Simple Steps program until September 30. Idaho Power also participated in the BPA-sponsored, Simple Steps, Smart Savings™ energy-efficient lighting program, which is discussed further in the Energy Efficient Lighting program section of this report.

**Program Activities**

In the nine months the program was active, Idaho Power provided funding for qualified ENERGY STAR® rated clothes washers and high-efficiency showerheads. Idaho Power worked with Sears Hometown, RC Willey, and Best Buy to reduce the cost of select washers by \$25. In 2020, customers

purchased 392 units, compared to 761 in 2019. The decrease in participation was likely due to restrictions related to COVID-19 as stores temporarily closed or required appointments to look at products.

Idaho Power worked with six participating retailers on the high-efficiency showerhead promotion to reduce the price as follows: \$5-\$6 for 1.5 and 1.75 gpm units and \$2 for 2.0 gpm units. Customers purchased 6,502 qualified showerheads, as compared to 4,968 in 2019. Of those sales, 12% were 1.50 gpm, 5% were 1.75 gpm, and 83% were 2.0 gpm showerheads.

## Marketing Activities

To help support the appliance promotions, static clings were displayed on all qualifying units. These pieces informed customers about the promotion and the incentive they would receive. Monthly visits to check stock, point-of-purchase signs, and displays were suspended from March 26 until September 1, when field staff returned to stores to remove displays and remind store staff and management of the program end date.

Idaho Power posted information about the appliance promotions on its Appliances web page until September 30.

## Cost-Effectiveness

In 2019, the RTF reviewed and updated the savings assumptions for showerheads. As with past RTF workbooks, Idaho Power adjusts the assumptions regarding electric water heating saturation from the regional average of 60% to the company's average of 49% from the 2016 residential end-use study. Previously, the annual savings for showerheads ranged between 15 to 63 kWh with the electric water heat saturation adjustment. Based on the new workbook, showerhead annual savings are now between 5 and 69 kWh. While overall showerhead sales increased by 31% between 2019 and 2020, savings for showerheads decreased by 51%. This is largely due to increase of sales of the 2.0 gpm showerhead which made up 47% of sales 2019 and 83% in 2020. The savings for this showerhead type fell by 63% which impacted the overall cost-effectiveness of the program. The parameters that impacted the savings for showerheads include assumptions regarding the market baseline, in-situ flow rates, and number of showers.

For clothes washers, Idaho Power applied the per-unit savings from the approved BPA unit energy savings (UES) Measure List. While BPA applies the annual generator busbar savings of 153 kWh per unit, Idaho Power applies the annual site savings of 142 kWh per unit. This difference is due to the different line losses applied by Idaho Power and BPA. For the NEBs, Idaho Power used RTF's clothes washer workbook to determine the water and wastewater savings for the ENERGY STAR clothes washers.

The UCT and TRC ratios for the program are 0.78 and 3.24, respectively. The cost-effectiveness was largely impacted by the decrease of per unit showerheads savings. The RTF reviewed the showerhead savings again in 2020 and decided to deactivate the measure due to the market transformation in the region. Due to this and the other changes impacting the lighting portion of the Simple Steps promotion, BPA decided to sunset the offering on September 30, 2020.

For detailed information for all measures within the Simple Steps, Smart Savings™ program, see *Supplement 1: Cost-Effectiveness*.

## 2021 Program and Marketing Strategies

Idaho Power is in the process of trying to find a vendor to offer a new program to provide incentives for select ENERGY STAR rated appliances. Because the RTF deactivated the showerhead workbook,

Idaho Power is unable to claim savings and provide an incentive for the purchase of high-efficiency showerheads. As a result, Idaho Power will not be including showerheads in any buydown promotions.

## Weatherization Assistance for Qualified Customers

	2020*	2019
<b>Participation and Savings</b>		
Participants (homes/non-profits)	115	197
Energy Savings (kWh)	218,611	649,299
Demand Reduction (MW)	n/a	n/a
<b>Program Costs by Funding Source</b>		
Idaho Energy Efficiency Rider	\$0	\$0
Oregon Energy Efficiency Rider	\$0	\$0
Idaho Power Funds	\$1,385,577	\$1,303,727
Total Program Costs—All Sources*	\$1,385,577	\$1,303,727
<b>Program Levelized Costs</b>		
Utility Levelized Cost (\$/kWh)	\$0.244	\$0.114
Total Resource Levelized Cost (\$/kWh)	\$0.353	\$0.171
<b>Benefit/Cost Ratios</b>		
Utility Benefit/Cost Ratio	0.20	0.35
Total Resource Benefit/Cost Ratio	0.33	0.43

\* 2020 Total Program Costs includes accounting accruals and reversals associated with unspent dollars carried over into the next year. These accruals and reversals have been removed from the cost-effectiveness and levelized cost calculations.

### Description

The WAQC program provides financial assistance to regional CAP agencies in Idaho Power's service area. This assistance helps fund weatherization costs of electrically heated homes occupied by qualified customers who have limited incomes. Weatherization improvements enable residents to maintain a more comfortable, safe, and energy-efficient home while reducing their monthly electricity consumption. Improvements are available at no cost to qualified customers who own or rent their homes. These customers also receive educational materials and ideas on using energy wisely in their homes. Local CAP agencies determine participant eligibility according to federal and state guidelines. The WAQC program also provides limited funds to weatherize buildings occupied by non-profit organizations that serve primarily special-needs populations, regardless of heating source, with priority given to the electrically heated.

In 1989, Idaho Power began offering weatherization assistance in conjunction with the State of Idaho Weatherization Assistance Program (WAP). In Oregon, Idaho Power offers weatherization assistance in conjunction with the State of Oregon WAP. This allows CAP agencies to combine Idaho Power funds with federal weatherization funds to serve more customers with special needs in electrically heated homes.

Idaho Power has an agreement with each CAP agency in its service area for the WAQC program that specifies the funding allotment, billing requirements, and program guidelines. Currently, Idaho Power oversees the program in Idaho through five regional CAP agencies: Eastern Idaho Community Action Partnership (EICAP), El Ada Community Action Partnership (EL ADA), Metro Community Services (Metro Community), South Central Community Action Partnership (SCCAP), and Southeastern Idaho Community Action Agency (SEICAA). In Oregon, Community Connection of Northeast Oregon, Inc. (CCNO), and Community in Action (CINA) provide weatherization services for qualified customers.

The Idaho Department of Health and Welfare (IDHW) uses the DOE-approved energy audit program (EA5) for the Idaho WAP and, therefore, the Idaho CAP agencies use the EA5.

Annually, Idaho Power requires verification of approximately 10% of the homes weatherized under the WAQC program. This is done through two methods. The first method uses Idaho’s and Oregon’s state monitoring processes for weatherized homes. The state hires the quality-control inspector who ensures measures were installed to DOE and state WAP specifications. Utility representatives, weatherization personnel from the CAP agencies, CAPAI, and a Building Performance Institute (BPI) certified QC inspector review homes weatherized by each of the CAP agencies.

For the second method, Idaho Power contracts with two companies—Kent Kearns Enterprises and Greenback Home Solutions, LLC—that employ building performance specialists to verify installed measures in customer homes. Kent Kearns Enterprises verifies homes weatherized for the WAQC program in Idaho Power’s eastern and southern Idaho regions. Greenback Home Solutions verifies weatherization services provided through the WAQC program in the Capital and Canyon–West regions of Idaho. After these companies verify installed measures, any required follow-up is done by CAP agency personnel.

Idaho Power reports the activities related to the WAQC program as set forth below in compliance with IPUC Order No. 29505, as updated in Case No. IPC-E-16-30, Order No. 33702 and consolidates the WAQC Annual Report with Idaho Power’s *Demand-Side Management Annual Report* each year.

## Program Activities

### ***Weatherized Homes and Non-Profit Buildings by County***

In 2020, Idaho Power made \$1,369,325 available to Idaho CAP agencies. Of the funds provided, \$720,457 were paid to Idaho CAP agencies, while \$648,868 were accrued for future funding. This larger carryover was caused by COVID-19 in-home activity restrictions limiting the number of homes CAP agencies weatherized. Of the funds paid in 2020, \$654,961 directly funded audits, energy efficiency measures, and health and safety measures for qualified customers’ homes (production costs) in Idaho, and \$65,496 funded administration costs to Idaho CAP agencies for those homes weatherized.

In 2020, Idaho Power funds provided for the weatherization of 115 homes in Idaho, none in Oregon, and no non-profit buildings in Idaho. Table 12 shows each CAP agency, the number of homes weatherized, production costs, the average cost per home, administration payments, and total payments per county made by Idaho Power.

**Table 12. WAQC activities and Idaho Power expenditures by agency and county in 2020**

Agency/County	Number of Homes	Production Cost	Average Cost	Administration Payment to Agency	Total Payment
<b>Idaho Homes</b>					
EICAP					
Lemhi	0	\$ 0	\$ 0	\$ 0	\$ 0
<b>Agency Total</b>	<b>0</b>	<b>\$ 0</b>	<b>\$ 0</b>	<b>\$ 0</b>	<b>\$ 0</b>
<b>EL ADA</b>					
Ada	48	270,318	5,632	27,032	297,350
Elmore	8	54,716	6,839	5,472	60,187
Owyhee	11	63,107	5,737	6,311	69,417
<b>Agency Total</b>	<b>67</b>	<b>\$ 388,141</b>	<b>\$</b>	<b>\$ 38,814</b>	<b>\$ 426,955</b>
<b>Metro Community Services</b>					
Boise	1	6,504	6,504	650	7,155
Canyon	10	70,738	7,074	7,074	77,812
Gem	4	32,430	8,107	3,243	35,673
Payette	4	26,864	6,716	2,686	29,551

Agency/County	Number of Homes	Production Cost	Average Cost	Administration Payment to Agency	Total Payment
Washington	1	10,037	10,037	1,004	11,040
<b>Agency Total</b>	<b>20</b>	<b>\$ 146,573</b>	<b>\$</b>	<b>\$ 14,657</b>	<b>\$ 161,230</b>
SCCAP					
Blaine	3	20,894	6,965	2,089	22,984
Cassia	1	4,929	4,929	493	5,422
Jerome	4	26,786	6,696	2,679	29,464
Lincoln	1	9,274	9,274	927	10,202
Twin Falls	6	28,067	4,678	2,807	30,874
<b>Agency Total</b>	<b>15</b>	<b>\$ 89,950</b>	<b>\$</b>	<b>\$ 8,995</b>	<b>\$ 98,945</b>
SEICAA					
Bannock	7	19,489	2,784	1,949	21,438
Bingham	5	7,117	1,423	712	7,829
Power	1	3,690	3,690	369	4,059
<b>Agency Total</b>	<b>13</b>	<b>\$ 30,296</b>	<b>\$</b>	<b>\$ 3,030</b>	<b>\$ 33,326</b>
<b>Total Idaho Homes</b>	<b>115</b>	<b>\$ 654,961</b>	<b>\$</b>	<b>\$ 65,496</b>	<b>\$ 720,457</b>
Non-Profit Buildings					
Canyon	1	10,572	10,572	1,057	11,630
Lincoln	1	14,993	14,993	1,499	16,492
Payette	1	12,555	12,555	1,256	13,811
Twin Falls	1	13,924	13,924	1,392	15,316
<b>Total Non-Profit Buildings</b>	<b>0</b>	<b>\$ 0</b>	<b>\$ 0</b>	<b>\$ 0</b>	<b>\$ 0</b>
<b>Oregon Homes</b>					
CCNO					
<b>Agency Total</b>	<b>0</b>	<b>\$ 0</b>	<b>0</b>	<b>\$ 0</b>	<b>\$ 0</b>
CINA					
<b>Agency Total</b>	<b>0</b>	<b>\$ 0</b>	<b>\$ 0</b>	<b>\$ 0</b>	<b>\$ 0</b>
<b>Total Oregon Homes</b>	<b>0</b>	<b>\$ 0</b>	<b>\$ 0</b>	<b>\$ 0</b>	<b>\$ 0</b>
<b>Total Program</b>	<b>115</b>	<b>\$ 654,961</b>	<b>\$</b>	<b>\$ 65,496</b>	<b>\$ 720,457</b>

Note: Dollars are rounded.

The base funding for Idaho CAP agencies is \$1,212,534 annually, which does not include carryover from the previous year. Idaho Power's agreements with CAP agencies include a provision that identifies a maximum annual average cost per home up to a dollar amount specified in the agreement between each CAP agency and Idaho Power. The intent of the maximum annual average cost allows the CAP agency flexibility to service some homes with greater or fewer weatherization needs. It also provides a monitoring tool for Idaho Power to forecast year-end outcomes. The average cost per home weatherized is calculated by dividing the total annual Idaho Power production cost of homes weatherized by the total number of homes weatherized that the CAP agencies billed to Idaho Power during the year. The maximum annual average cost per home in the 2020 agreement was \$6,000. In 2020, Idaho CAP agencies had a combined average cost per home weatherized of \$5,695.

There is no maximum annual average cost for the weatherization of buildings occupied by non-profit agencies.

CAP agency administration fees are equal to 10% of Idaho Power's per-job production costs. The average administration cost paid to agencies per Idaho home weatherized in 2020 was \$570. Not included in this report's tables are additional Idaho Power staff labor, marketing, home verification,



and support costs for the WAQC program totaling \$50,028 for 2020. These expenses were in addition to the WAQC program funding requirements in Idaho specified in IPUC Order No. 29505.

In compliance with IPUC Order No. 29505, WAQC program funds are tracked separately, with unspent funds carried over and made available to Idaho CAP agencies in the following year. In 2020, \$156,791 in unspent funds from 2019 were made available for expenditures in Idaho. Table 13 details the funding base and available funds from 2019 and the total amount of 2020 spending.

**Table 13. WAQC base funding and funds made available in 2020**

Agency	2020 Base	Available Funds from 2019	Total 2020 Allotment	2020 Spending
<b>Idaho</b>				
EICAP	\$ 12,788	\$ 0	\$ 12,788	\$ 0
EL ADA	568,479	0	568,479	426,955
Metro Community Services	302,259	0	302,259	161,230
SCCAP	167,405	55,690	223,095	98,945
SEICAA	111,603	71,709	183,312	33,326
Non-profit buildings	50,000	29,391	79,391	0
<b>Idaho Total</b>	<b>\$ 1,212,534</b>	<b>\$ 156,791</b>	<b>\$ 1,369,325</b>	<b>\$ 720,457</b>

Note: Dollars are rounded.

To help keep weatherization crews and customers safe from exposure to COVID-19, CAP Agencies temporarily suspended weatherization activities for Idaho Power's WAQC program in March 2020. In 2020, neither CAP Agencies nor Idaho Power monitored weatherized homes and no visits were made to customer homes through the state monitoring system. Because only 10 homes were weatherized by March, Idaho Power did not have the opportunity to have any of the homes verified through its home verification system.

The DOE also had CAP Agency Weatherization adjust services and follow Centers for Disease Control (CDC) and DOE guidelines if individual agencies did not suspend services. Some CAP agencies began certain weatherization activities under CDC and DOE guidelines in early summer. Because weatherization personnel provided services for the state WAPs between March and December, Idaho Power allowed CAP agencies within its service area to leverage state and federal funding along with its funding.

Because COVID-19 restrictions caused various weatherization departments to lose months of work, production schedules were lower than normal, and more Idaho Power funding was not spent. Unspent funding will be carried over and used for weatherization services in 2021.

### ***Weatherization Measures Installed***

Table 14 details home counts for which Idaho Power paid all or a portion of each measure's cost during 2020. The home counts column shows the number of times any percentage of that measure was billed to Idaho Power during the year. If totaled, measure counts would be higher than total homes weatherized because the number of measures installed in each home varies.

WAQC and other state WAPs nationwide are whole-house programs that offer several measures that have costs but do not necessarily save energy, or for which the savings cannot be measured. Included in this category, are health and safety measures and home energy audits. Health and safety measures are necessary to ensure weatherization activities do not cause unsafe situations in a customer's home or compromise a home's existing indoor air quality (IAQ). Idaho Power contributes funding for the

installation of items that do not save energy, such as smoke and carbon monoxide detectors, vapor barriers, electric panel upgrades, floor registers, boots, kitchen range fans, and venting of bath and laundry areas. While these items increase health, safety, and comfort and are required for certain energy-saving measures to work properly, they increase costs of the job.

**Table 14. WAQC summary of measures installed in 2020**

	Counts		Production Costs
<b>Idaho Homes</b>			
Audit	85	\$	9,129
Ceiling Insulation	39		38,046
CFLs/LED Bulbs	18		996
Doors	58		43,241
Ducts	16		9,483
Floor Insulation	23		29,528
Furnace Repair	2		549
Furnace Replacement	86		337,409
Health and Safety	21		15,410
Infiltration	79		8,628
Other	3		11,990
Pipes	5		346
Vents	5		222
Wall Insulation	5		2,128
Water Heater	1		1,348
Windows	73		146,509
<b>Total Idaho Homes</b>		<b>\$</b>	<b>654,961</b>
<b>Oregon Homes</b>	0	<b>\$</b>	<b>0</b>
<b>Total Oregon Homes</b>			<b>0</b>
<b>Idaho Non-Profits</b>	0		<b>0</b>
<b>Total Idaho Non-Profit Measures</b>		<b>\$</b>	<b>0</b>

Note: Dollars are rounded.

## Marketing Activities

Information about WAQC is available in a brochure (English and Spanish) and on the Income Qualified Customers page of Idaho Power's website. The CAP agencies promote the program and maintain a continual waiting list for interested customers.

## Cost-Effectiveness

Program cost-effectiveness declined in 2020 from both the UCT and TRC perspective due to the adoption of updated per home savings estimates informed by a third-party weatherization billing analysis. The UCT declined from 0.35 to 0.20, while the TRC decreased from 0.43 to 0.33.

To address the decrease in cost-effectiveness from lower energy savings estimates, Idaho Power will work with EEAG, as well as the weatherization managers who oversee the weatherization work, to discuss ways to improve the program. See the WAQC evaluation section for more details of the billing analysis.

While final cost-effectiveness is calculated based on measured consumption data, cost-effectiveness screening begins during the initial contacts between CAP agency weatherization staff and the customer. In customer homes, the agency weatherization auditor uses the EA5 to conduct the initial audit of

potential energy savings for a home. The EA5 compares the efficiency of the home prior to weatherization to the efficiency after the proposed improvements and calculates the value of the efficiency change into a savings-to-investment ratio (SIR). The output of the SIR is similar to the PCT ratio. If the EA5 computes an SIR of 1.0 or higher, the CAP agency is authorized to complete the proposed measures. The weatherization manager can split individual measure costs between Idaho Power and other funding sources with a maximum charge of 85% of total production costs to Idaho Power. Using the audit tool to pre-screen projects ensures each weatherization project will result in energy savings.

The 2020 cost-effectiveness analysis continues to incorporate the following directives from IPUC Order No. 32788:

- Applying a 100% NTG value to reflect the likelihood that WAQC weatherization projects would not be initiated without the presence of a program
- Claiming 100% of project savings
- Including an allocated portion of the indirect overhead costs
- Applying the 10% conservation preference adder
- Claiming \$1 of benefits for each dollar invested in health, safety, and repair measures
- Amortizing evaluation expenses over a three-year period

Finally, the cost-effectiveness calculations were updated in 2020 to remove the impacts of any accruals and reversals associated with unspent dollars carried over into the following year. Generally, the carryover dollars are reversed the following year when the CAP agencies spend the previous year's unused funds. A new accrual is made at the end of the year for the new carryover dollars. These annual accruals and reversal have been similar in amount each year and have had a relatively minimal impact on the total utility cost of the program and to the program's overall cost-effectiveness. As mentioned previously, because weatherization work was restricted during COVID-19, Idaho Power is carrying over a larger amount of dollars from 2020 to 2021. By leaving this accounting entry in the cost-effectiveness calculation, it would overstate expenses in 2020 while the subsequent reversal would understate expenses in 2021.

## Customer Education and Satisfaction

The CAP agency weatherization auditor explains to the customer which measures are analyzed and why. Further education is done as the crew demonstrates the upgrades and how they will help save energy and provide an increase in comfort. Idaho Power provides each CAP agency with energy efficiency educational materials for distribution to customers during home visits. Any customers whose homes are selected for the company's post-weatherization home verification receive additional information and have the opportunity to ask the home verifiers more questions.

Idaho Power uses independent, third-party verification companies to ensure the stated measures were installed in the homes and to discuss the program with these customers. In 2020, home verifiers did not visit customer homes for feedback about the program due to COVID-19 concerns.

A customer survey was used to assess major indicators of customer satisfaction throughout the service area. All program participants in all regions were asked to complete a survey after their homes were weatherized. Survey questions gathered information about how customers learned of the program, reasons for participating, how much customers learned about saving energy in their homes, and the likelihood of household members changing behaviors to use energy wisely.

Idaho Power received survey results from 94 of 115 households weatherized by the program in 2020. Some highlights include the following:

- Nearly 39% of respondents learned of the program from a friend or relative, and over 21% learned of the program from an agency flyer.
- Almost 80% of the respondents reported their primary reason for participating in the weatherization program was to reduce utility bills, almost 40% had concerns about their existing furnace, and nearly 31% wanted to improve the comfort of their home.
- Over 73% reported they learned how air leaks affect energy usage, and nearly 67% indicated they learned how insulation affects energy usage during the weatherization process.
- Nearly 53% of respondents said they learned how to use energy wisely. Most respondents (98%) reported they were likely to change habits to save energy, and almost 63% reported they have shared all the information about energy use with members of their household.
- Over 94% of the respondents reported they think the weatherization they received will significantly affect the comfort of their home, and almost all (99%) said they were very satisfied with the program.
- Over 70% of the respondents reported the habit they were most likely to change was washing full loads of clothes, and more than 61% said that turning off all the lights when not in use was a habit they were likely to adopt to save energy. Turning the thermostat up in the summer was reported by nearly 53% of the respondents, and turning the thermostat down in the winter was reported by more than 56% as a habit they and members of the household were most likely to adopt to save energy.

A summary of the survey is included in *Supplement 2: Evaluation*.

## Evaluations

In late 2019, Idaho Power contracted with Nexant to conduct a billing analysis of 2016-2018 weatherization jobs for both the WAQC and Weatherization Solutions for Eligible Customers programs. The analysis estimated the electric energy savings of the weatherization jobs by comparing whole-home energy usage of the participants, before and after the weatherization jobs, to a matched comparison group. The results of the analysis showed that savings from weatherization jobs are detectable, but savings are reduced relative to savings reported in previous years, especially in regard to heat pump installations. Weatherization jobs completed in 2019 were not calculated because the analysis requires a full year of post-weatherization billing data, which were unavailable at the time of the study.

For program reported savings, Nexant recommended using the calculated savings from only 2018 weatherization jobs, to use the most recent data. However, to avoid anomalous and unreliable results, Nexant recommended utilizing the 2016-2018 weatherization results where sample sizes are low. Idaho Power has calculated 2020 savings for these programs in the manner recommended by Nexant.

Any changes to the program as a result of the billing analysis will be reported in the *Demand-Side Management 2021 Annual Report*. See the complete analysis report in *Supplement 2: Evaluation*.

## 2021 Program and Marketing Strategies

In 2021, Idaho Power will continue to provide financial assistance to CAP agencies while exploring changes to improve program delivery. The company will also continue to provide the most benefit possible to special-needs customers while working with Idaho and Oregon WAP personnel.

Idaho Power plans to verify approximately 10% of the homes weatherized under the WAQC program via home-verification companies and the Idaho and Oregon state monitoring process.

In 2021, Idaho Power will support the whole-house philosophy of the WAQC program and Idaho and Oregon WAP by continuing to allow a \$6,000 annual maximum average per-home cost.

In Idaho during 2021, Idaho Power expects to contribute the base amount plus available funds from 2020 to total \$1,861,402 in weatherization measures and agency administration fees. Of this amount, \$129,391 will be provided to the non-profit pooled fund to weatherize buildings housing non-profit agencies that primarily serve qualified customers in Idaho.

Idaho Power will continue to maintain the program content on its website and other marketing collateral.

## Weatherization Solutions for Eligible Customers

	2020	2019
<b>Participation and Savings</b>		
Participants (homes)	27	129
Energy Savings (kWh)	47,360	504,988
Demand Reduction (MW)	n/a	n/a
<b>Program Costs by Funding Source</b>		
Idaho Energy Efficiency Rider	\$198,226	\$936,721
Oregon Energy Efficiency Rider	\$0	\$0
Idaho Power Funds	\$10,489	\$20,905
Total Program Costs—All Sources	\$208,715	\$957,626
<b>Program Levelized Costs</b>		
Utility Levelized Cost (\$/kWh)	\$0.338	\$0.119
Total Resource Levelized Cost (\$/kWh)	\$0.338	\$0.119
<b>Benefit/Cost Ratios</b>		
Utility Benefit/Cost Ratio	0.13	0.30
Total Resource Benefit/Cost Ratio	0.23	0.43

### Description

Weatherization Solutions for Eligible Customers is an energy efficiency program designed to serve Idaho Power residential customers in Idaho whose income falls between 175% and 250% of the current federal poverty level. Initiated in 2008, the program is designed to mirror the WAQC program. These customers often do not have disposable income to invest in energy efficiency upgrades, and they typically live in housing similar to WAQC customers.

The Weatherization Solutions program also benefits certain customers on the WAQC waiting list. When customer income overlaps both programs, this program may offer an earlier weatherization date than WAQC, resulting in less wait time for the customer and quicker energy savings.

Potential participants are interviewed by a participating contractor to determine household occupant income eligibility, as well as to confirm the home is electrically heated. If the home is a rental, the landlord must agree to maintain the unit's current rent for a minimum of one year, and to help fund a portion of the cost of weatherization. If the customer is eligible, an auditor inspects the home to determine which upgrades will save energy, improve IAQ, and/or provide health and safety measures for the residents. To be approved, energy efficiency measures and repairs must have an SIR of 1.0 or higher, interact with an energy-saving measure, or be necessary for the health and safety of the occupants.

The Weatherization Solutions for Eligible Customers program uses a home audit tool called the HAT14.1, which is similar to the EA5 audit tool used in WAQC. The home is audited for energy efficiency measures and the auditor proposes upgrades based on the SIR ratio calculated by HAT14.1. As in WAQC, if the SIR is 1.0 or greater, the contractor is authorized to upgrade that measure. Measures considered for improvement are window and door replacement; ceiling, floor, and wall insulation; HVAC repair and replacement; water heater repair and replacement; and pipe wrap. Also included is the potential to replace lightbulbs and refrigerators. Contractors invoice Idaho Power for the project costs, and if the home is a rental, a minimum landlord payment of 10% of the cost is required.



Idaho Power's agreement with contractors includes a provision that identifies a maximum annual average cost per home. The intent of the maximum annual average cost is to allow contractors the flexibility to service homes with greater or fewer weatherization needs. It also provides a monitoring tool for Idaho Power to forecast year-end outcomes.

### **Program Activities**

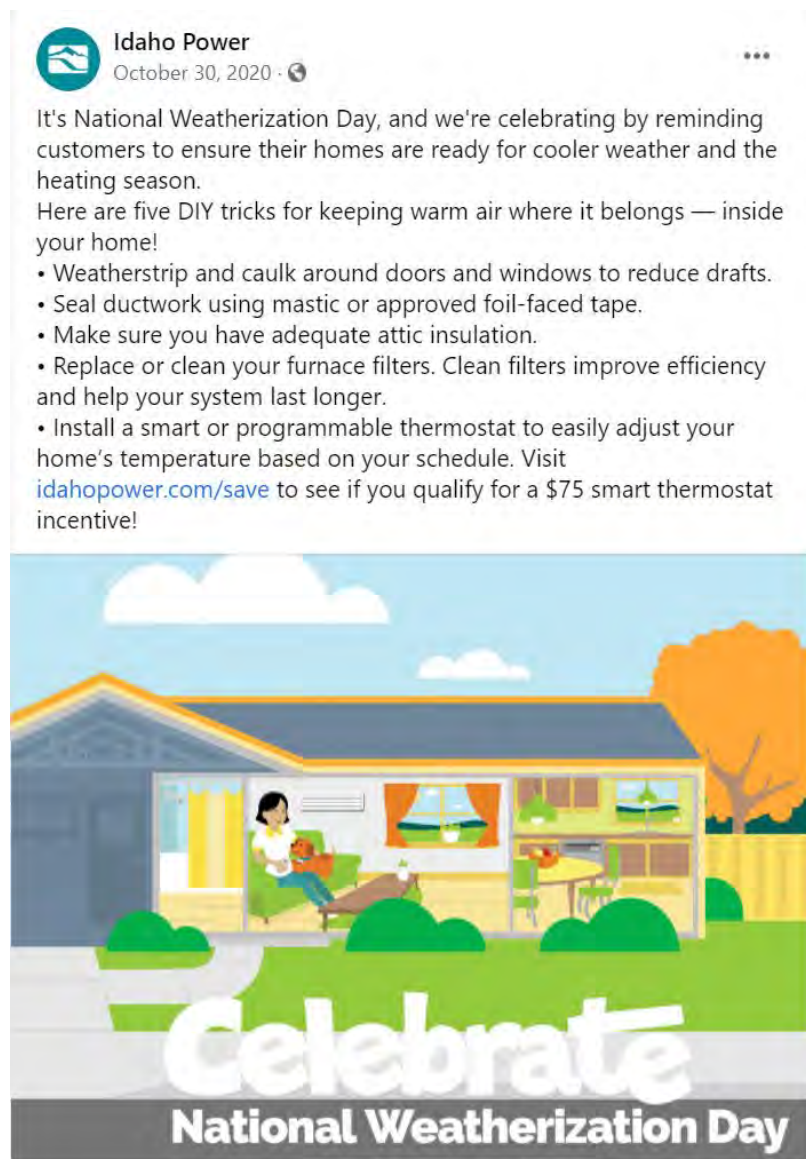
In 2020, contractors weatherized 27 Idaho homes for the program: 10 in eastern Idaho, seven in Idaho Power's Canyon–West Region, four in south-central Idaho, and six in the company's Capital Region. Of those 27 homes weatherized, 15 were single-family, 11 were manufactured homes, and one was a multi-family unit.

Due to COVID-19 restrictions, in March 2020, the program suspended in-home activities. To help ensure crew members and customer safety, contractors did not enter customer homes throughout the rest of 2020.

### **Marketing Activities**

Prior to the program suspending in-home activities in March, Idaho Power distributed one marketing email for weatherization and one bill insert in February. The email was sent to 3,010 customers and received 518 unique opens. The bill insert was sent to 297,471 residential customers in Idaho. The program was also promoted on the Idaho Power website homepage in January.

In the absence of Weatherization Solutions offerings, Idaho Power promoted do-it-yourself weatherization techniques in a social media post on National Weatherization Day and with a December bill insert. The insert was sent to 297,297 Idaho and Oregon residential customers and included tips like checking for air leaks, installing a smart thermostat, and behavior changes to increase comfort and lower energy bills.



**Figure 17. Social media posts for Weatherization Solutions for Eligible Customers program**

### Cost-Effectiveness

Program cost-effectiveness declined in 2020 from both the UCT and TRC perspective due to the adoption of updated per home savings estimates as a result of a completed weatherization billing analysis. The 2020 UCT ratio is 0.13, down from 0.30, and the TRC ratio is 0.23 compared with 0.43 in 2019. See the WAQC evaluation section of this report for more details on the billing analysis.

Weatherization Solutions for Eligible Customers projects, similar to WAQC program guidelines, benefit from a pre-screening of measures through a home audit process. The home audit process ensures an adequate number of kWh savings to justify the project and provides more consistent savings for billing analysis. See WAQC cost-effectiveness for a discussion of the audit and prescreening process, which is similar for both programs.

For further details on the overall program cost-effectiveness assumptions, see *Supplement 1: Cost-Effectiveness*.

## Customer Satisfaction

A customer survey was used to assess major indicators of customer satisfaction with the program throughout the service area. All program participants in all regions were asked to complete a survey after their homes were weatherized. Survey questions gathered the following information:

- How customers learned of the program
- Reasons for participating
- How much customers learned about saving energy in their homes
- The likelihood of household members changing behaviors to use energy wisely

Idaho Power received survey results from 11 of 27 households weatherized by the program in 2020. Some highlights include the following:

- Eighteen percent of respondents learned of the program from a friend or relative, and another almost 18% learned of the program from an agency flyer. Even though Idaho Power did not send any direct-mail letters about the Weatherization Solutions program in 2020, over 54% of respondents said they learned about the program from direct-mail. These respondents may be recalling a letter they received in a previous year.
- Nearly 82% of the respondents reported their primary reason for participating in the weatherization program was to reduce utility bills, 27% wanted to improve the comfort of their home, and 27% had concerns about their existing furnace.
- Almost 73% reported they learned how air leaks affect energy usage, and over 45% indicated they learned how insulation affects energy usage.
- More than 55% of respondents said they learned how to use energy wisely. Eighty percent reported they were very likely to change habits to save energy, and almost 73% reported they have shared all the information about energy use with members of their household.
- Nearly 82% of the respondents reported they think the weatherization they received will significantly affect the comfort of their home, and 100% said they were very satisfied with the program.
- Eighty percent of the respondents reported the habit they were most likely to change was turning off lights when not in use, and 70% said that washing full loads of clothes was a habit they were likely to adopt to save energy. Turning the thermostat up in the summer was reported by 70% of the respondents and turning the thermostat down in the winter was reported by 70% as a habit they and members of the household were most likely to adopt to save energy.

A summary of the survey is included in *Supplement 2: Evaluation*.

Though two independent companies normally perform random verifications of weatherized homes and visit with customers about the program, in 2020, no homes were verified because of COVID-19 restrictions.

## Evaluations

In 2020, Idaho Power contracted with Nexant to conduct a participant billing analysis of weatherization jobs completed in 2016-2018. The 2020 savings reported for the program are based on the recommendations and estimated savings from the Nexant evaluation. See the WAQC section of this report for more details.

Any program updates based on this analysis will be reported in the *Demand-Side Management 2021 Annual Report*. See the complete analysis report in *Supplement 2: Evaluation*.

## 2021 Program and Marketing Strategies

Once COVID-19 safety protocols allow for in-home work to resume, Idaho Power will notify contractors to resume weatherization projects.

Idaho Power may evaluate program guidelines in 2021, and potentially update the current audit software to a newer version. Once program activities resume, Idaho Power will update brochures as necessary to help spread the word about the program in all communities. Additional marketing for the program may include bill inserts, emails, *News Briefs*, website updates, and advertisements in various regional publications, particularly those with a senior and/or low-income focus. Social media posts and boosts, coordinated partner content, and employee education may be used to increase awareness. Regional marketing and targeted digital ads will be considered based on need as evidenced by any regional contractor's waiting list for Weatherization Solutions services. The program will be promoted at county fairs, home shows, and resource fairs, as needed.

## Commercial/Industrial Sector Overview

In 2020, Idaho Power's commercial sector consisted of 74,410 commercial, governmental, school, and small business customers. The number of customers increased by 1,555 or 2.1% from 2019. Energy use per month for customers in this sector is not as homogenous as other customer sectors and can vary by several hundred thousand kWh each month depending on customer type. In 2020, the commercial sector represented 27.1% of Idaho Power's total retail annual electricity sales.

Industrial and special contract customers are Idaho Power's largest individual energy consumers. In 2020, there were 127 customers in this category, which represented approximately 22.8% of Idaho Power's total retail annual electricity sales.

Idaho Power's C&I sector has many energy efficiency programs available to commercial, industrial, governmental, schools, and small business customers. The suite of options can help businesses of all sizes implement energy efficiency measures.

**Table 15. Commercial/Industrial sector program summary, 2020**

Program	Participants	Total Cost		Savings	
		Utility	Resource	Annual Energy (kWh)	Peak Demand (MW)
<b>Demand Response</b>					
Flex Peak Program .....	141 sites	\$ 542,480	\$ 542,480		24
<b>Total</b> .....		<b>\$ 542,480</b>	<b>\$ 542,480</b>		<b>24</b>
<b>Energy Efficiency</b>					
C&IEE					
Custom Projects .....	169 projects	18,059,396	41,604,451	94,006,717	
Green Motors—Industrial.....	10 motor rewinds			56,012	
New Construction .....	119 projects	2,383,983	4,175,611	14,565,936	
Retrofits .....	630 projects	3,587,277	11,964,431	20,965,215	
Commercial Energy-Saving Kit .....	1,379 kits	103,678	103,678	258,368	
Small Business Direct Install.....	139 projects	339,830	339,830	780,260	
<b>Total</b> .....		<b>\$24,474,163</b>	<b>\$ 58,188,001</b>	<b>130,632,507</b>	

**Note:** See Appendix 3 for notes on methodology and column definitions.  
Totals may not add up due to rounding.

### Energy Efficiency Programs

#### C&I Energy Efficiency—Custom Projects

For projects not covered by the New Construction or Retrofits options, Custom Projects offers incentives for qualifying large, custom energy efficiency projects and energy management measures, such as strategic energy management, tune-ups, system optimization, and recommissioning.

Additionally, Idaho business customers who wish to find ways to save energy and to quantify their savings can obtain a scoping assessment and detailed assessment through this option.

#### C&I Energy Efficiency—New Construction

This option offers specific incentives for designing and building better-than-code energy-efficient features into a new construction, major renovation, addition, expansion or change-of-space project.

## **C&I Energy Efficiency—Retrofits**

This option offers specific incentives for simple energy-saving retrofits to existing equipment or facilities.

### **Green Motors Initiative**

Under the Green Motors Initiative (GMI), service center personnel are trained and certified to repair and rewind motors to improve reliability and efficiency. If a rewind returns a motor to its original efficiency, the process is called a “Green Rewind.” By rewinding a motor under this initiative, customers may save up to 40% of the cost of a new motor.

### **Commercial Energy-Saving Kits**

This program offers free ESKs filled with products and tips to help small businesses save energy. Three industry-specific versions of the kit are delivered directly to Idaho Power’s small business customers: office, restaurant, and retail.

### **Small Business Direct Install**

Idaho Power launched a SBDI program in November 2019 targeting typically hard-to-reach small business customers. SBDI is implemented by a third-party contractor that provides turn-key services. Idaho Power pays 100% of the cost to install eligible measures for customers who use 25,000 kWh annually or less. SBDI is offered to eligible customers in a strategic geo-targeted approach.

### **Oregon Commercial Audits**

This statutory-required program offers free energy audits, evaluations, and educational products to Oregon customers to help them achieve energy savings.

## ***Demand Response Program***

### **Flex Peak**

Idaho Power pays an incentive to commercial and industrial customers who participate in this demand response program. These customers voluntarily help the company reduce summer demand on specific summer weekdays or for other system needs.

## ***Marketing***

In 2020, Idaho Power continued to market the programs listed above, targeting the following customers: commercial, industrial, governmental, schools, small businesses, architects, engineers, and other design professionals.

### **Bill Inserts and Print Materials**

A bill insert highlighting how Idaho Power’s incentives can save customers money was included in 41,313 business customer bills in March and 41,275 bills in July.

Additionally, the company redesigned its C&I Energy Efficiency overview brochure in January.

### **Print and Digital Advertising**

In 2020, Idaho Power had planned to expand on the new ad campaign for the C&I Energy Efficiency Program launched in 2019. The ads targeted small to large businesses and showed that saving energy and money is for everyone by highlighting program participants. However, due to COVID-19



safety concerns around the logistics of maintaining appropriate social distancing while photographing the campaign, the company did not expand its campaign in 2020. Given that the campaign was not expanded, the company opted not to advertise in new print and digital publications as originally intended.

The company continued using ads highlighting energy efficiency, along with the company's clean energy and low-price messaging in select publications.

Print ads ran in the *Idaho Business Review* in April, May, August, September, October, and November; the *BOC Bulletin* in January and August; and the *Idaho Association of General Contractors Building Idaho* magazine in the spring. Ads also ran in the Building Owners and Managers Association (BOMA) membership directory and symposium program, *Idaho Business Review Top Projects Awards* publication, and the Idaho Association of General Contractors membership directory. Additionally, Idaho Power sponsored the Construction section in the *Idaho Business Review's Book of Lists*, which included an ad, company logo in the table of contents, and an article highlighting Idaho Power and the company's energy efficiency programs.

Idaho Power continued using search engine marketing to display Idaho Power's C&I Energy Efficiency Program near the top of the search results with the paid search terms when customers search for energy efficiency business terms. These ads received 183,107 impressions and 9,488 clicks.

## Newsletters

Idaho Power produces and distributes *Energy@Work*, a newsletter about Idaho Power company information and energy efficiency topics for business customers. Typically, a printed version is produced twice a year, while an email version is produced quarterly. Two issues of the email version included content that aligns with the printed version, and the other two issues included more technical content.

Idaho Power had planned to send its first issue of *Energy@Work* in a print and electronic format in March 2020. The newsletter was about to go to print when COVID-19 became a serious concern, so the company pivoted its plans. The original newsletter content was replaced with articles highlighting free and low-cost tips for businesses that were running in a different capacity than normal, along with information on virtual training opportunities. Given that many people were now working from home, the company opted not to print the newsletter, but did send it electronically to 9,808 business customers in April.

The summer version of the newsletter was emailed to 12,315 customers in July. Topics included air circulation in buildings, a video about energy-saving improvements at the Idaho Humane Society, and descriptions of the free resources available to help customers save energy and money, such as IDL's ERL, tips brochures, and training opportunities. The fall issue, sent to 10,456 customers, focused on temporary incentive increases, Idaho Power's low prices, and a video about the proposed Boardman to Hemingway transmission line project. The winter issue was emailed to 13,085 customers in December. The newsletter highlighted the free energy efficiency services offered by the IDL, the recent closure of the Boardman Oregon coal plant, tips and incentives for reducing water leaks, and changes to net metering services.

## Airport Advertising

To reach business customers, Idaho Power continued to display two backlit ads throughout the airport in 2020. An ad featuring program participants was located in the baggage claim area, while an ad on alternating airport display boards highlighted the company's clean energy goal—Clean Today. Cleaner Tomorrow.<sup>®</sup>—and the role energy efficiency plays in achieving that goal.

## Radio

Idaho Power sponsored messages on public radio stations in Boise, Twin Falls, and Pocatello from July through September. The company ran a total of 370 messages in Boise and Twin Falls, and 549 messages in Pocatello.

## Social Media

Idaho Power continued using regular LinkedIn posts focused on energy-saving tips, program details, incentives, and training opportunities. In April, the company ran a short series of energy-saving tips for businesses, specific to free and low-cost actions they could take during the pandemic. When appropriate, these messages were also shared on Idaho Power's Facebook and Twitter pages. The company also boosted Facebook posts related to some of the PR success story videos listed below.

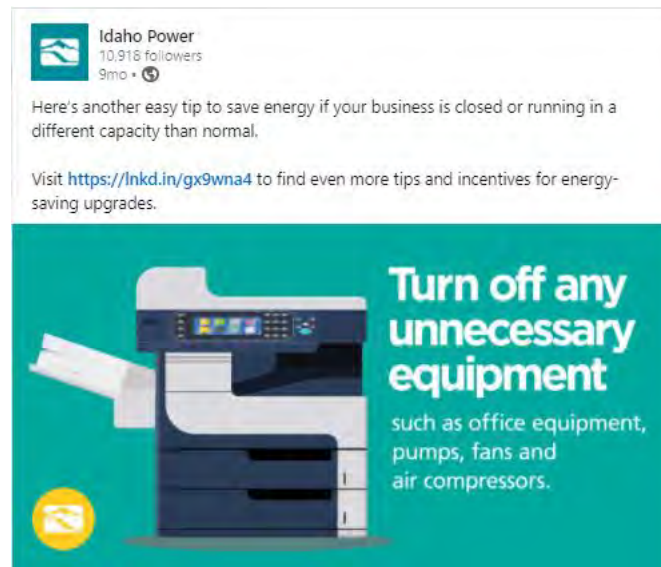


Figure 18. Energy-saving tip posted on LinkedIn

## Public Relations

Idaho Power provides PR support to customers who want to publicize the work they have done to become more energy efficient. Upon request, Idaho Power creates large-format checks used for media events and/or board meetings. Idaho Power will continue to assist customers with PR opportunities by creating certificates for display within their buildings and speaking at press events, if requested.

While these opportunities were limited in 2020, Idaho Power did produce checks and/or sent news releases for several companies, including Healthwise, the City of Blackfoot, the Idaho Humane Society, McCain Foods, and Amalgamated Sugar.

The company also released success story videos on YouTube highlighting how the Sun Valley Resort and Idaho Humane Society benefitted from Idaho Power's energy efficiency programs. The videos were shared on Idaho Power's social media channels, boosted on Facebook and promoted via a *News Briefs* article to media. The Idaho Humane Society video was also shared in the *Connections* newsletter and *Energy@Work* newsletter.

## Association and Event Sponsorships

Idaho Power's C&I Energy Efficiency Program typically sponsors a number of associations and events. In 2020, many of these events were cancelled or held virtually.

The company sponsored the BOMA Commercial Real Estate Symposium February 11, in Boise. The Idaho Power Business Innovation and Development director participated in a panel discussion about growth in Idaho. The company also developed slides with key company facts that rotated on the screen before the event, hosted a booth with energy efficiency materials, and placed an energy efficiency flyer on each table setting.

Idaho Power also remained a sponsor of the *Idaho Business Review's* Top Projects Awards held virtually in August. The company logo was used throughout the event and a video featuring an Idaho Power senior engineer congratulated the winners and promoted and thanked them for using the company's energy efficiency programs.

**congratulations**

Congratulations to these Top Project finalists and thank you for your interest in saving energy with Idaho Power's energy efficiency incentive programs.

- **Adare**  
Pacific West Architecture
- **Boise Plaza Atrium**  
BRS Architects
- **Central District Health**  
Pivot North Architecture
- **Chobani Office Building and Global R&D Center**  
CSHQA
- **The Commons Climbing Gym**  
neUdesign Architects
- **Idaho Humane Society Animal Welfare Center**  
CSHQA
- **Marsing Sr./Jr. High School**  
Design West Architects
- **Pony Express Carwash**  
CRSA
- **South Meridian YMCA THRIVE Center and Expanded Weight Room**  
Hummel Architects
- **State of Idaho Chinden Campus Renovation — Building 2**  
CSHQA
- **West Ada School District — Mountain View High School Addition**  
Hummel Architects

**IDAHO POWER.**  
An IDACORP Company

[idahopower.com/business](http://idahopower.com/business)

Figure 19. Ad for the *Idaho Business Review* Top Projects Award

## Customer Satisfaction

Idaho Power conducts the Burke Customer Relationship Survey each year. In 2020, 57% of small business survey respondents indicated Idaho Power is meeting or exceeding their needs with information on how to use energy wisely and efficiently. Sixty-three percent of respondents indicated Idaho Power is meeting or exceeding their needs by encouraging energy efficiency with its customers. Fifty-one percent of Idaho Power small business customers surveyed in 2020 indicated the company is meeting or exceeding their needs in offering energy efficiency programs, and 23% of the respondents indicated they have participated in at least one Idaho Power energy efficiency program. Of the small business survey respondents who have participated in at least one Idaho Power energy efficiency program, 89% are “very” or “somewhat” satisfied with the program.

In 2020, 62% of large commercial and industrial survey respondents indicated Idaho Power is meeting or exceeding their needs with information on how to use energy wisely and efficiently. Seventy percent of large commercial and industrial respondents indicated Idaho Power is meeting or exceeding their needs by encouraging energy efficiency with its customers. Sixty percent of customers surveyed in 2020 indicated the company is meeting or exceeding their needs in offering energy efficiency programs, and 75% of the respondents indicated they have participated in at least one Idaho Power energy efficiency program. Of the large commercial and industrial survey respondents who have participated in at least one Idaho Power energy efficiency program, 97% are “very” or “somewhat” satisfied with the program.

Based on surveys conducted in 2020, 61% of the business respondents in *the J.D. Power and Associates 2020 Electric Utility Business Customer Satisfaction Study* indicated they were aware of Idaho Power's energy efficiency programs, and on an overall basis, those customers were slightly more satisfied with Idaho Power than customers who are unaware of the programs.

## Training and Education

In 2020, Idaho Power engineers, program staff, field representatives, and hired consultants continued to provide technical training and education to help customers learn how to identify opportunities to improve energy efficiency in their facilities. The company has found that these activities increase awareness and participation in its energy efficiency and demand response programs and enhance customer program satisfaction. To market this service and distribute the training schedule and resources, Idaho Power used its website and *Energy@Work* newsletter.

In 2020, the company also began using a more unified approach to send emails informing customers of training opportunities. In place of asking each key account energy advisor to send the training announcements to their customers, the marketing specialist sent the training emails. The emails still appeared as if they were coming from the individual energy advisor but were sent from a central location. This resulted in emails that were more consistent looking and made tracking data on who received and opened the emails easier.

During each training session, the large commercial and industrial technical consultant gave an overview of the commercial and industrial programs available to customers.

As part of this outreach activity, Idaho Power collaborated with and supported stakeholders and organizations such as: IDL, BOMA, US Green Building Council (USGBC), and the American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE). Using Idaho Power funding, the IDL performed several tasks aimed at increasing the energy efficiency knowledge of architects, engineers, trade allies, and customers. Specific activities included sponsoring a BSUG, conducting Lunch & Learn sessions held at various design and engineering firms, and offering the ERL.

Idaho Power delivered five equivalent full-time days of technical classroom-based, live, online training sessions in 2020 at no cost to the customers over the course of 12 days. Topics included the following:

- Air Handling System Efficiency
- Energy Efficiency of Chilled Water Systems
- Owning & Operating an Efficient Cooling Tower
- Evaporative Cooling for Commercial & Industrial Facilities
- Fundamentals of Compressed Air Systems

The level of participation in 2020 remained high, with 236 individuals signing up for the class and 179 unique logins to the technical sessions. Due to the virtual nature of the course delivery due to COVID-19, in some cases there were multiple attendees at a single login location. Customer feedback indicated the average satisfaction level was 87%. Idaho Power's average cost to deliver the technical trainings in 2020 was approximately \$2,800 per class, about half the cost of in-person delivered classes in 2019.

## Field Staff Activities

Idaho Power energy advisors were able to meet on site with customers for the first two and a half months in 2020. Due to COVID-19 restrictions, energy advisors stayed in contact with their customers later in the year via phone call, email, text, Skype, and WebEx. Idaho Power used a variety of Idaho Power-developed programs, tools, and services to help customers with their energy-related questions

and challenges. The company set activity goals for its energy advisors designed to engage customers in the energy efficiency programs such as a specific number of site visits, virtual customer contacts, or projects. Additionally, program specialists and engineers worked closely with field energy advisors to leverage established customer relationships. For example, residential and commercial energy advisors distributed informational materials to trade allies and other market participants who, in turn, supported and promoted Idaho Power's energy efficiency programs.

Customers regularly ask how to get the most out of their energy dollar. Idaho Power staff has been trained to properly advise customers in the wise use of energy-specific energy efficiency measures and, when needed, can recommend where to find answers. Idaho Power is equipped with experienced engineers, technically proficient personnel, and an extensive network of nationally recognized organizations, contacts at neighboring western electrical utilities, and energy efficiency clearing houses to handle energy-related questions.



## Commercial and Industrial Energy Efficiency Program

	2020	2019
<b>Participation and Savings*</b>		
Participants (projects/kits)	928	1,470
Energy Savings (kWh)**	129,593,880	133,865,895
Demand Reduction (MW)	n/a	n/a
<b>Program Costs by Funding Source***</b>		
Idaho Energy Efficiency Rider	\$23,293,492	\$21,111,360
Oregon Energy Efficiency Rider	\$661,370	\$545,544
Idaho Power Funds	\$75,793	\$52,501
Total Program Costs—All Sources	\$24,030,655	\$21,709,405
<b>Program Levelized Costs</b>		
Utility Levelized Cost (\$/kWh)	\$0.018	\$0.013
Total Resource Levelized Cost (\$/kWh)	\$0.044	\$0.030
<b>Benefit/Cost Ratios</b>		
Utility Benefit/Cost Ratio	3.27	3.56
Total Resource Benefit/Cost Ratio	1.63	2.00

\*Metrics for each option (New Construction, Custom Projects, and Retrofits) are reported separately in the appendices and in *Supplement 1: Cost-Effectiveness*.

\*\*2019 total includes 117,223 kWh of energy savings from 12 Green Motors projects. 2020 total includes 56,012 kWh of energy savings from 10 Green Motors projects.

\*\*\*2019 and 2020 dollars include totals for New Construction, Custom Projects, and Retrofits.

### Description

Three major program options targeting different energy efficiency projects are available to commercial, industrial, governmental, schools, and small business customers in the company's Idaho and Oregon service areas: Custom Projects, New Construction, and Retrofits.

#### Custom Projects

The Custom Projects option provides incentives for energy efficiency modifications to new and existing facilities. The goal is to encourage energy savings in Idaho and Oregon service areas by helping customers implement energy efficiency upgrades. Incentives reduce customers' payback periods for custom modifications that might not be completed otherwise. The Custom Projects option also offers energy assessment services to help identify and evaluate potential energy-saving modifications or projects.

Interested customers submit a pre-approval application to Idaho Power for potential modifications identified by the customer, Idaho Power, or a third-party consultant. Idaho Power reviews each application and works with the customer and vendors to gather sufficient information to support the energy savings calculations. All lighting projects use the Idaho Power Lighting Tool to calculate the annual energy savings and to determine the incentive.

Once the project is completed, customers submit a payment application; in some cases, large, complex projects may take as long as two years or more to complete. Each project is reviewed to ensure energy savings are achieved. Idaho Power engineering staff or a third-party consultant verifies the energy savings methods and calculations. Through this verification process, the end use measure information, project photographs, and project costs are collected.



On many projects, especially the larger and more complex projects, Idaho Power or a third-party consultant conducts on-site power monitoring and data collection before and after project implementation. The measurement and verification (M&V) process helps ensure the achievement of projected energy savings. Verifying applicants' information confirms energy savings are obtained and are within program guidelines. If changes in project scope take place, Idaho Power will recalculate energy savings and incentive amounts based on the actual installed equipment and performance.

### ***New Construction***

The New Construction option enables customers in Idaho Power's Idaho and Oregon service areas to incorporate energy-efficient design features and technologies to new construction, expansion, or major remodeling projects. New construction and major renovation project design and construction process is much longer than small retrofits and often encompasses multiple calendar years. Originated in 2004, the option currently offers a menu of 33 measures and incentives for efficient lighting and controls, cooling, ventilation, building shell, controls, appliances, refrigeration, office equipment, and compressed air projects. The customer may otherwise lose savings opportunities for these types of projects.

### ***Retrofits***

The Retrofits option is Idaho Power's prescriptive measure option for existing facilities. This part of the program encourages customers in Idaho and Oregon to implement energy efficiency upgrades by offering incentives on a defined list of measures. Eligible measures cover a variety of energy-saving opportunities in lighting, HVAC, building shell, food service equipment, and other commercial measures. Customers can also apply for non-standard lighting incentives. A complete list of the measures offered through Retrofits is included in *Supplement 1: Cost-Effectiveness*.

### **Program Activities**

Idaho Power has found providing facility energy assessments, customer technical training, and education services are key to encouraging customers to consider energy efficiency modifications. The 2020 activities not already described in the Commercial and Industrial Sector Overview are below.

### ***Custom Projects***

Incentive levels for the non-lighting projects remained the same in 2020, at 18 cents per kWh of first year savings, up to 70% of the project cost. In 2020, the company added a new energy management incentive of \$0.025/kWh saved up to 100% of the eligible costs.

The energy management incentive was added for a variety of reasons. Compared to capital investment projects related to energy efficiency, energy management projects:

- tend to have a shorter measure life and a much lower cost.
- involve O&M changes that save energy without interrupting the customer's service or product.
- generate cost-effective energy savings from measures rooted in low-cost or no-cost O&M improvements.

Idaho Power designed a new custom offering in 2020 for conducting leak assessments and fixing underground water leaks, which covers \$1,000 per five miles of pipe for a third-party leak assessment and offers a custom incentive of \$0.18/kWh saved up to 70% of the eligible cost to repair the leaks found with a leak assessment for eligible underground pipes.

Idaho Power funds the cost of engineering services, up to \$4,500, for conducting energy scoping assessments to encourage its larger customers to adopt energy efficiency improvements. Idaho Power contracted with five firms to provide scoping assessments and general energy efficiency engineering support services.

The Custom Projects option had a successful year with a total of 169 completed projects, 22 of which were in Oregon. Custom Projects achieved energy savings of 94,007 MWh (Table 16). Energy savings increased in 2020 by 33% over 2019. Idaho Power also received 95 new applications representing a potential of 19,310 MWh of savings on future projects.

**Table 16. Custom Projects annual energy savings by primary option measure, 2020**

Option Summary by Measure	Number of Projects	kWh Saved
Compressed Air .....	9	1,083,535
Controls.....	5	641,988
Energy Management.....	11	2,202,821
Fans .....	3	876,224
HVAC .....	4	1,471,836
Lighting .....	89	12,566,042
Motors.....	1	1,895,391
Other .....	2	9,068,218
Pump.....	12	1,815,041
Refrigeration.....	18	30,168,378
VFD.....	15	32,217,243
<b>Total*</b> .....	<b>169</b>	<b>94,006,717</b>

\*Does not include Green Motor Initiative project counts and savings.

Custom Projects engineers and the key account energy advisors visited large-commercial and industrial customers to conduct initial facility walk-throughs, commercial/industrial efficiency program informational sessions, and training on specific technical energy saving opportunities. These started as face-to-face interactions, though virtual/remote capabilities were developed and implemented when health or safety restrictions were necessary. Idaho Power also provided sponsorship for the 2020 Idaho Rural Water Conference (in person) and the 2020 ASHRAE Technical Conference (virtual). Custom Projects engineers gave presentations on Idaho Power programs and offerings at the Cohort for Schools Mid-term and Final Workshops (virtual), Water Cohort Workshops (in person and virtual), and the Eastern Oregon Operators Conference (virtual).

In 2020, Idaho Power contractors completed 11 scoping assessments on behalf of Idaho Power customers. These assessments identified over 6,000 MWh of savings potential and will be used to promote future projects.

### Cohorts and Offerings

The Municipal Water Supply Optimization Cohort (MWSOC), Wastewater Energy Efficiency Cohort (WWEEC), the Eastern Idaho Water Cohort (EIWC) and Continuous Energy Improvement (CEI) Cohort for Schools program offerings are also driving a significant number of new projects in addition to increasing vendor engagement from the Streamlined Custom Efficiency (SCE) offering. Capital projects promoted or identified in strategic energy management offerings are reported and incentivized through other Idaho Power C&I programs, not as a cohort savings number. Each offering is described below.

#### *Municipal Water Supply Optimization Cohort*

The MWSOC began in January 2016. The goal of the cohort was to equip water professionals with the skills necessary to independently identify and implement energy efficiency opportunities that produce long-term energy and cost savings.

Third-year incentives and savings totaled \$7,484 and 806,401 kWh /year with all incentives paid at 70% of the eligible cost. Third-year incentives were processed, and savings were reported in 2020.

Idaho Power continued the cohort for 11 of the original 15 participants and offered two continuation workshops in 2020. Idaho Power's contractor minimally contacted participants to check on project progress and opportunities and to address energy model data updates. Custom Projects engineers conducted multiple informational meetings for civil engineers (in person and virtual) who specialize in water and wastewater designs to educate them on the C&I Energy Efficiency Program, the assessment process, energy efficiency opportunities, and available tools and resources to help find energy efficiency projects.

### *Wastewater Energy Efficiency Cohort*

In January 2014, Custom Projects launched WWEEC, a two-year cohort training approach and incentives for low- or no-cost energy improvements for 11 municipal wastewater facilities in Idaho Power's service area. In 2016, Idaho Power decided to extend the WWEEC to further engage customers. Seven of the 11 original participants are engaged in the WWEEC Continuation with many of the original participants starting major construction projects in years two and three of WWEEC.

Fifth-year incentives and savings were processed and reported in 2020, totaling \$1,904 and 701,335 kWh/yr with incentives capped at 70%. In the fifth year, the consultant contacted participants to check on progress, discuss opportunities, and to address energy model data updates.

### *Continuous Energy Improvement Cohort for Schools*

The goal of this cohort is to equip school district personnel with hands on training and guidance to help them get the most out of their systems while reducing energy consumption. The third program year of the Cohort for Schools ran from June 2019 through March 2020. Five school districts of the original nine continued to implement CEI concepts and planned activities for the cohort. In October of 2019, five new school districts began participating. These districts developed their energy teams, built initial facility energy models, and went through training on various aspects of CEI and energy efficiency.

Energy savings for the original five participants were evaluated from June 2019 through March 2020 and from October 2019 through March 2020 for the five new participants. Activities were planned through May 2020 to complete a full 12-month cycle for the original five participants, however, COVID-19 restrictions caused anomalous operations starting around April 2020 and program year three was therefore concluded. The cohort is implemented by a third-party consultant that provided final savings reports for third-party energy savings, but due to the timing of receiving the report, these savings will be claimed in 2021.

Third-year activities commenced in fall 2019, concluding at the end of March 2020. Three of the five new school districts withdrew from the cohort at the end of program year three due to challenges associated with COVID-19. The remaining seven continued through 2020. Of those seven, five districts are now modeling all schools in their district. One district added four new facilities to the cohort, one added two new facilities, and another added one new facility in program year three.

Activities in 2020 included managing a register of energy efficiency opportunities for each facility detailing low-cost and no-cost opportunities to reduce energy consumption. The consultant worked with each participant to complete as many identified opportunities as possible. Afterward, the consultant checked in monthly by phone to review opportunity register items and to discuss current activities. Additionally, Idaho Power completed scoping assessments for each new facility to identify capital project opportunities to aid the strategic capital planning process. Idaho Power provided program and incentive information, both in hard copy and electronically, along with many other energy-saving resources pertinent to school facilities.

A virtual mid-term workshop was held January 14, 2021, where school districts reported their results through the end of 2020.

Fourth-year activities will continue until May 31, 2021. Idaho Power will then review final M&V reports to establish energy savings and eligible costs for the fourth-year activities and will distribute the corresponding incentives to participating school districts.

### *Streamlined Custom Efficiency*

Started in 2013, the SCE offering continues to keep vendor engagement high, targeting projects that may have typically been too small to participate in the Custom Projects option. Currently, the SCE offering provides custom incentives for refrigeration controllers for walk in coolers, process-related variable frequency drives (VFD), and other small, vendor-based projects that do not qualify for prescriptive incentives.

Idaho Power contracted with a third party to manage SCE data collection and analysis for each project. In 2020, the SCE offering processed 20 projects totaling 3,490,011 kWh of savings and \$523,242 in incentives.

### *Eastern Idaho Water Cohort*

The Eastern Idaho Water Cohort began in January 2018 with the goal to offer the MWOSC to the eastern part of Idaho Power's service area. This was accomplished in collaboration with Rocky Mountain Power and BPA to deliver joint workshops for customers located in eastern Idaho. Two Idaho Power customers participated. Second-year incentives were processed, and savings were reported in 2020 totaling \$8,990 and 695,084 kWh/yr. In the second year of the offering, Idaho Power's contractor contacted participants to check on project progress and opportunities and to address energy model data updates. Idaho Power authorized a continuation for both customers and a draft of the third-year energy savings report is expected in 2021.

### **Green Motors Initiative**

Idaho Power participates in the Green Motors Practices Group's (GMPG) GMI. Under the GMI, service center personnel are trained and certified to repair and rewind motors in an effort to improve reliability and efficiency. If a rewind returns a motor to its original efficiency, the process is called a "Green Rewind." By rewinding a motor under this initiative, customers may save up to 40% of the cost of a new motor. The GMI is available to Idaho Power's agricultural, commercial, and industrial customers.

Currently, nine motor service centers have signed on as GMPG members in Idaho Power's service area. Under the initiative, Idaho Power pays service centers \$2 per horsepower (hp) for each National Electrical Manufacturers Association (NEMA)-rated motor up to 5,000 hp that received a verified Green Rewind. Half of that incentive is passed on to the customer as a credit on their rewind invoice. The GMPG requires all member service centers to sign and adhere to the GMPG Annual Member Commitment Quality Assurance agreement. The GMPG is responsible for verifying QA.

In 2020, a total of 10 C&I customers' motors were rewound, and the savings for the Green Rewinds is 56,012 kWh.

### **New Construction**

In 2020, 119 projects were completed, resulting in 14,565,936 kWh in energy savings in Idaho and Oregon. New Construction had a 29% reduction in total projects and a 29% reduction in total savings compared to 2019.

Maintaining a consistent offering is important for large projects with long construction periods; however, changes are made to enhance customers' choices or to meet new code changes. Idaho Power

tries to keep the New Construction option consistent by making changes approximately every other year. The company began an internal review of the New Construction measures in 2020 and will update the program offerings in 2021. The TRM has been updated to include 2018 IECC information and will be finalized in 2021.

In addition to the customer incentive, a PAI is available to architects and/or engineers for supporting technical aspects and documentation of a project. On September 23, 2020, Idaho Power increased the eligible PAI incentive from 10% to 20% of the participant's total incentive, and correspondingly increased the PAI maximum from \$2,500 to \$5,000 per application.

The company believes the increase in PAI will increase engagement with architects and engineers and will be most beneficial to small and medium businesses as they prepare project documentation. These customers typically do not have staff with a technical background in construction which makes completing applications and submitting documentation a challenge. The previous PAI may not have been at a competitive rate for an architect or engineer to allocate his/her time to provide required program documentation for small energy savings projects. The company will study the impacts on customer participation and satisfaction with the increased PAI approximately one year after implementation. This timeframe provides sufficient lead time to promote the incentive increase for new construction projects. In 2020, 40 projects received the PAI compared to 65 projects in 2019. Idaho Power representatives did not make in-person visits to architectural and engineering firms in Boise in 2020 due to COVID-19 restrictions, but continued discussions via phone and email. These conversations are intended to build relationships with the local design community and to discuss Idaho Power's C&I Energy Efficiency Program.

The New Construction option continued random post-project verifications on 10% of projects completed in 2020. The University of Idaho's IDL did not complete on-site post-project verifications in 2020, but rather completed desk reviews of all documentation on 13 of the 119 projects—over 10% of the total completed. The purpose of the verifications is to confirm program guidelines and requirements are adequate to ensure the supporting final project documentation provided aligns with field installation. Only minor discrepancies were identified in verified projects in 2020. See *Supplement 2: Evaluation* for the complete IDL report.

The impact evaluation from 2019 had a recommendation to: “Utilize [Hours of Use] HOU's from the TRM for lighting and HVAC projects started after the TRM was implemented,” and “Also, the sources for the TRM's data are clearly cited and can be traced back to original research.” Idaho Power program staff will address this by including additional transparency and clarification in the new 2021 TRM and an updated hours of operation table for HVAC and lighting.

### **Retrofits**

The Retrofits option achieved 20,965 MWh of energy savings in 2020, representing 630 projects. Once again, lighting retrofits comprised most of the energy savings and projects.

At the beginning of 2020, Idaho Power assessed ways to optimize local contractor and supplier participation in Retrofits and determined to convene a small focus group of contractors and suppliers to discuss their program participation experience. Idaho Power program staff also brainstormed ideas that might be helpful to optimize contractor/supplier involvement.

Because contractors and suppliers were focused on their businesses and the new safety and health protocols related to the pandemic, the focus group idea was not viable. Instead, Retrofits program staff chose to implement two tactics to help enhance program participant experience. One tactic was to increase outreach to participating contractors and suppliers. Though contractor outreach and the offer of support is something program staff regularly does, during the pandemic, it became even more important



to increase the frequency via phone, and text to let contractors and suppliers know the Retrofits incentives remained in place and program support was available.

Idaho Power asked a few regional utilities in 2020 how they were addressing the decline in program participation and found that some were offering increased incentives for a limited time. Contractors have choices on what projects they undertake and increasing lighting incentives provided the reason some needed to put their time toward lighting retrofit projects.

In August 2020, Idaho Power rolled out its second tactic to help enhance program participation: a temporary incentive increase for Idaho customers. The timing proved to be effective, as electrical contractors had, for the most part, resumed normal operations (compared to the early months of the pandemic). The company promoted the increased incentives via email and phone calls.

Within a few weeks, participating contractors shared that the increased incentives were having the desired effect. The initial timeline was to end the increased incentives in December 2020; however, electrical suppliers experienced difficulty receiving ordered equipment due to the worldwide impacts of the pandemic. In addition, Retrofits staff proposed to continue the increased incentives as part of the regular program offering and began preparations to roll out more comprehensive lighting incentive changes in the first quarter of 2021.

The COVID-19 pandemic had an impact on performing site inspections, visiting trade allies in-person, and holding in-person workshops in 2020. Lighting and non-lighting inspectors performed virtual project inspections from mid-March to early October. Most customers were able to accommodate the virtual inspections. The few projects where virtual inspections were not possible were inspected when site visits resumed in October.

The non-lighting Retrofits savings and cost are determined by Idaho Power's TRM. In 2020, the company contracted with a third party to update its TRM; program staff will review the update and propose changes to the non-lighting measures in 2021.

Idaho Power continued its contracts with various consultants to provide ongoing program support for lighting and non-lighting reviews and inspections, as well as contractor outreach.

The impact evaluation from 2019 recommended to: "Consider requiring pictures of the motor nameplate for the connected motor to VFD measures. The application specifies that the quantity is the lesser of the VFD or connected motor hp, it does not collect the motor hp. Motors are often in difficult to access locations, so a picture of the nameplate would help verify the motor hp." Idaho Power program staff discussed this recommendation and determined not to adopt it because in many situations obtaining a motor nameplate picture could pose a safety issue.

## **Marketing Activities**

Idaho Power continued to primarily market the C&I Energy Efficiency Program as a single offering to businesses. See the Sector Overview for the company's efforts to market the C&I Energy Efficiency Program. Below are the option-specific marketing efforts for 2020.

### ***Custom Projects***

In addition to program-level marketing activities, Idaho Power continued to present large-format checks to interested Custom Projects participants and publicized these events to local media, when applicable. However, there were far fewer checks presented in-person in 2020 than in previous years due to COVID-19 restrictions. The company also released its Water Supply Cohort Success Story brochure and a new Custom Projects tips sheet focused on underground water leaks.



### ***New Construction***

Idaho Power placed an ad in the spring issue of the Idaho Associated General Contractors (IAGC) publication, *Building Idaho*. Accompanying the ad was an article promoting Idaho Power's New Construction incentives and highlighting a few recent projects.

The company also continued to place banners on select construction sites highlighting that the facility is being built or enhanced with energy efficiency in mind. A banner remained at St. Luke's McCall Medical Center throughout 2020.

### ***Retrofits***

In early 2020, Idaho Power launched an updated version of the Retrofits website to allow customers to easily find incentives by the following categories: lighting, HVAC/controls, food service equipment, building shell, and other. The company placed a pop-up on My Account in February that resulted in 3,553 views and 187 click-throughs from business customers.

The company used a paid LinkedIn ad to promote the Retrofits incentives in March. The ad targeted a variety of job titles that typically have an interest in, or input about, energy efficiency projects, including C-suite executives; engineers; architects; and sustainability, maintenance, and facilities contacts. Targeting was only available to LinkedIn users in the Boise and Pocatello areas—approximately 65,000 individuals. The ad resulted in 51,254 impressions and 413 website clicks.

Throughout the year, the company sent out emails promoting the Retrofits lighting incentives. The company's customer solutions advisors (CSA) then followed up by making personal phone calls to customers who received the email.

Having the CSAs follow up on marketing collateral helped increase interest in the lighting incentives and is a tactic the company plans to continue in 2021.

### ***Green Motors Initiative***

In 2020, Idaho Power developed and delivered postcards for participating service centers to use to collect the information (name, telephone number, pump/pole/meter number, address) needed for the customer to receive their incentive.

The company also developed a Green Motors brochure to use in place of the brochure developed by the Green Motors Practices Group. The new brochure was specific to Idaho Power customers, included a list of participating service centers, and matched the look and feel of the other C&I Energy Efficiency Program materials.



Figure 20. Green Motors brochure cover

## Cost-Effectiveness

### Custom Projects

Historically, all projects submitted through the Custom Projects option must meet cost-effectiveness requirements, which include TRC, UCT, and PCT tests from a project perspective. In 2020, Idaho Power began transitioning to the UCT as the primary cost-effectiveness test. The program requires that all costs related to the energy efficiency implementation and energy-savings calculations are gathered and submitted with the program application. Payback is calculated with and without incentives, along with the estimated dollar savings for installing energy efficiency measures. As a project progresses, any changes to the project are used to recalculate energy savings and incentives before the incentives are paid to the participant. To aid in gathering or verifying the data required to conduct cost-effectiveness and energy-savings calculations, third-party engineering firms are sometimes used to provide an assessment, or engineering M&V services available under the Custom Projects option.

The UCT and TRC ratios for the program are 3.26 and 1.61 respectively. Non-energy impacts were applied in 2020 based on an estimated per kWh value by commercial and industrial end-uses. These values were provided by a third-party as part of the 2019 impact evaluation of the New Construction and Retrofits options.

Details for the program cost effectiveness are in *Supplement 1: Cost-Effectiveness*.

### New Construction

To calculate energy savings for the New Construction option, Idaho Power verifies the incremental efficiency of each measure over a code or standard practice installation baseline. Savings are calculated through two main methods. When available, savings are calculated using actual measurement parameters, including the efficiency of the installed measure compared to code-related efficiency. Another method for calculating savings is based on industry standard assumptions, when precise

measurements are unavailable. Because the New Construction option is prescriptive and the measures are installed in new buildings, there are no baselines of previous measurable kWh usage in the building. Therefore, Idaho Power uses industry standard assumptions from the IECC to calculate the savings achieved over how the building would have used energy absent of efficiency measures.

New Construction incentives are based on a variety of methods depending on the measure type. Incentives are calculated mainly through a dollar-per-unit equation using square footage, tonnage, operating hours, or kW reduction.

Based on the current deemed savings value from the TRM, nearly all measures were cost-effective, with the exception of some A/C units and heat pump units from the TRC perspective. Idaho Power determined these measures met at least one of the cost-effectiveness exceptions outlined in OPUC Order No. 94-590. Idaho Power had received a cost-effectiveness exception on these measures when it filed changes to the program in 2018 under Advice No. 18-08.

The UCT and TRC ratios for the program are 3.40 and 2.63 respectively. Non-energy impacts were applied in 2020 based on an estimated per kWh value by commercial and industrial end-uses. These values were provided by a third-party as part of the 2019 impact evaluation of the New Construction and Retrofits options.

Complete updated measure-level details for cost-effectiveness can be found in *Supplement 1: Cost-Effectiveness*.

### **Retrofits**

For 2020, Idaho Power used most of the same savings and assumptions as were used after the program changes in 2019 for the Retrofits option. For all lighting measures, Idaho Power uses a Lighting Tool developed by Evergreen Consulting Group, LLC. An initial analysis was conducted to see if the lighting measures shown in the tool were cost-effective based on the average input of watts and hours of operation, while the actual savings for each project are calculated based on specific information regarding the existing and replacement fixture. For most non-lighting measures, deemed savings from the TRM or RTF are used to calculate the cost-effectiveness.

While all measures pass the UCT, several measures are not cost-effective from the TRC perspective. These measures include high-efficiency A/C units and heat pump units. After reviewing these measures, Idaho Power determined the measures met at least one of the cost-effectiveness exceptions outlined in OPUC Order No. 94-590. These cost-effectiveness exceptions were approved by the OPUC in Advice No. 18-08.

The UCT and TRC ratios for the program are 3.25 and 1.35 respectively. Non-energy impacts were applied in 2020 based on an estimated per kWh value by commercial and industrial end-uses. These values were provided by a third-party as part of the 2019 impact evaluation of the New Construction and Retrofits options.

Complete updated measure-level details for cost effectiveness can be found in *Supplement 1: Cost-Effectiveness*.

## **Customer Satisfaction**

### **Retrofits**

Starting in August 2020, a survey was sent to customers who had a lighting project installed by a contractor. The purpose of the survey is to evaluate the customers' satisfaction level for the contractors listed on the Retrofits website. Survey questions gathered information about how customers learned of the program and their satisfaction with the program, contractor, and equipment.

A survey invitation was sent to 113 program participants in 2020. Idaho Power received survey results from 39 respondents. Some highlights include the following:

- Nearly 49% of respondents learned of the program from a contractor, and nearly 18% learned of the program from an Idaho Power employee.
- Nearly 90% of respondents said they were “very satisfied” with the program and almost 8% of respondents indicated they were “somewhat satisfied.”
- Approximately 90% of respondents said they were “very satisfied” with the contractor they hired to install their equipment and over 5% of respondents indicated they were “somewhat satisfied.”
- Just over 87% of respondents said they were “very satisfied” with the equipment installed, with just over 5% of respondents said they were “somewhat satisfied.”

A copy of the survey results is included in *Supplement 2: Evaluation*.

## **2021 Program and Marketing Strategies**

In 2021, the three options will continue to be marketed as part of Idaho Power’s C&I Energy Efficiency Program. Below are specific program strategies that apply to the individual options of the program.

### ***Custom Projects***

In 2021, the company plans to finalize the development of an Energy Management Commercial Audit Tool and, in conjunction with engineering services, will help identify and quantify energy savings opportunities for commercial customers. Also, the company plans to develop a compressed air leak detection and repair custom offering in 2021, similar to the water leak measure launched in 2020.

Activities and coaching will continue for the water and wastewater cohort participants and the Eastern Idaho Water Cohort. Idaho Power is also investigating details related to continuation and/or expansion of the CEI Cohort for Schools offering beyond the year-three completion scheduled for summer of 2022 and the wastewater cohort participants that have fulfilled their commitment.

Idaho Power will continue to provide:

- In-person, virtual or remote site visits and energy scoping assessments by Custom Projects engineers to identify projects and energy savings opportunities as conditions allow.
- Funding for detailed energy assessments for larger, complex projects. Virtual and/or remote assessments can also be offered in many cases.
- M&V of larger, complex projects. Virtual and/or remote M&V can also be utilized as conditions allow.
- Technical training for customers, virtually presented or in person as conditions allow.

### ***New Construction***

Idaho Power will continue to perform random post project verifications on a minimum of 10% of completed projects, sponsor technical training through the IDL to address the energy efficiency education needs of design professionals throughout the Idaho Power service area, and build relationships with local design professionals and organizations. The TRM reflective of the 2018 IECC will be finalized in 2021, and Idaho Power will finalize the list of measures offered for a program update in 2021.

### ***Retrofits***

Idaho Power will implement lighting measure changes identified in 2020 and non-lighting measure changes in the updated TRM.

## Commercial Energy-Saving Kits

	2020	2019
<b>Participation and Savings</b>		
Participants (sites)	1,379	2,629
Energy Savings (kWh)	258,368	569,594
Demand Reduction (MW)	n/a	n/a
<b>Program Costs by Funding Source</b>		
Idaho Energy Efficiency Rider	\$97,645	\$154,632
Oregon Energy Efficiency Rider	\$5,678	\$7,312
Idaho Power Funds	\$355	\$0
Total Program Costs—All Sources	\$103,678	\$161,945
<b>Program Levelized Costs</b>		
Utility Levelized Cost (\$/kWh)	\$0.047	\$0.029
Total Resource Levelized Cost (\$/kWh)	\$0.047	\$0.029
<b>Benefit/Cost Ratios</b>		
Utility Benefit/Cost Ratio	1.24	1.57
Total Resource Benefit/Cost Ratio	2.38	2.52

### Description

The Commercial Energy-Saving Kit (Commercial ESK) program is offered to commercial business customers in Idaho and Oregon. Three industry-specific types are available for restaurants, retailers, and offices (Table 17)—and each contains installation instructions and a variety of items intended to help save energy related to lighting, hot water use, and intermittently used electrical devices. Idaho Power uses a third-party vendor for kit assembly and mailing. The vendor sends the kit through the mail directly to the customer on the company's behalf.

**Table 17. Industry-specific Commercial ESK contents**

Restaurant	Retail	Office
(3) 9-watt LED Lightbulbs	(2) 9-watt LED Lightbulbs	(2) 9-watt LED Lightbulbs
(2) Bathroom Aerator 1.0 gpm	(2) 8-watt LED BR30	(2) Bathroom Aerator 1.0 gpm
(2) Kitchen Aerator 1.5 gpm	(1) Bathroom Aerator 1.0 gpm	(1) Kitchen Aerator 1.5 gpm
(2) Exit Sign Retrofit	(2) Exit Sign Retrofit	(2) Exit Sign Retrofit
(1) Pre-rinse Spray Valve		(1) Advanced Power Strip

The vendor also batch-ships kits to area Idaho Power offices for distribution by its energy advisors. An energy advisor may then deliver a Commercial ESK while visiting a small business customer and use it as an introduction to the benefits of the other commercial energy efficiency programs offered by the company.

### Program Activities

The vendor made no batch shipments in 2020, and Idaho Power conducted no in-person customer visits as of March 2020, because of COVID-19 restrictions. However, Idaho Power continued to offer

Commercial ESKs, with a primary focus on small business customers. Nearly all the kits were distributed by mail in 2020.

Idaho Power distributed 1,379 kits (Table 18), 97% of which were distributed after a customer made a request through the website or spoke with a company representative on the phone.

**Table 18. Energy savings by type and number of Commercial ESKs distributed**

State	Kit Type	Total Distributed	kWh Savings
Idaho	Restaurant	187	48,369
	Retail	227	54,394
	Office	887	140,607
Oregon	Restaurant	19	4,915
	Retail	9	2,157
	Office	50	7,926

## Marketing Activities

Idaho Power promoted the Commercial ESKs using LinkedIn posts in May and December. A LinkedIn ad was planned for May but did not run due to technical difficulties with the LinkedIn advertising platform.

The company tried a new tactic by displaying a pop-up ad to small business customers who logged into My Account. The pop-up generated over 250 kit requests throughout an eight-week campaign that ran in June and July. Customers signing into My Account clicked on the pop up and requested a kit through the online order form. The form generated an email that was sent directly to the program specialist, who fulfilled the order.

A Retail Kit campaign launched in June with the goal of increased retail kit distribution. The program specialist created lists of retail customers sorted by the standard industrial classification code and region. The campaign asked energy advisors to call retail customers, preferably customers they had not had prior contact with. The energy advisors discussed energy efficiency program offerings and offered to ship a kit directly to the customer. The feedback received was positive, and the retail customers seem to appreciate the proactive approach and receiving the no-cost energy-efficient items.

Idaho Power launched a duplicate effort in August aimed at the restaurant industry. Some of the feedback from energy advisors included: it was harder to get ahold of customers; some were not interested; and many restaurants were operating in a difficult business climate. The restaurant industry saw significant uncertainty in 2020, as COVID-19-related restrictions impacted its bottom-line. The company's campaign did increase participation from the restaurant industry but potentially on a more limited scale than participation would have otherwise increased without COVID-19 challenges faced by restaurants.

## Cost Effectiveness

Because no deemed savings values exist for the Commercial ESK program, Idaho Power made several assumptions for each kit. When the offering launched in mid-2018, the installation rates of the items in the kit was unknown. Idaho Power estimated the installation rates based on professional judgement. A follow-up survey was sent to active participants in November 2020 with an added question regarding fuel type to determine the percentage of electric water heaters. When the kits are distributed, the water heating fuel source is often unknown. Initially, Idaho Power assumed 40% of kits are distributed to businesses with electric water heat. In 2020, Idaho Power adjusted the electric water heat assumption



based on information from the 2018 potential study. Idaho Power will update this assumption in 2021 based on the follow up survey sent to customers in 2020.

For the LEDs and aerators, savings vary by kit type based on the average annual HOU and annual gallons of water used by business type. Savings for the pre-rinse spray valve in the restaurant kit is from the RTF; it is adjusted based on an assumed installation rate and discounted based on the electric water heat assumption.

For more information about the cost effectiveness savings and assumptions, see *Supplement 1: Cost-Effectiveness*.

## Customer Satisfaction

In November 2020, a follow-up survey was sent to past participants. The purpose of the survey was to obtain information on the customer's water heater fuel type as well as determine if the customer had installed any of the items in the kit.

The survey was sent to 3,723 kit recipients. Idaho Power received survey results from 312 respondents. Some highlights include the following:

- The office survey was sent to 2,880 participants, with 250 respondents completing the survey. The restaurant survey was sent to 499 participants, with 37 respondents completing the survey. The retail survey was sent to 344 participants, with 25 respondents completing the survey.
- When asked what best described the water heating source at their business, almost 61% of office kit respondents, approximately 54% of restaurant kit respondents, and 60% of retail kit respondents indicated they had electric water heat.
- Of those that received an office kit, over 89% indicated they installed both LEDs in their business. Almost 94% of respondents installed the power strip.
- Of those that received a restaurant kit, over 90% said they installed all three LEDs in their business, and almost 73% installed the pre-rinse spray valve.
- Of those that received a retail kit, over 84% indicated they installed both LEDs in their business while over 60% installed both BR30 reflector LEDs.

A copy of the survey results is included in *Supplement 2: Evaluation*.

## 2021 Program and Marketing Strategies

In 2021, Idaho Power will continue working with the third-party vendor for Commercial ESK distribution to small business customers. The marketing activities will include a LinkedIn post and an online pop up during the My Account login. Additionally, a kit will be included as one of the welcome offerings when Idaho Power calls new business customers, and the online order form will remain available through the company's website.

## Flex Peak Program

	2020	2019
<b>Participation and Savings</b>		
Participants (sites)	141	145
Energy Savings (kWh)	n/a	n/a
Demand Reduction (MW)	24	31
<b>Program Costs by Funding Source</b>		
Idaho Energy Efficiency Rider	\$84,716	\$75,306
Oregon Energy Efficiency Rider	\$207,707	\$256,606
Idaho Power Funds	\$250,056	\$294,911
Total Program Costs—All Sources	\$542,480	\$626,823
<b>Program Levelized Costs</b>		
Utility Levelized Cost (\$/kWh)	n/a	n/a
Total Resource Levelized Cost (\$/kWh)	n/a	n/a
<b>Benefit/Cost Ratios</b>		
Utility Benefit/Cost Ratio	n/a	n/a
Total Resource Benefit/Cost Ratio	n/a	n/a

### Description

The Flex Peak Program is a voluntary program where participants are eligible to earn a financial incentive for reducing load. The program is available to Idaho and Oregon commercial and industrial customers with the objective to reduce the demand on Idaho Power's system during periods of extreme peak electricity use.

These are the program event guidelines:

- June 15 to August 15 (excluding weekends and July 4)
- Up to four hours per day between 2:00 p.m. and 8:00 p.m.
- Up to 15 hours per week
- No more than 60 hours per season
- At least three events per season

Customers with the ability to offer load reduction of at least 20 kW are eligible to enroll in the program. The 20-kW threshold allows a broad range of customers to participate in the program. Participants receive notification of a load reduction event two hours before the start of the event.

The program originated in 2009 as the FlexPeak Management program managed by a third-party contractor. In 2015, Idaho Power took over full administration and changed the name to Flex Peak Program. The IPUC issued Order No. 33292 on May 7, 2015, while the OPUC approved Advice No. 15 03 on May 1, 2015, authorizing Idaho Power to implement an internally managed Flex Peak Program (Schedule No. 82 in Idaho and Schedule No. 76 in Oregon) and to continue recovering its demand response program costs in the previous manner.

### Program Activities

In 2020, 62 participants enrolled 141 sites in the program. Existing customers were automatically re-enrolled in the program. Participants had a committed load reduction of 35.8 MW in the first week of the

program and ended the season with an amount of 35.94 MW. The maximum available capacity of the program came from a nominated amount mid-season of 36.05 MW. In past years, certain events have achieved higher than a 100% realization rate, which would make this the maximum potential capacity for the program.

This weekly commitment, or nomination, was comprised of all 141 sites. The maximum realization rate during the season was 68%, and the average for the three events was 65%. The realization rate is the percentage of load reduction achieved versus the amount of load reduction committed for an event. The highest hourly load reduction achieved was 24.2 MW (at generation level) during the July 16 event (Table 19). The program had lower costs in 2020 over 2019 because of the slightly decreased enrolled capacity and because the actual reduction was lower in 2020 when events were called.

**Table 19. Flex Peak Program demand response event details**

Event Details	Thursday, July 16	Thursday, July 30	Wednesday, August 5
Event time	4–8 p.m.	4–8 p.m.	4–8 p.m.
Average temperature	93°F	102°F	93°F
Maximum load reduction (MW)	24.2	23	23.9

Event performance and realization rates for the 2020 season were significantly reduced due to the impact of COVID-19 on customer operations and their ability to reduce load. Typically, the program achieves a realization rate of 85% or greater. This year, many customers did not reduce energy use during program events because they were trying to increase production and recoup revenue after having been shut down for several months prior to the program season.

Also, many big box stores and HVAC-dependent businesses were not able to curtail load due to the need to increase the fresh air flow from outside. For example, Idaho Power Corporate Headquarters (CHQ) used more energy than normal all summer to cool the additional hot air brought in from the outside. Based on studies from the Peak Load Management Alliance, COVID-19 mitigation efforts significantly impaired commercial and industrial demand response on a national scale.

## Marketing Activities

Though the terms of IPUC Order No. 32923 and OPUC Order No. 13-482 do not require program marketing, Idaho Power energy advisors regularly communicated with interested customers and current participants and encouraged them to enroll new sites. The company also continued to include the Flex Peak Program in its C&I Energy Efficiency Program collateral. Additional details can be found in the Commercial/Industrial Sector Overview.

## Cost-Effectiveness

Idaho Power determines cost-effectiveness for its demand response program under the terms of IPUC Order No. 32923 and OPUC Order No. 13 482. Under the terms of the orders and the settlement, all Idaho Power's demand response programs were cost-effective for 2020.

The Flex Peak Program was dispatched for 12 event hours and achieved a maximum reduction of 24.2 MW. The total cost of the program in 2020 was \$542,480. Had the Flex Peak Program been used for the full 60 hours, the cost would have been approximately \$765,480.

A complete description of Idaho Power cost-effectiveness of its demand response programs is included in *Supplement 1: Cost-Effectiveness*.

## Evaluations

As required each year by IPUC and OPUC, Idaho Power conducted an internal evaluation of the program's potential load reduction impacts. The goal of the review was to calculate the load reduction in MW for the program. The analysis also verified load reduction per site and per event. A copy of the results of this study is in *Supplement 2: Evaluation*.

## 2021 Program and Marketing Strategies

The company will continue to communicate the value proposition with enrolled customers and the importance of active participation when events are called. Idaho Power will meet with existing participants during the off-season to discuss past-season performance and upcoming season details.

For the upcoming season, Idaho Power plans to focus on retaining currently enrolled participants and will consider using a My Account pop up to increase program awareness and enrollment. The program will also continue to be marketed along with the C&I Energy Efficiency Program.

The program specialist has already started working with potential candidates for the 2021 season with a focus on enrolling national chain stores within the Idaho Power service area. This customer type makes a good candidate for the program because of their extended operating hours, non-production load types, building automation controls, and consistent energy-use profiles. However, due to COVID-19, these stores may still have similar challenges with participation due to air flow as they did in 2020.

## Oregon Commercial Audits

	2020	2019
<b>Participation and Savings</b>		
Participants (audits)	2	11
Energy Savings (kWh)	n/a	n/a
Demand Reduction (MW)	n/a	n/a
<b>Program Costs by Funding Source</b>		
Idaho Energy Efficiency Rider	\$0	\$0
Oregon Energy Efficiency Rider	\$1,374	\$7,262
Idaho Power Funds	\$	\$0
Total Program Costs—All Sources	\$1,374	\$7,262
<b>Program Levelized Costs</b>		
Utility Levelized Cost (\$/kWh)	n/a	n/a
Total Resource Levelized Cost (\$/kWh)	n/a	n/a
<b>Benefit/Cost Ratios</b>		
Utility Benefit/Cost Ratio	n/a	n/a
Total Resource Benefit/Cost Ratio	n/a	n/a

### Description

Oregon Commercial Audits identifies opportunities for all Oregon commercial and industrial building owners, governmental agencies, schools, and small businesses to achieve energy savings. Initiated in 1983, this statutory required program (ORS 469.865) is offered under Oregon Tariff Schedule No. 82.

Through this program, Idaho Power provides free energy audits, evaluations, and educational products to customers through a third-party contractor. During the audits, the contractor inspects the building shell, HVAC equipment, lighting systems, and operating schedules, if available, and reviews past billing data. These visits provide a venue for the contractor to discuss available incentives and specific business operating practices for energy savings. The contractor may also distribute energy efficiency program information and remind customers that Idaho Power personnel can offer additional energy-savings tips and information. Business owners can decide to change operating practices or make capital improvements designed to use energy wisely.

### Program Activities

Idaho Power's contractor and personnel were available to assist customers and two customers requested and received audits by the contractor at the start of 2020. COVID-19 restrictions had a significant impact on this program in 2020, as in-person site visits were suspended between March 16 and November 16.

### Marketing Activities

Idaho Power sent its annual direct-mailing to 1,566 Oregon commercial customers in September to explain the program's no-cost or low-cost energy audits and the available incentives and resources.

**Cost-Effectiveness**

As previously stated, the Oregon Commercial Audits program is a statutory program offered under Oregon Schedule 82, the Commercial Energy Conservation Services Program. Because the required parameters of the Oregon Commercial Audit program are specified in Oregon Schedule 82 and the company abides by these specifications, this program is deemed to be cost-effective. Idaho Power claims no energy savings from this program.

**2021 Program and Marketing Strategies**

Idaho Power does not expect to make any operational changes in 2021.

The company will continue to market the program through the annual customer notification and will consider additional opportunities to promote the program to eligible customers via its energy advisors.



## Small Business Direct Install

	2020	2019
<b>Participation and Savings</b>		
Participants (audits)	139	n/a
Energy Savings (kWh)	780,260	n/a
Demand Reduction (MW)	n/a	n/a
<b>Program Costs by Funding Source</b>		
Idaho Energy Efficiency Rider	\$322,463	n/a
Oregon Energy Efficiency Rider*	\$16,981	n/a
Idaho Power Funds	\$386	n/a
Total Program Costs—All Sources	\$339,830	n/a
<b>Program Levelized Costs</b>		
Utility Levelized Cost (\$/kWh)	\$0.058	n/a
Total Resource Levelized Cost (\$/kWh)	\$0.058	n/a
<b>Benefit/Cost Ratios</b>		
Utility Benefit/Cost Ratio	1.04	n/a
Total Resource Benefit/Cost Ratio	1.61	n/a

\* Idaho activity of \$15.9K charged to the Oregon Rider was reversed and charged to the Idaho rider in the first quarter of 2021.

### Description

Idaho Power launched a SBDI program in November 2019 targeting typically hard-to-reach small business customers. SBDI is implemented by a third-party contractor. Idaho Power pays 100% of the cost to install eligible lighting measures for customers who use 25,000 kWh annually or less. SBDI is offered to eligible customers in a strategic geo-targeted approach.

### Program Activities

In 2020, the company rolled out SBDI to customers in eastern Idaho. Three cities were targeted for the soft launch: Aberdeen, American Falls and Blackfoot. Direct-mail letters were sent to customers informing them of their eligibility to participate in the program. Follow-up calls were made to customers who received letters, offering another opportunity to hear about the program and to declare their interest in participating.

As customers responded to the letters and follow-up calls, lighting assessments were scheduled. Customers who agreed to have LEDs installed at their facility were scheduled for project installation beginning in January.

Customer interest in SBDI was on the rise when the COVID-19 pandemic occurred. Idaho Power suspended on-site customer activity for the SBDI program offering mid-March and removed the suspension early in October 2020, with on-site activity adhering to COVID-19 safety protocols. When on-site activity resumed in the fall, the company's third-party program implementer worked to reinstate equipment installers and reconnect with eligible customers who had signed up for a lighting assessment or project installation prior to COVID-19 restrictions.

There were 139 project installations performed in 2020, along with 11 post-installation inspections.

## Marketing Activities

Idaho Power sent letters to 103 business customers in American Falls in January, 323 Blackfoot customers in February, 398 Blackfoot customers in March, and an additional 184 Blackfoot customers in December. The program contractor followed up with a phone call to customers about a week after they received the letter.

When on-site work was suspended due to COVID-19, the contractor reached out to the customers who were in the process to let them know the company would not be able to complete the project at that time. In August, the company sent an email to the customers who were waiting for the SBDI program to restart to let them know the on-site work remained suspended. Those customers received an email in October informing them the program had restarted, and they would receive a call from the contractor soon.

As a follow-up to the direct mail letters, over 1,000 outbound calls were placed to eligible customers, resulting in 207 scheduled lighting assessments during 2020.

## Cost-Effectiveness

In 2020, the projects in the SBDI program were all lighting upgrades. Idaho Power's third-party contractor calculates the savings based on the existing fixture wattage, the replacement fixture wattage, and the HOU. The UCT and TRC ratios for the program are 1.04 and 1.61 respectively. Non-energy impacts were applied in 2020 based on an estimated per kWh value by commercial and industrial end-uses. These values were provided by a third-party as part of the 2019 impact evaluation of the New Construction and Retrofits options.

Details for the program cost effectiveness are in *Supplement 1: Cost-Effectiveness*.

## Customer Satisfaction

Idaho Power's third-party program implementer sent 96 customer satisfaction surveys to program participants in 2020, of which 27 surveys were returned. Key highlights include the following:

- Nearly 89% of respondents said they were “very satisfied” with the program, and over 7% of respondents indicated they were “somewhat satisfied.”
- All respondents reported they were “very satisfied” with the equipment installed.
- All respondents found the program easy to participate in, with nearly 93% indicating the program was “very easy” and over 7% reporting it was “somewhat easy” to participate in.
- All respondents reported they would be likely to recommend the program to other small businesses, with nearly 93% saying they were “very likely” and over 7% saying they were “somewhat likely” to recommend the program.
- When asked how their opinion of Idaho Power has changed since participating in the program, just over 48% of respondents reported having a more favorable opinion of Idaho Power and nearly 52% of respondents reporting no change in opinion.

A copy of the survey results is included in *Supplement 2: Evaluation*.

## Evaluations

In 2020, Idaho Power contracted with Tetra Tech to conduct a process evaluation for the SBDI Program. However, due to limited program on-site installation activity because of COVID-19, it was decided the evaluation will be more informative if additional installations were completed. The contract will remain with Tetra Tech and the evaluation is estimated to resume in the second quarter of 2021.

**2021 Program and Marketing Strategies**

Idaho Power will continue to operate and market this program as described above. The company plans to expand the offering in its eastern region and move to the southern region mid-year 2021.

## Irrigation Sector Overview

The irrigation sector is comprised of agricultural customers operating water pumping or water delivery systems to irrigate agricultural crops or pasturage. End use electrical equipment primarily consists of agricultural irrigation pumps and center pivots. The irrigation sector does not include water pumping for non-agricultural purposes, such as the irrigation of lawns, parks, cemeteries, golf courses, or domestic water supply.

In July 2020, the active irrigation service locations totaled 20,804 system-wide, which is an increase of 1.1% compared to July of 2019. The increase is primarily caused by adding service locations for pumps and center pivot irrigation systems as land is converted from furrow and surface irrigation to sprinkler irrigation.

Irrigation customers accounted for 1,987,418 MWh of energy usage in 2020, versus 1,759,137 MWh in 2019. The approximately 13% increase is primarily due to variations in weather. This sector represented nearly 13.5% of Idaho Power's total electricity sales, and approximately 28% of July sales. As stated above, customer numbers have increased slightly over time, while the energy usage trend for this sector has not changed significantly in many years. There is, however, a substantial yearly variation in usage due primarily to the impact of weather on irrigation customer needs.

The Irrigation Efficiency Rewards program, including the Green Motor Initiative, experienced increased annual savings: from 10,118 MWh in 2019 to 12,884 MWh in 2020. This is due primarily to an increase in the number and size of the project savings of the Custom Incentive Option.

Idaho Power re-enrolled the majority of 2019 Irrigation Peak Rewards participants in 2020, with 2,292 service points and a maximum load reduction potential of 298 MW. Table 20 shows the actual load reduction was 292 MW in 2020, and summarizes the overall expenses and program performance for both programs.

**Table 20. Irrigation sector program summary, 2020**

Program	Participants	Total Cost		Savings	
		Utility	Resource	Annual Energy (kWh)	Peak Demand (MW)
<b>Demand Response</b>					
Irrigation Peak Rewards.....	2,292 service points	\$ 6,407,412	\$ 6,407,412		292
<b>Total</b> .....		<b>\$ 6,407,412</b>	<b>\$ 6,407,412</b>		<b>292</b>
<b>Energy Efficiency</b>					
Irrigation Efficiency Rewards.....	1,018 projects	\$ 3,401,673	\$16,857,055	12,847,823	
Green Motors—Irrigation .....	23 motor rewinds			36,147	
<b>Total</b> .....		<b>\$ 3,401,673</b>	<b>\$16,857,055</b>	<b>12,883,970</b>	

**Note:** See Appendix 3 for notes on methodology and column definitions.  
Totals may not add up due to rounding.

## Energy Efficiency Programs

### Irrigation Efficiency Rewards

An energy efficiency program designed to encourage customers to replace or improve inefficient irrigation systems and components. Customers receive incentives through the Custom Incentive Option for extensive retrofits and new systems and through the Menu Incentive Option for small maintenance upgrades.

## Green Motor Initiative

Idaho Power pays service centers to rewind qualified irrigation motors. Half of this incentive is then given to the customer as a credit on the rewind invoice.

## Demand Response Program

### Irrigation Peak Rewards

A program designed to reduce peak load from irrigation pumps. Participating service points are automatically controlled by Idaho Power switches or manually interrupted by the customer when switch technology is not available.

## Marketing

In 2020, the company mailed a summer edition of *Irrigation News* to all irrigation customers in its service area. In part, the newsletter educated customers about how to sign up for new or upgraded service and also promoted the Irrigation Efficiency Rewards program.

The Menu Incentive application was digitized and a tear-pad was created to make the process of distributing information and signing up for the program easier than ever.

The company also placed numerous ads in print agricultural publications to reach the target market in smaller farming communities. Publications included: *Ag Proud*, *Capital Press*, *Power County Press*, *Potato Grower Magazine*, *Owyhee Avalanche*, and *The Ag Expo East and West Programs*. Idaho Power used radio advertising to promote its presence at the Agri-Action show and to show support of Future Farmers of America and Ag Week conferences.

January through March the company ran 785 radio ads promoting the Irrigation Efficiency Rewards program. The 30-second spots ran in eastern and southern Idaho on a variety of stations, including news/talk, sports, classic rock, and country.

A tabletop display was used at irrigation-specific trade shows and highlighted specific equipment incentives. Throughout the year, social media posts promoted the company's presence at trade shows and highlighted the Irrigation Efficiency Rewards program.

## Customer Satisfaction

Idaho Power conducts the *Burke Customer Relationship Survey* each year. In 2020, 62% of irrigation survey respondents indicated Idaho Power is meeting or exceeding their needs with information on how to use energy wisely and efficiently. Seventy-one percent of respondents indicated Idaho Power is meeting or exceeding their needs by encouraging energy efficiency with its customers. Fifty-four percent of Idaho Power customers surveyed in 2020 indicated the company is meeting or exceeding their needs in offering energy efficiency programs, and 41% of the respondents indicated they have participated in at least one Idaho Power energy efficiency program. Of the irrigation survey respondents who have participated in at least one Idaho Power energy efficiency program, 91% are "very" or "somewhat" satisfied with the program.

## Training and Education

Idaho Power continued to market its irrigation programs by varying the location of workshops and offering new presentations to irrigation customers.

In 2020, prior to COVID-19 restrictions, Idaho Power provided five irrigation workshops, and participated in two additional vendor hosted workshops promoting the Irrigation Efficiency Rewards

program, due to impacts of COVID-19 restrictions this number was lower than a typical year. Approximately 225 customers attended workshops in Burley, Twin Falls, Jerome, Gooding, Caldwell, Mountain Home, and Buhl, Idaho. The company also participated in and had an exhibit at four agricultural trade shows prior to COVID-19 restrictions, the Idaho Irrigation Equipment Association Winter Show, Eastern Idaho Agriculture Expo, Western Idaho Agriculture Expo, and the Agri Action Ag Show.

### ***Field Staff Activities***

Idaho Power agricultural representatives (ag reps) were available to be on-site with customers offering Idaho Power energy efficiency and demand response program information, education, training, and irrigation system assessments and audits across the service area, for the first two and a half months in 2020. However, in March due to COVID-19 restrictions, ag reps were only able to stay in contact with their customers via phone call, email, and text. Later in the calendar year, because ag reps could be outdoors at customers' irrigation sites in a socially distanced manner, on-site work resumed adhering to COVID-19 safety protocols.

Also in 2020, agricultural representatives were still able to engage with agricultural irrigation equipment dealers with the goal of sharing expertise about energy-efficient system designs and increasing awareness about the program. However, due to COVID-19 restrictions this work was mostly through phone calls and emails. Agricultural representatives and the irrigation segment coordinator, a licensed agricultural engineer, participated in training to maintain or obtain their Certified Irrigation Designer and Certified Agricultural Irrigation Specialist accreditation sponsored by the nationally based Irrigation Association.



## Irrigation Efficiency Rewards

	2020*	2019*
<b>Participation and Savings</b>		
Participants (projects)	1,041	1,114
Energy Savings (kWh)*	12,883,970	10,118,160
Demand Reduction (MW)	n/a	n/a
<b>Program Costs by Funding Source</b>		
Idaho Energy Efficiency Rider	\$3,165,075	\$2,449,427
Oregon Energy Efficiency Rider	\$194,044	\$174,120
Idaho Power Funds	\$42,553	\$37,716
Total Program Costs—All Sources	\$3,401,673	\$2,661,263
<b>Program Levelized Costs</b>		
Utility Levelized Cost (\$/kWh)	\$0.025	\$0.031
Total Resource Levelized Cost (\$/kWh)	\$0.125	\$0.119
<b>Benefit/Cost Ratios**</b>		
Utility Benefit/Cost Ratio	4.00	2.44
Total Resource Benefit/Cost Ratio	4.09	3.13

\* 2020 total includes 36,147 kWh of energy savings from 23 Green Motors projects. 2019 total includes 44,705 kWh of energy savings from 34 Green Motors projects.

\*\* 2020 cost-effectiveness ratios include evaluation expenses. If evaluation expenses were removed from the program's cost-effectiveness, the UCT and TRC would be 4.03 and 4.09, respectively.

### Description

Initiated in 2003, the Irrigation Efficiency Rewards program encourages energy-efficient equipment use and design in irrigation systems. Qualified irrigators in Idaho Power's service area can receive financial incentives and reduce their electricity usage through participation in the program. Two options help meet the needs for major or minor changes to new or existing systems: Custom Incentive and Menu Incentive. Irrigation customers can also qualify for an incentive when they "rewind" their irrigation motors.

#### **Custom Incentive Option**

The Custom Incentive Option is offered for extensive retrofits to existing systems or the installation of an efficient, new irrigation system.

For a new system, Idaho Power determines whether the equipment is more energy efficient than standard before approving the incentive. If an existing irrigation system is changed to a new water source, this program considers it a new irrigation system. The incentive for a new system is 25 cents per annual kWh saved, not to exceed 10% of the project cost.

For existing system upgrades, the incentive is 25 cents per annual kWh saved or \$450 per kW demand reduction, whichever is greater. The incentive is limited to 75% of the total project cost.

The qualifying energy efficiency measures include any hardware changes that result in a reduction of the potential kWh use of an irrigation system or that result in a potential demand reduction. Idaho Power reviews, analyzes, and makes recommendations on each project after considering prior usage history, invoices, and, in most situations, post-installation demand data to verify savings and incentives.

### ***Menu Incentive Option***

The Menu Incentive Option covers a portion of the costs of repairing and replacing specific components that help the irrigation system use less energy. This option is designed for systems where small maintenance upgrades provide energy savings from these 11 separate measures:

- New flow-control type nozzles
- New nozzles for impact, rotating, or fixed head sprinklers
- New or rebuilt impact or rotating type sprinklers
- New or rebuilt wheel-line levelers
- New complete low-pressure pivot package (sprinkler, regulator, and nozzle)
- New drains for pivots or wheel-lines
- New riser caps and gaskets for hand lines, wheel lines, and portable main lines
- New wheel-line hubs (Thunderbird)
- New pivot gooseneck and drop tube
- Leaky pipe repair
- New center pivot base boot gasket

Payments are calculated on a predetermined kWh savings per component.

### ***Green Motors Initiative***

Idaho Power also participates in the Green Motors Practices Group's GMI. Under the initiative, Idaho Power pays service centers \$2 per hp for motors 15 to 5,000 hp that received a verified Green Rewind. Half of that incentive is passed on to irrigation customers as a credit on their rewind invoice.

### **Program Activities**

In 2020, 1,018 projects were completed as follows: 848 used the Menu Incentive Option and provided an estimated 4,015 MWh of energy savings; and 170 used the Custom Incentive Option and provided 8,832 MWh of energy savings (84 were new systems and 86 were on existing systems).

Also, a total of 23 irrigation customers' motors were rewound under the GMI and accounted for 36,147 kWh in savings.

### **Marketing Activities**

In addition to training, education, and marketing activities mentioned in the Irrigation Sector Overview, the Idaho Power agricultural representative and program specialist worked one-on-one with irrigation dealers and vendors who are key to the successful promotion of the program. Due to the COVID-19 restrictions in the early spring of 2020, some of the program workshops were cancelled.

### **Cost-Effectiveness**

Idaho Power calculates cost effectiveness using different savings and benefits assumptions and measurements under the Custom Incentive Option and the Menu Incentive Option of Irrigation Efficiency Rewards.

Each application under the Custom Incentive Option received by Idaho Power undergoes an assessment to estimate the energy savings that will be achieved through a customer's participation in the program. On existing system upgrades, Idaho Power calculates the savings of a project by determining what changes are made and comparing it to the service point's previous five years of electricity usage history on a case-by-case basis. On new system installations, the company uses standard practices as the

baseline and determines the efficiency of the applicant's proposed project. Based on the specific equipment to be installed, the company calculates the estimated post-installation energy consumption of the system. The company verifies the completion of the system design through aerial photographs, maps, and field visits to ensure the irrigation system is installed and used in the manner the applicant's documentation describes.

Each application under the Menu Incentive Option received by Idaho Power also undergoes an assessment to ensure deemed savings are appropriate and reasonable. Payments are calculated on a prescribed basis by measure. In some cases, the energy-savings estimates in the Menu Incentive Option are adjusted downward from deemed RTF savings to better reflect known information on how the components are actually being used. For example, a half-circle rotation center pivot will save half as much energy per sprinkler head as a full-circle rotation center pivot. All deemed savings are based on seasonal operating hour assumptions by region. If a system's usage history indicates it has lower operating hours than the assumptions, like the example above, the deemed savings are adjusted.

In March 2018, the RTF updated the irrigation hardware measure analysis, which resulted in a reduction of savings between 34 to 94% from the previous workbook. The major assumption driving the measure savings change in the program involves the calculation of the leakage per hardware item, which caused savings to decrease nearly 80% on average for several irrigation hardware types. Overall, the program remains cost-effective from both the UCT and TRC perspective. Two measures pass the UCT but fail the TRC while one measure, the rebuilt or new brass sprinkler, fails both the UCT and TRC. Idaho Power received a cost-effectiveness exception with Oregon under Order No. 18-476.

The company has been working with the RTF and the irrigation subcommittee to re-examine the assumptions and review the small maintenance measures under the Menu Incentive Option offered by Idaho Power and other utilities in the region. The irrigation subcommittee created a survey to be used by regional utilities to gather better information on maintenance practices of irrigation systems. The survey is meant to be a gauge of the maintenance practices of customers participating in the program versus non-participants. Idaho Power mailed the irrigation hardware survey to Idaho Power irrigation customers in February 2020 and received a 23% response rate. The results of the survey have been compiled. Review of the survey has taken place including conversations with BPA utility representatives. The RTF's next steps with the irrigation subcommittee will be determined in the first quarter of 2021.

The UCT and TRC for the program is 4.00 and 4.09 respectively. If the amount incurred for the 2020 evaluation was removed from the program's cost-effectiveness, the UCT would be 4.03 while the TRC would be 4.09.

Complete measure-level details for cost effectiveness can be found in *Supplement 1: Cost-Effectiveness*.

## Evaluations

As part of the on-going research around irrigation hardware measures, Idaho Power, in coordination with the RTF and other utilities in the region, developed a survey to gain better understanding of the hardware maintenance practices of area irrigators. Idaho Power sent surveys to 6,248 irrigators in February 2020. Key highlights from the 1,433 responses include:

- Respondents indicated that almost 84% of their acreage is irrigated with a lift greater than 200 ft.
- The most popular crops in rotation are alfalfa hay (almost 68%); barley, wheat, or other grains (over 51%); and pasture (almost 47%).
- Less than 48% of respondents replace their irrigation hardware in less than 5 years. The number of years varied by irrigation hardware measures. For pivot or linear packages, just over 38% of

respondents indicated those are replaced within 5 years. For goosenecks, just over 21% of respondents indicated those are replaced within 5 years.

- Nearly 87% of respondents indicated they do not replace their irrigation components on a predetermined schedule.

A copy of the survey results is included in *Supplement 2: Evaluation*.

In 2020, Idaho Power contracted with Tetra Tech to conduct an impact and process evaluation on the Irrigation Efficiency Rewards Program. The evaluation noted the program is well-managed with comprehensive support from a knowledgeable and responsive Idaho Power staff.

The process evaluation reviewed program materials and interviewed Idaho Power program staff and agricultural representatives as well as irrigation vendors and participants. The evaluation found that materials are professional, informative and educational. Marketing messages appear to be reaching customers. The evaluation recommended Idaho Power continue transfer of documents to an electronic filing system, create a more systematic method for reviewing vendor activity levels and continue to refine the electronic program manual in case knowledgeable staff transition away from the program.

The impact evaluation calculated a 2019 program year kWh savings realization rate of 97.4% (100% for the Menu Program and 95.4% for Custom). The evaluation recommended Idaho Power formalize data collection of irrigation operating conditions, streamline custom calculations, and increase documentation for critical system components.

Idaho Power will consider all recommendations made in the report, and any changes to the program will be reported in the *Demand-Side Management 2021 Annual Report*. See the complete analysis report in *Supplement 2: Evaluation*.

## **2021 Program and Marketing Strategies**

Irrigation Efficiency Rewards program marketing plans typically include conducting at least six customer-based irrigation workshops to promote energy efficiency, technical education, and program understanding. Though the Western Idaho Ag Expo, Agri-Action, and Idaho Irrigation Equipment Association Show & Conference are cancelled for 2021 due to COVID-19 restrictions, Idaho Power intends to participate virtually in the Eastern Idaho Ag Expo. Marketing the program to irrigation vendors will continue to be a priority.

The company will promote the program in agriculturally focused editions of newspapers, magazines, and radio ads. The radio ads will run during the spring throughout the company's southern and eastern service areas.

## Irrigation Peak Rewards

	2020	2019
<b>Participation and Savings</b>		
Participants (participants)	2,292	2,332
Energy Savings (kWh)	n/a	n/a
Demand Reduction (MW)	292	278
<b>Program Costs by Funding Source</b>		
Idaho Energy Efficiency Rider	\$264,843	\$239,523
Oregon Energy Efficiency Rider	\$185,224	\$179,733
Idaho Power Funds	\$5,957,345	\$6,352,452
Total Program Costs—All Sources	\$6,407,412	\$6,771,708
<b>Program Levelized Costs</b>		
Utility Levelized Cost (\$/kWh)	n/a	n/a
Total Resource Levelized Cost (\$/kWh)	n/a	n/a
<b>Benefit/Cost Ratios</b>		
Utility Benefit/Cost Ratio	n/a	n/a
Total Resource Benefit/Cost Ratio	n/a	n/a

### Description

Idaho Power's Irrigation Peak Rewards program is a voluntary, demand response program available to agricultural irrigation customers with metered service locations who have participated in the past. Initiated in 2004, one of the purposes of the program is to minimize or delay the need to build new supply-side resources.

The program pays irrigation customers a financial incentive to interrupt the operation of specific irrigation pumps using one or more control devices. Historically, the Irrigation Peak Rewards program provides a maximum of approximately 315 MW of load reduction, or nearly 9% of Idaho Power's all-time system peak.

The program offers two interruption options: Automatic Dispatch Option and Manual Dispatch Option. Automatic Dispatch Option pumps are controlled by an Advanced Metering Infrastructure (AMI) or a cellular device that remotely turns off the pump(s). Manual Dispatch Option pumps can participate if they have 1,000 cumulative hp or if Idaho Power has determined the AMI or cellular technology will not function properly at that location. These customers nominate a kW reduction and are compensated based on the actual load reduction during the event.

Program event guidelines for either interruption option are listed below:

- June 15 to August 15 (excluding Sundays and July 4)
- Up to four hours per day between 1 and 9 p.m.
- Up to 15 hours per week
- No more than 60 hours per season
- At least three events per season

The incentive structure consists of fixed and variable payments. The fixed incentive is \$5.00/kW with an energy credit of \$0.0076/kWh. The demand (kW) credit is calculated by multiplying the monthly billing kW by the demand-related incentive amount. The energy (kWh) credit is calculated by multiplying the

monthly billing kWh usage by the energy-related incentive amount. The incentive is applied to monthly bills, and credits are prorated for periods when reading/billing cycles do not align with the program season dates. An additional variable credit of \$0.148/kWh applies to the fourth and subsequent events that occur between 1 p.m. and 8 p.m. The variable credit is increased to \$0.198/kWh when customers allow Idaho Power to interrupt their pumps until 9 p.m.

Program rules allow customers the ability to opt out of dispatch events up to five times per service point. The first three opt outs incur a penalty of \$5 per kW, while the remaining two incur a penalty of \$1 per kW based on the current month's billing kW. The opt-out penalties may be prorated to correspond with the dates of program operation and are accomplished through manual bill adjustments. The penalties will never exceed the amount of the incentive that would have been paid with full participation.

## Program Activities

In 2020, Idaho Power enrolled 2,292 (82.6%) of the eligible service points in its service area. The total nominated reduction was 400.52 MW vs. 408.65 MW in 2019. The total maximum potential reduction (capacity) for the program was 298 MW in 2020 vs 327 MW in 2019. The key factors impacting the lower maximum capacity were decreased nominated MW, decreased participation, increased device failure, and a lower percentage of enrolled pumps running on the highest day of irrigation load. Device failure identification and correction is an on-going effort pre-season and during season which requires urgency due to the strict timeline of the program. Contracted electricians continued to make site visits, however, those site visits had a slower start and were completed at a slower pace due to adhering with COVID-19 protocols.

The company used four electrical contractors during the year to maintain and troubleshoot the AMI devices and cellular devices for dispatching. Two of the four electricians were new to the program and site work involving the program. In October 2020, an effort was made to exchange nearly 211 cell devices for AMI devices due to upgrades made to substations throughout the IPC service area. Of the 211 work orders, 179 were completed and 39 are scheduled to be completed in May 2021. The exchanges will ensure a larger data set on the same technology platform, including analysis of hourly data. The cell device does not allow for monitoring on an hourly basis. The removed cell devices were retired.

**Table 21. Irrigation Peak Rewards demand response event details**

Event Details	Wednesday, June 24	Tuesday, July 21	Friday, July 31
Event Time	2–9 p.m.	2–9 p.m.	2–9 p.m.
Temperature	95	98	104
Maximum load reduction (MW)	292	241	226

## Marketing Activities

Idaho Power used workshops, trade shows, and direct-mailings to encourage past participants to re-enroll in the program. The brochure, enrollment worksheet, and contact worksheet were mailed to all eligible participants in March 2020. See the Irrigation Sector Overview section for additional marketing activities.

## Cost-Effectiveness

Idaho Power determines cost-effectiveness for the demand response programs under the terms of IPUC Order No. 32923 and OPUC Order No. 13-482. Under the terms of the orders and the settlement, all Idaho Power's demand response programs were cost-effective for 2020.



The Irrigation Peak Rewards program was dispatched for 12 event hours and achieved a maximum demand reduction of 292 MW. The total expense for 2020 was \$6.4 million and would have been approximately \$9.4 million if the program was operated for the full 60 hours.

A complete description of cost-effectiveness results for Idaho Power’s demand response programs is included in *Supplement 1: Cost-Effectiveness*.

## Evaluations

Each year, Idaho Power produces an internal report of the Irrigation Peak Rewards program. This report includes a load-reduction analysis, cost-effectiveness information, and program changes. A breakdown of the load reduction for each event day and each event hour including line losses is shown in Table 22. A copy of the program report is included in *Supplement 2: Evaluation*.

**Table 22. Irrigation Peak Rewards program MW load reduction for events**

Event Date	2–3 pm	3–4 pm	4–5 pm	5–6 pm	6–7 pm	7–8 pm	8–9 pm
6/24/2020	78.63	162.67	236.38	292.43	213.80	129.76	56.05
7/21/2020	61.75	118.38	190.55	240.52	178.77	122.14	49.97
7/31/2020	43.10	111.64	181.82	225.96	182.86	114.31	44.14

## 2021 Program and Marketing Strategies

Idaho Power will continue to recruit past participants in this program for the 2021 irrigation season; no program changes are expected. Because customers enroll for this program in the late winter or early spring when COVID-19 restrictions are still likely to be in place, the company’s agricultural representatives will present information on the program during the virtual Eastern Idaho Ag Expo and other virtual training sessions. Each eligible customer will also be sent a comprehensive packet containing an informational brochure, enrollment worksheet, and contact worksheet encouraging their participation. Idaho Power agricultural representatives will continue to remind and inform customers to encourage program participation.

## Other Programs and Activities

### *Local Energy Efficiency Funds*

The purpose of Local Energy Efficiency Funds (LEEF) is to provide modest funding for short-term projects that do not fit within Idaho Power's energy efficiency programs but provide a direct benefit to the promotion or adoption of beneficial energy efficiency behaviors or activities. Idaho Power has been modifying its existing programs and expanding programs over the years to include as many cost-effective energy efficiency measures as possible for all customers. Due to the expanded options, there has been decreasing participation in the LEEF offering.

In 2020, Idaho Power received two LEEF applications for funding related to residential heating and cooling systems. Because both projects were deemed eligible for an existing energy efficiency program, an Idaho Power residential program specialist followed up with the applicants to encourage participation in the appropriate program.

### *Idaho Power's Internal Energy Efficiency Commitment*

In 2020, Idaho Power continued to upgrade its substation buildings across the service area and prioritize the conversion to xeriscape landscaping.

Renovation projects continued at the Idaho Power CHQ in downtown Boise, with a project to exchange the old T-12 parabolic lighting fixtures with LED fixtures. Remodels continued to incorporate energy efficiency measures, such as lower partitions for better transfer of daylight, other lighting retrofits, and automated lighting controls. The CHQ building also participated in the Flex Peak Program again in 2020 and committed to reduce up to 200 kW of electrical demand during events. Unlike other program participants, Idaho Power does not receive any financial incentives for its participation.

### *Market Transformation*

While all Idaho Power's energy efficiency programs and activities are gradually transforming markets by changing customer's knowledge, use and application of energy efficient technologies and principles. The traditional market transformation definition is an effort to permanently change the existing market for energy efficiency goods and services by engaging and influencing large national companies to manufacture or supply more energy-efficient equipment. Through market transformation activities, there is promotion of the adoption of energy-efficient materials and practices before they are integrated into building codes or become standard equipment. Idaho Power achieves market transformation savings primarily through its participation in NEEA. Although in 2020, Idaho Power and Avista did partner to engage with another third party to explore and evaluate potential opportunities or enhancements for traditional market transformation efforts that could benefit customers in both utilities service areas beyond what NEEA is currently supporting. This engagement will continue into 2021 and may lead to future efforts.

### **NEEA**

Idaho Power has funded NEEA since its inception in 1997. NEEA's role is to look to the future to find emerging opportunities for energy efficiency and to create a path forward to make those opportunities a reality in the region.

Pursuant to IPUC Order No. 34556 Idaho Power participates in NEEA with funding from the Idaho Rider. The current NEEA contract is for the five years 2020-2024. NEEA categorizes the saving it achieves in five categories: total regional savings, baseline savings, local program savings, net market effects, and co-created saving created by NEEA and its utility funders working collaboratively. Of the

360–500 average megawatts (aMW) of savings forecast for 2020 to 2024, NEEA expects 70 to 100 aMW to be net market effects, and 115–152 aMW will be co-created savings. The current contract commits Idaho Power to paying NEEA \$14.7 million, or approximately \$2.9 million annually.

In 2020, Idaho Power participated in all of NEEA’s committees and workgroups, including representation on the Regional Portfolio Advisory Committee (RPAC) and the Board of Directors. Idaho Power representatives participate in the RPAC, Cost-Effectiveness Advisory Committee, Commercial Advisory Committee, RETAC and the Idaho Energy Code Collaborative. The company also participates in NEEA’s initiatives, including the Residential Building Stock Assessment, Commercial Building Stock Assessment, Commercial Code Enhancement (CCE), Strategic Energy Management (SEM), Top-Tier Trade Ally (NXT Level), and Luminaire Level Lighting Controls (LLLC).

For the 2020-2024 funding cycle, NEEA and its funders have reorganized the “advisory” committees. NEEA now has two coordinating committees: Products Coordinating Committee and Integrated Systems Coordinating Committee. NEEA and its funders will form working groups as needed in consultation with the RPAC. The RPAC will continue, as well as the Cost Effectiveness Advisory and the Regional Emerging Technology Advisory committees. The Idaho Energy Code Collaborative will also remain intact.

NEEA performed several market progress evaluation reports (MPER) on various energy efficiency efforts this year. In addition to the MPERs, NEEA provides market research reports through third-party contractors for energy efficiency initiatives throughout the Northwest. Copies of these and other reports mentioned below are referenced in *Supplement 2: Evaluation* and on NEEA’s website under Resources & Reports. For information about all committee and workgroup activities, see the information below.

## **NEEA Marketing**

To support NEEA efforts, Idaho Power educated residential customers on HPWH and DHPs and educated commercial customers and participating contractors on NXT Level Lighting Training and LLLC.

Idaho Power promoted DHPs and HPWHs as part of its H&CE Program. The company also promoted DHPs and HPWHs as part of its residential marketing campaign. Full details can be found in the H&CE Program’s Marketing section.

Idaho Power continued to encourage trade allies to take the NXT Level Lighting Training. Idaho Power posted on LinkedIn in April and August highlighting NXT Level Lighting Training. To promote LLLC, Idaho Power added a link to an informational LLLC flyer on the main Retrofits and Lighting webpages. The company also posted about LLLCs on LinkedIn in August.

## **NEEA Activities: All Sectors**

### ***Cost-Effectiveness Advisory Committee***

The advisory group meets four times a year to review evaluation reports, cost-effectiveness, and savings assumptions. One of the primary functions of the work group is to review all savings assumptions updated since the previous reporting cycle. The committee also reviews NEEA evaluation studies and data collection strategies and previews forthcoming research and evaluations.

### ***Idaho Energy Code Collaborative***

Since 2005, the State of Idaho has been adopting a state-specific version of the IECC. The Idaho Energy Code Collaborative was formed to assist the Idaho Building Code Board (IBCB) in the vetting and evaluation of future versions of the IECC for the residential and commercial building sectors. The group

is comprised of individuals having diverse backgrounds in the building industry and energy code development. Building energy code evaluations are presented by the group at the IBCB public meetings. The group also provides education to the building community and stakeholders to increase energy code knowledge and compliance. Idaho Power is an active member. The work is facilitated by NEEA.

On October 29, 2019, the IBCB approved the *2018 International Building Code, 2018 International Existing Building Code, 2018 International Residential Code, 2018 International Energy Conservation Code* (residential), and the *2018 International Energy Conservation Code* (commercial) with amendments. The codes were on Idaho's 2020 legislative session agenda for potential adoption and were adopted with an effective date of January 1, 2021. The Idaho Energy Code Collaborative is an effort in which Idaho Power will continue to participate.

### **Regional Emerging Technology Advisory Committee**

Idaho Power participated in the RETAC, which met quarterly to review the emerging technology pipeline for BPA, NEEA, and the Northwest Power and Conservation Council (NWPPCC) Seventh Power Plan. Throughout 2020, RETAC focused on technologies for residential HVAC, commercial HVAC, and water heating. RETAC discussed the gaps and issues that exist for these technologies and how NEEA and the regional utilities can address those issues. This work will continue in 2021.

### **Regional Portfolio Advisory Committee**

RPAC is responsible for overseeing NEEA's market transformation programs and their advancement through key milestones in the "Initiative Lifecycle." RPAC members must reach a full consent vote at selected milestones for a program to advance to the next stage. In 2018, NEEA and RPAC formed an additional group called the RPAC Plus (RPAC+), which included marketing subject matter experts to help coordinate NEEA's marketing activities with those of the funders. RPAC convenes quarterly meetings and adds other webinars as needed.

In 2020, RPAC conducted four quarterly meetings, one that had an in-person option and the rest that were virtual due to COVID-19 restrictions. Throughout 2020, RPAC received updates of savings forecasts, portfolio priorities, committee reports, and some of the impacts of COVID-19. In addition to quarterly meetings, NEEA held a webinar workshop specifically on HPWH on February 11, 2020 to discuss tools and strategies to bolster adoption.

In the first regular quarterly meeting on March 4, NEEA held another workshop on bolstering HPWH sales in the region which resulted in a recommendation for NEEA to create an awareness/education campaign.

On June 2, NEEA staff updated RPAC on lessons learned from some Midstream Commercial Commodity Lighting pilot projects, key insights from lighting sales data, and a linear commodity lighting opportunity.

At the August 25 meeting, NEEA gave an overview of the new residential HVAC program concept, which encompasses variable capacity air source heat pumps in central forced-air applications displacing less efficient, single-speed heat pumps and electric furnaces for both retrofits and new construction. NEEA also presented market transformation progress for DHPs and shared thinking on plans to transition to Long-term Monitoring and Tracking (LTMT) and reminded RPAC that the super-efficient dryers initiative was ending in 2021. Additionally, at the RPAC+ portion of the meeting, NEEA shared the details of a proposed HPWH awareness campaign.

At the November 4 meeting, NEEA gave RPAC members an overview of the DHP program's transition to the LTMT phase. Additionally, at this meeting NEEA gave an overview of the new Variable Speed Heat Pump program that will be brought to RPAC members for an Initiative Start vote at the first

quarterly meeting of 2021. NEEA also reported on the Carbon Offsets Research Work Group regarding the idea for creating carbon credits for HPWHs.

### **NEEA Activities: Residential**

As a result of the NEEA advisory committee reorganization, the Residential Advisory Committee (RAC) was disbanded by NEEA and the tasks the committee worked on divided between the two coordinating committees: Products Coordinating Committee and Integrated Systems Coordinating Committee. The BetterBuilt NW Workgroup, which encompassed Residential New Homes and ENERGY STAR<sup>®</sup> Manufactured Homes, the Retail Products Portfolio (RPP) Initiative Workgroup and the Super-Efficient Dryers Workgroup were dissolved. Those initiatives are now included within the Product Coordinating Committee. Idaho Power is represented on both coordinating committees. Meetings were held in each quarter in 2020 for both coordinating committees. These committees provide utilities with the opportunity to give meaningful input into the design and implementation of NEEA programs as well as to productively engage with each other.

NEEA provides BetterBuiltNW online builder and contractor training, and manages the regional homes database, AXIS. NEEA continued to market an above-code manufactured homes specification, known as NEEM 2.0 to regional utilities. This specification may eventually replace the current NEEM 1.1 specification, which is dependent upon Housing and Urban Development (HUD) upgrading current code.

### ***Residential Building Stock Assessment***

NEEA began work on the Residential Building Stock Assessment (RBSA) in mid-2020. The RBSA is conducted approximately every five years. Its purpose is to determine common attributes of residential homes and to develop a profile of the existing residential buildings in the Northwest. The information is used by the regional utilities and NWPPCC to determine load forecast and energy savings potential in the region.

Idaho Power participated in monthly work group meetings to discuss the study's objectives, framework, sampling design, and communication plan. It's anticipated that site visits in the region will begin in mid-2021 and will finish by mid-2022. For residential customers who choose to participate, the third-party contractor will schedule a site visit with a field technician who collects information on the home characteristics.

It is unknown when Idaho Power customers will be contacted for this study. A COVID-19 safety plan will be developed and approved by each utility prior to the start of the site visits. A final report will be available by the end of 2022.

### **NEEA Activities: Commercial/Industrial**

NEEA continued to provide support for commercial and industrial energy efficiency activities in Idaho in 2020, which included partial funding of the IDL for trainings and additional tasks.

### ***Commercial Code Enhancement***

NEEA facilitated regional webinars for the CCE initiative for new construction to discuss how utilities can effectively align code changes and utility programs. The CCE is a NEEA initiative comprised of people with varying backgrounds and levels of association with the building construction industry. The group's goal is to enable the continual advancement of commercial construction and energy codes and identify opportunities to highlight above code best practice in local markets. This work will continue in 2021.



### ***Top-Tier Trade Ally (NXT Level)***

In 2020, NXT Level performed well in the region. The program continued to increase the pool of NXT Level designees. COVID-19 restrictions resulted in some increase in demand for online training; however, it also brought challenges in time and availability for participants to join the scheduled online training. NEEA updated the NXT Level 1 curriculum in 2020, as well as implemented new website resources.

Region-wide, 52 individuals were designated NXT Level 1, while 21 were newly designated NXT Level 2. Eleven companies achieved an NXT Level designation. Program-to-date, there are 335 individual NXT Level 1 and 80 NXT Level 2 designees, and 62 designated companies. In Idaho Power's service area there are 48 Level 1 individual designations, four Level 2 individual designations, and three company designations.

NXT Level 1 training was held in Pocatello in 2020 (pre-COVID-19) for the local International Brotherhood of Electrical Workers (IBEW) members. This was a pilot to see if an alternative delivery method to online was viable. The in-person training proved successful. This training resulted in 23 participants receiving Level 1 designation. Idaho Power encouraged NEEA to offer in-person NXT Level training in the future, when feasible and appropriate to do so.

### ***Luminaire Level Lighting Controls***

NEEA completed four studies in 2020: LLLC Incremental Cost Study, LLLC Market Assessment, LLLC and other Networked Lighting Controls (NLC) Energy Savings, and LLLC Replacement vs Redesign Comparison Study. These studies were provided to increase understanding of LLLC and its benefits.

NEEA assisted the implementers of Idaho State Code training to improve curriculum and educational resources related to LLLC.

NEEA partnered with the Seattle Lighting Design Lab (LDL) to offer a series of webinars on controls in 2020. Additionally, NEEA also delivered LLLC webinars in collaboration with IDL and their partner organizations, such as BOMA and the American Institute of Architects (AIA).

NEEA stated: "The LLLC program has engaged manufacturers with the objective of increasing their focus on LLLC by their sales channels in the Northwest, and four LLLC manufacturers agreed in 2020 to collaborate. While some training by manufacturers of sales agencies, distributors, and specifiers has begun, implementation was slowed in 2020 due to impacts and challenges of COVID-19. As those activities with manufacturers ramp up, it may present opportunities for collaboration with Idaho Power and other utilities."

### ***NEEA Funding***

In 2020, Idaho Power and NEEA commenced a five-year agreement for the funding cycle of 2020-2024. Per this agreement, NEEA implements market transformation programs in the company's service area. Idaho Power is committed to fund NEEA based on a quarterly estimate of expenses up to the five-year total direct funding amount of \$14.7 million, or approximately \$2.9 million annually. Of this amount in 2020, 100% was funded through the Idaho and Oregon Riders. Funding for the 2020-2024 five-year cycle was submitted to IPUC for approval on October 21, 2019. On February 20, 2020, Idaho Power received IPUC Order No. 34556, supporting Idaho Power's participation in NEEA from 2020-2024 with such participation to be funded through the Idaho Rider and subject to a prudency review.

In 2020, Idaho Power paid \$2,789,210 to NEEA: \$2,649,749 from the Idaho Rider for the Idaho jurisdiction and \$139,460 from the Oregon Rider for the Oregon jurisdiction. Other expenses associated



with Idaho Power's participation in NEEA activities, such as administration and travel, were also paid from Idaho and Oregon Riders.

Final NEEA savings for 2020 will be released later in the year. Preliminary estimates reported by NEEA for 2020 indicate Idaho Power's share of regional market transformation savings as 15,991 MWh. These savings are reported in two categories, 1) codes-related and standards-related savings of 13,106 MWh (82%) and 2) non codes-related and non-standards-related savings of 2,885 MWh (18%).

In the *Demand Side Management 2019 Annual Report*, preliminary funding share estimated savings reported were 18,108 MWh. The final savings included in this report for 2019 final funding-share NEEA savings is 18,368 MWh. These include savings from code-related initiatives as well as non-code related initiatives. Idaho Power relies on NEEA to report the energy savings and other benefits of NEEA's regional portfolio of initiatives. For further information about NEEA, visit their website [neea.org](http://neea.org).

## **Regional Technical Forum**

The RTF is a technical advisory committee to the NWPCC, established in 1999 to develop standards to verify and evaluate energy efficiency savings. Since 2004, Idaho Power has supported the RTF by providing annual financial support, regularly attending monthly meetings, participating in subcommittees, and sharing research and data beneficial to the forum's efforts.

The forum is made up of both voting members and corresponding members from investor-owned and public utilities, consultant firms, advocacy groups, ETO, and BPA, all with varied expertise in engineering, evaluation, statistics, and program administration. The RTF advises the NWPCC during the development and implementation of the regional power plan in regard to the following listed in the RTF charter:

- Developing and maintaining a readily accessible list of eligible conservation resources, including the estimated lifetime costs and savings associated with those resources and the estimated regional power system value associated with those savings.
- Establishing a process for updating the list of eligible conservation resources as technology and standard practices change, and an appeal process through which utilities, trade allies, and customers can demonstrate that different savings and value estimates should apply.
- Developing a set of protocols by which the savings and system value of conservation resources should be estimated, with a process for applying the protocols to existing or new measures.
- Assisting the NWPCC in assessing 1) the current performance, cost, and availability of new conservation technologies and measures; 2) technology development trends; and 3) the effect of these trends on the future performance, cost, and availability of new conservation resources.
- Tracking regional progress toward the achievement of the region's conservation targets by collecting and reporting regional research findings and energy savings annually.

The current agreement to sponsor the RTF extends through 2024. Under this agreement, Idaho Power is the fourth largest RTF funder, at a rate of \$713,300 for the five-year period. For this funding cycle, gas utilities and the gas portion dual-fuel utilities are also funding the RTF.

When appropriate and when the work products are applicable to the climate zones and load characteristics in Idaho Power's service area, Idaho Power uses the savings estimates, measure protocols, and supporting work documents provided by the RTF. In 2020, Idaho Power staff participated in all RTF meetings and the RTF Policy Advisory Committee.

Throughout the year, Idaho Power reviews any changes enacted by the RTF to savings, costs, or parameters for existing and proposed measures. The company then determines how the changes might

be applicable to, or whether they impact, its programs and measures. The company accounted for all implemented changes in planning and budgeting for 2021.

### ***Residential Energy Efficiency Education Initiative***

Idaho Power recognizes the value of general energy efficiency awareness and education in creating behavioral change and customer demand for, and satisfaction with, its programs. The REEEI promotes energy efficiency to the residential sector. The company achieves this by creating and delivering educational materials and programs that result in wise and informed choices regarding energy use and increased participation in Idaho Power's energy efficiency programs.

#### **Kill A Watt Meter Program**

The Kill A Watt™ Meter Program remained active in 2020. Idaho Power's Customer Service Center and field staff continued to encourage customers to learn about the energy used by specific appliances and activities within their homes by visiting a local library to check out a Kill A Watt meter.



**Figure 21. Kill A Watt meter**

#### **Teacher Education**

As in previous years, Idaho Power continued to strengthen the energy education relationship with secondary school educators through participation on the Idaho Science, Technology, Engineering, and Mathematics (iSTEM) Steering Committee. In 2020, Idaho Power and Intermountain Gas attempted to expand their reach by adding a second professional development workshop for teachers at Idaho State University's iSTEM Institute, in addition to the four day, two-credit professional development workshop offered at the College of Western Idaho's iSTEM Institute. However, due to COVID-19 restrictions, all of the 2020 iSTEM Institutes were cancelled. Both Idaho Power and Intermountain Gas have agreed to continue sponsorship of two virtual workshop sessions in 2021.

#### **Customer Education and Marketing**

REEEI produced one Energy Efficiency Guide in 2020. Idaho Power distributed the guide primarily as an insert in local newspapers. The spring/summer themed guide was published and distributed by 20 newspapers in Idaho Power's service area the week of April 25; the *Boise Weekly* also inserted the

guide. The guide focused on providing answers to a number of energy efficiency questions customers had recently asked about home upgrades and do-it-yourself projects, including tips for renters and home buyers, how to get the best value for your dollar, and best practices for home water systems. Idaho Power promoted the guide on its homepage and on social media. The *Idaho Statesman* published two ads encouraging readers to look for the guide.



**Figure 22. Spring/Summer edition of the *Energy Efficiency Guide*, 2020**

The REEEI team investigated ways to adapt the fall/winter guide for a younger, more digitally native customer. On its website, Idaho Power provided links to current seasonal guides and past guides.

REEEI distributed energy efficiency messages through a variety of other communication methods in 2020. Idaho Power increased customer awareness of energy saving ideas via continued distribution of the fifth printing of the 96-page booklet *30 Simple Things You Can Do to Save Energy*, a joint publishing project between Idaho Power and The Earthworks Group. In 2020, the program distributed 2,424 copies directly to customers. This was accomplished primarily by fulfilling direct web requests from customers, through energy advisors during in-home visits, and in response to inquiries received by Idaho Power's Customer Care Center.

Idaho Power continues to recognize that educated employees are effective advocates for energy efficiency and Idaho Power's energy efficiency programs. Idaho Power CR&EE staff reached out to each of Idaho Power's geographical regions and the Customer Care Center to speak with energy advisors and other employees to discuss educational initiatives and answer questions about the company's energy efficiency programs.

Prior to COVID-19 restrictions, Idaho Power participated in the Idaho Remodeling and Design Show; Smart Women, Smart Money; and the Canyon County winter home show. Program specialists and EOEAs looked for virtual opportunities to continue sharing messages regarding low-cost and no-cost energy-saving opportunities. In 2020, despite the COVID-19 pandemic challenges, Idaho Power's EOEAs delivered over 300 presentations with energy-saving messages to audiences of all ages. Additionally, Idaho Power's energy efficiency program specialists responded with detailed answers to 231 customer questions about energy efficiency and related topics received via Idaho Power's website.



Because of COVID-19 restrictions for in-person activities, REEEI increased digital communication efforts to bring a variety of energy-saving and money-saving tips to customers. Early in the year, Idaho Power’s social media channels and *News Briefs* focused on content designed to help customers save energy while spending more time at home. COVID-conscious energy efficiency tips continued through the rest of 2020, including in a December bill insert that provided all residential customers with easy steps to get their home ready for winter heating and behavior tips for reducing energy use.



We’re likely to spend more time at home this winter. Taking a few easy steps to stay warm and cozy as cooler weather rolls in can make a big difference for energy-savings.

Here are our best DIY tips and tricks for getting the most out of your winter heating.

**One and done:**

- Weatherstrip and caulk around doors and windows to reduce drafts.** Fixing air leaks is one of the cheapest and easiest ways to improve comfort and reduce energy use.
- Replace or clean your furnace filter(s)** to improve efficiency and help your system last longer.
- Set the temperature on your water heater** so water at the tap is 120° F.
- Install a smart or programmable thermostat** to easily adjust your home’s temperature based on your schedule. Visit our website to see if you qualify for a \$75 smart thermostat incentive — [idahopower.com/save](http://idahopower.com/save).
- Seal ductwork using mastic or approved foil-faced tape** to keep heated air from leaking into your attic or crawlspace.
- Ensure you have adequate attic insulation.** We recommend a ceiling R-value of 38 or more.



**Every day:**

- Turn down your thermostat** at night or when the house is empty. If you have a heat pump, do not turn the thermostat down more than 2 to 3 degrees.
- Run your ceiling fan clockwise on low** to push warm air up toward the ceiling and down the walls into the room.
- Open your curtains and blinds** during the day to let the sun heat your home.
- Switch off lights and electronics** when not in use, including televisions and computers.
- Wash only full loads** of laundry and dishes.



To learn more about energy efficiency tips, tricks and programs, visit our website: [idahopower.com/save](http://idahopower.com/save)

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**Figure 23. Bill insert example**

Idaho Power used multiple channels to promote National Energy Awareness Month in October, including social media posts encouraging energy-efficient behaviors and program awareness. *News Briefs* and the KTVB and KMVT monthly television spots also highlighted Energy Awareness Month activities.

The REEEI continued to provide energy efficiency tips in response to media inquiries and in support of Idaho Power’s social media posts. In addition to supplying information for publications, such as

*Connections* and Idaho Power's social media pages, energy efficiency tips and content were provided for *News Briefs* and KTVB and KMVT live news segments focused on energy efficiency.

## **2021 Program and Marketing Strategies**

The initiative's 2021 goals are to improve customer awareness of the wise use of energy, increase program participation, and promote educational and energy-saving ideas that result in energy-efficient, conservation-oriented behaviors.

In addition to producing and distributing educational materials, the initiative will continue to manage the company's Educational Distributions program. Examples of activities conducted under Educational Distributions include developing LED lighting education material, distributing LED nightlights, administering the SEEK program, Welcome Kit distribution, and the HER Program.

The initiative will continue to educate customers using a multi-channel approach to explore new technologies and/or program opportunities that incorporate a behavioral component.

## ***University of Idaho Integrated Design Lab***

Idaho Power is a founding supporter of the IDL ([idlboise.com](http://idlboise.com)), which is dedicated to the development of high-performance, energy-efficient buildings in the Intermountain West. Idaho Power has worked with the IDL since its inception in 2004 to educate the public about how energy-efficient business practices benefit the business and the customer. In 2020, Idaho Power entered into an agreement with the IDL to perform the tasks and services described below.

### **Foundational Services**

The goal of this task was to provide energy efficiency technical assistance and project-based training to building industry professionals and customers. Requests for IDL involvement in building projects are categorized into one of three types:

- Phase I projects are simple requests that can be addressed with minimal IDL time.
- Phase II projects are more complex requests that require more involvement and resources from the lab.
- Phase III projects are significantly more complex and must be co-funded by the customer.

The IDL provided technical assistance on 16 new projects in the Idaho Power service area in 2020: ten Phase I projects, five Phase II projects, and one Phase III project. One of the projects was on a new building, and 15 were on existing buildings. The number of projects increased in 2020, compared to 13 in 2019, and the total building area impacted increased to approximately 385,000 ft<sup>2</sup>, compared to 275,000 ft<sup>2</sup> in 2019. The related report is located in the IDL section of *Supplement 2: Evaluation*.

### **Lunch & Learn**

The goal of the Lunch & Learn task was to educate architects, engineers, and other design and construction professionals about energy efficiency topics through a series of educational lunch sessions.

In 2020, the IDL scheduled 20 technical training lunches which were conducted virtually due to COVID-19 restrictions. Ten sessions were coordinated directly with architecture and engineering firms and organizations, and 10 were available to the public; a total of 366 architects, engineers, designers, project managers, and others attended.

The topics of the lunches (and the number performed of each) were: IAQ and Energy Efficiency in Buildings (2); Daylight in Buildings: Getting the Details Right (1); Chilled Beams (1); Radiant System

Design Considerations (2); Hybrid Ground Source Heat Pump Systems (1); The Architect's Business Case for Energy Performance Modeling (2); Future of Lighting Controls (1); Luminaire Level Lighting Control (1); Daylighting Multipliers-Increasing Daylight Harvesting Efficiency (2); High-Performance Classrooms (3); Variable Refrigerant Flows (VRF) and Heat Pumps (2); Dedicated Outdoor Air Systems (1); and COVID-19 in Buildings (1). The related report is in the IDL section of *Supplement 2: Evaluation*.

### **Building Simulation Users Group**

The goal of this task was to facilitate the Idaho BSUG, which is designed to improve the energy efficiency related simulation skills of local design and engineering professionals.

In 2020, six monthly BSUG sessions were hosted by IDL. Five of the six sessions were hosted virtually due to COVID-19 restrictions. The sessions were attended by 12 professionals in-person and 93 professionals virtually. Evaluation forms were completed by attendees for each session. On a scale of 1 to 5, with 5 being "excellent" and 1 being "poor," analyzing results from the first six questions, the average session rating was 4.20 for 2020. For the final question, "The content of the presentation was..." on a scale of 1 to 5, with 1 being "too basic," 3 being "just right," and 5 being "too advanced," the average session rating was 3.5 for 2020.

Each presentation was archived on the BSUG 2.0 website along with general BSUG content. The related report is located in the IDL section of *Supplement 2: Evaluation*.

### **New Construction Verification**

The goal of this task was to continue random post-project verification on 10% of the total completed C&I Energy Efficiency Program New Construction projects. In 2020, the IDL conducted a desk review of all project documentation because COVID-19 restrictions limited on-site inspections. The purpose of this verification was to confirm program guidelines and requirements help participants provide accurate information regarding measure installations. See the New Construction option in the C&I Energy Efficiency Program section for a summary of these activities. The complete verification report is located in the IDL section of *Supplement 2: Evaluation*.

This task also included the desk review of all daylight photo-control incentives to improve the quality of design and installation.

### **Energy Resource Library**

The ERL, formally Tool Loan Library (TLL), gives customers access to resources for measuring and monitoring energy use on various systems. The goal of this task was to operate and maintain the library, which includes a web-based loan tracking system, and to teach customers how to use the resources in the library.

The inventory of the ERL consists of over 900 individual pieces of equipment. In 2020, 34 new tools were added to replace old data logging models and additional analog connectors were purchased for the XC power logger series due to a compatibility issue. The tools and manuals are available at no cost to customers, engineers, architects, and contractors in Idaho Power's service area to aid in the evaluation of energy efficiency projects and equipment they are considering. Due to COVID-19 restrictions, a contactless pick-up and drop-off system was put into place.

In 2020, 13 of the 17 tool loan requests were completed by 10 unique users from seven locations, including three new users. The related report is in the IDL section of *Supplement 2: Evaluation*.



In 2020, Idaho Power also helped the IDL update its ERL brochure and catalog. To reduce the risk of spreading COVID-19, the catalog was published electronically with plans to distribute hard copies in 2021.

### **Building Energy Analytics Case Study**

In 2020, the IDL was unable to complete this task as previously intended due to COVID-19 restrictions. IDL did develop a tool to normalize operational history based on weather and to locate anomalies in building energy use. Rather than weather forecasts, the lab applied historical records of weather and utility bills to develop a template that any building operator or owner can use. The user may enter the latest usage in Excel and receive visual feedback from the spreadsheet. Unlike a full analytic software package (e.g., BuildingIQ, SkySpark, or EnergyCap), the IDL spreadsheet is a simplified method to identify when building operations drift from normal performance. This tool was provided to Idaho Power, and will be made available as a free resource to its customers on the IDL website by the second quarter of 2021.

The related report for this task is located in the IDL section of *Supplement 2: Evaluation*.

### **RTU Control Retrofits for Small Commercial**

In 2020, the IDL changed this task compared to what was previously intended due to COVID-19 restrictions. The IDL redirected its efforts to study the energy impact of COVID-19 precautions on virtual Roof Top Units (RTU). The IDL modeled specific recommendations for a typical small office with three mitigation strategies: upgrading the filter ratings, increasing the percentage of outdoor air, and increasing the amount of time the RTUs are in ventilation mode.

The related report for this task is located in the IDL section of *Supplement 2: Evaluation*.

### **2021 IDL Strategies**

In 2021, IDL will continue work on the Foundational Services, Lunch & Learn sessions, BSUG, New Construction Verifications, ERL, and one new task, Energy Impacts of IAQ Devices.



## LIST OF ACRONYMS

A/C	Air Conditioning or Air Conditioner
Ad	Advertisement
AIA	American Institute of Architects
AMI	Advanced Metering Infrastructure
aMW	Average Megawatt
ASHRAE	American Society of Heating, Refrigeration, and Air Conditioning Engineers
B/C	Benefit/Cost
BCASEI	Building Contractors Association of Southeast Idaho
BCASWI	Building Contractors Association of Southwestern Idaho
BOMA	Building Owners and Managers Association
BPA	Bonneville Power Administration
BPI	Building Performance Institute
BRC	Business Reply Card
BSUG	Building Simulation Users Group
C&I	Commercial and Industrial
CAP	Community Action Partnership
CAPAI	Community Action Partnership Association of Idaho, Inc.
CCE	Commercial Code Enhancement
CCNO	Community Connection of Northeast Oregon, Inc.
CDC	Centers for Disease Control
CEI	Continuous Energy Improvement
CEL	Cost-Effective Limit
CFM	Cubic Feet per Minute
CHQ	Corporate Headquarters (Idaho Power)
CINA	Community in Action
COP	Coefficient of Performance
CR&EE	Customer Relations and Energy Efficiency
CSI	College of Southern Idaho
DHP	Ductless Heat Pump
DOE	US Department of Energy
DSM	Demand-Side Management
EA5	EA5 Energy Audit Program
ECM	Electronically Commutated Motor

EEAG—Energy Efficiency Advisory Group  
EICAP—Eastern Idaho Community Action Partnership  
EISA—Energy Independence and Security Act  
EL ADA—El Ada Community Action Partnership  
EM&V—Evaluation, Measurement, and Verification  
EOEA—Education and Outreach Energy Advisors  
ERL—Energy Resource Library  
ESK—Energy-Saving Kit  
ETO—Energy Trust of Oregon  
ft—Feet  
ft<sup>2</sup>—Square Feet  
GMI—Green Motors Initiative  
GMPG—Green Motors Practice Group  
gpm—Gallons per Minute  
H&CE—Heating & Cooling Efficiency  
HER—Home Energy Report  
hp—Horsepower  
HOU—Hours of Use  
HPWH—Heat Pump Water Heater  
HSPF—Heating Seasonal Performance Factor  
HUD—Housing and Urban Development  
IAQ—Indoor Air Quality  
IBCA—Idaho Building Contractors Association  
IBCB—Idaho Building Code Board  
IBEW—International Brotherhood of Electrical Workers  
ID—Idaho  
IDHW—Idaho Department of Health and Welfare  
IDL—Integrated Design Lab  
IECC—International Energy Conservation Code  
IPMVP—International Performance Measurement and Verification Protocol  
IPUC—Idaho Public Utilities Commission  
IRP—Integrated Resource Plan  
iSTEM—Idaho Science, Technology, Engineering, and Mathematics  
kW—Kilowatt

kWh—Kilowatt hour  
LDL—Lighting Design Lab  
LEEF—Local Energy Efficiency Funds  
LIHEAP—Low Income Home Energy Assistance Program  
LLLC—Luminaire Level Lighting Controls  
LTMT—Long-Term Monitoring and Tracking  
M&V—Measurement and Verification  
MPER—Market Progress Evaluation Report  
MVBA—Magic Valley Builders Association  
MW—Megawatt  
MWh—Megawatt-hour  
MWSOC—Municipal Water Supply Optimization Cohort  
n/a—Not Applicable  
NEB—Non-Energy Benefit  
NEEA—Northwest Energy Efficiency Alliance  
NEEM—Northwest Energy-Efficient Manufactured Home Program  
NEMA—National Electrical Manufacturers Association  
NLC—Networked Lighting Controls  
NPR—National Public Radio  
NTG—Net to Gross  
NWPCC—Northwest Power and Conservation Council  
O&M—Operation and Maintenance  
OPUC—Public Utility Commission of Oregon  
OR—Oregon  
ORS—Oregon Revised Statute  
OTT—Over-the-Top  
PAI—Professional Assistance Incentive  
PCA—Power Cost Adjustment  
PCT—Participant Cost Test  
PLC—Powerline Carrier  
PR—Public Relations  
PSC—Permanent Split Capacitor  
PTCS—Performance Tested Comfort System  
QA—Quality Assurance

QC—Quality Control  
RAC—Residential Advisory Committee  
RCT—Randomized Control Trial  
REEEI—Residential Energy Efficiency Education Initiative  
RESNET—Residential Energy Services Network  
RETAC—Regional Emerging Technology Advisory Committee  
Rider—Energy Efficiency Rider  
RIM—Ratepayer Impact Measure  
RPAC—Regional Portfolio Advisory Committee  
RPAC+—Regional Portfolio Advisory Committee Plus  
RPP—Retail Products Portfolio  
RTF—Regional Technical Forum  
RTU—Rooftop Unit  
SBDI—Small Business Direct Install  
SCCAP—South Central Community Action Partnership  
SCE—Streamlined Custom Efficiency  
SEEK—Student Energy Efficiency Kits  
SEICAA—Southeastern Idaho Community Action Agency  
SEM—Strategic Energy Management  
Simple Steps—Simple Steps, Smart Savings™  
SIR—Savings-to-Investment Ratio  
SRVBCA—Snake River Valley Building Contractors Association  
STEM—Science, technology, engineering, and mathematics  
TLL—Tool Loan Library  
TRC—Total Resource Cost  
TRM—Technical Reference Manual  
TSV—Thermostatic Shower Valve  
UCT—Utility Cost Test  
UES—Unit Energy Savings  
UM—Utility Miscellaneous  
US—United States  
USGBC—US Green Building Council  
VFD—Variable Frequency Drive  
VRF—Variable Refrigerant Flow



WAP—Weatherization Assistance Program

WAQC—Weatherization Assistance for Qualified Customers

WHF—Whole-House Fan

WWECC—Wastewater Energy Efficiency Cohort



# APPENDICES



**Appendix 1. Idaho Rider, Oregon Rider, and NEEA payment amounts (January–December 2020)**

<b>Idaho Energy Efficiency Rider</b>	
2020 Beginning Balance.....	\$ (311,045)
2020 Funding plus Accrued Interest as of 12-31-2020.....	28,490,581
<b>Total 2020 Funds.....</b>	<b>28,179,537</b>
2020 Expenses as of 12-31-2020.....	(40,409,911)
<b>Ending Balance as of 12-31-2020.....</b>	<b>\$ (12,230,374)</b>
<b>Oregon Energy Efficiency Rider</b>	
2020 Beginning Balance.....	\$ (1,154,279)
2020 Funding plus Accrued Interest as of 12-31-2020.....	1,946,193
<b>Total 2020 Funds.....</b>	<b>791,914</b>
2020 Expenses as of 12-31-2020.....	(1,786,954)
<b>Ending Balance as of 12-31-2020.....</b>	<b>\$ (995,040)</b>
<b>NEEA Payments</b>	
2020 NEEA Payments as of 12-31-2020.....	\$ 2,789,210
<b>Total .....</b>	<b>\$ 2,789,210</b>

**Appendix 2. 2020 DSM expenses by funding source (dollars)**

Sector/Program	Idaho Rider	Oregon Rider	Non-Rider Funds	Total
<b>Energy Efficiency/Demand Response</b>				
<b>Residential</b>				
A/C Cool Credit .....	\$ 405,402	\$ 25,200	\$ 334,418	\$ 765,020
Easy Savings: Low-Income Energy Efficiency Education .....	—	—	9,503	9,503
Educational Distributions .....	3,912,564	91,912	1,547	4,006,023
Energy Efficient Lighting .....	1,603,129	62,218	1,812	1,667,159
Energy House Calls .....	40,492	5,422	438	46,352
Heating & Cooling Efficiency Program .....	578,893	23,978	3,689	606,559
Home Energy Audit .....	128,547	—	1,999	130,546
Multifamily Energy Savings Program .....	83,951	4,350	1,528	89,829
Oregon Residential Weatherization .....	—	5,313	—	5,313
Rebate Advantage .....	174,670	4,897	855	180,422
Residential New Construction Pilot Program .....	471,542	—	1,962	473,504
Shade Tree Project .....	27,652	—	838	28,490
Simple Steps, Smart Savings™ .....	93,865	3,539	1,737	99,141
Weatherization Assistance for Qualified Customers .....	—	—	1,385,577	1,385,577
Weatherization Solutions for Eligible Customers .....	198,226	—	10,489	208,715
<b>Commercial/Industrial</b>				
Commercial and Industrial Energy Efficiency Program .				
Custom Projects .....	17,533,047	466,632	59,717	18,059,396
New Construction .....	2,278,454	98,415	7,114	2,383,983
Retrofits .....	3,481,992	96,323	8,962	3,587,277
Commercial Energy-Saving Kits .....	97,645	5,678	355	103,678
Flex Peak Program .....	84,716	207,707	250,056	542,480
Small Business Direct Install .....	322,463	16,981	386	339,830
<b>Irrigation</b>				
Irrigation Efficiency Rewards .....	3,165,075	194,044	42,553	3,401,673
Irrigation Peak Rewards .....	264,843	185,224	5,957,345	6,407,412
<b>Energy Efficiency/Demand Response Total .....</b>	<b>\$ 34,947,166</b>	<b>\$ 1,497,834</b>	<b>\$ 8,082,880</b>	<b>\$ 44,527,880</b>
<b>Market Transformation</b>				
NEEA .....	2,649,749	139,460	—	2,789,210
<b>Market Transformation Total .....</b>	<b>\$ 2,649,749</b>	<b>\$ 139,460</b>	<b>\$ —</b>	<b>\$ 2,789,210</b>
<b>Other Programs and Activities</b>				
Commercial/Industrial Energy Efficiency Overhead .....	393,112	20,994	8,854	422,960
Energy Efficiency Direct Program Overhead .....	322,964	15,228	8,555	346,747
Oregon Commercial Audit .....	—	1,374	—	1,374
Residential Energy Efficiency Education Initiative .....	209,644	11,192	2,895	223,731
Residential Energy Efficiency Overhead .....	985,565	50,967	5,630	1,042,162
<b>Other Programs and Activities Total .....</b>	<b>\$ 1,911,284</b>	<b>\$ 99,756</b>	<b>\$ 25,935</b>	<b>\$ 2,036,975</b>
<b>Indirect Program Expenses</b>				
Energy Efficiency Accounting & Analysis .....	929,467	48,680	199,325	1,177,471
Energy Efficiency Advisory Group .....	4,448	244	130	4,823
Special Accounting Entries .....	(32,203)	979	51,168	19,944
<b>Indirect Program Expenses Total .....</b>	<b>\$ 901,712</b>	<b>\$ 49,903</b>	<b>\$ 250,623</b>	<b>\$ 1,202,238</b>
<b>Grand Total .....</b>	<b>\$ 40,409,911</b>	<b>\$ 1,786,954</b>	<b>\$ 8,359,437</b>	<b>\$ 50,556,303</b>



## Appendix 3. 2020 DSM program activity

Program	Participants	Total Costs		Savings		Measure Life (Years)	Nominal Levelized Costs <sup>a</sup>		
		Program Administrator <sup>b</sup>	Resource <sup>c</sup>	Annual Energy (kWh)	Peak Demand <sup>d</sup> (MW)		Utility (\$/kWh)	Total Resource (\$/kWh)	
<b>Demand Response<sup>1</sup></b>									
A/C Cool Credit .....	22,536 homes	\$ 765,020	\$ 765,020	n/a	19.4	n/a	n/a	n/a	
Flex Peak Program.....	141 sites	542,480	542,480	n/a	24.2	n/a	n/a	n/a	
Irrigation Peak Rewards .....	2,292 service points	6,407,412	6,407,412	n/a	292.4	n/a	n/a	n/a	
<b>Total.....</b>		<b>\$ 7,714,912</b>	<b>\$ 7,714,912</b>		<b>336.1</b>				
<b>Energy Efficiency</b>									
<b>Residential</b>									
Easy Savings: Low-Income Energy Efficiency Education	155 HVAC tune-ups	9,503	9,503	10,628		3	0.299	0.299	
Educational Distributions .....	97,228 kits/giveaways	3,106,820	3,106,820	9,481,801		11	0.038	0.038	
Energy Efficient Lighting.....	1,148,061 lightbulbs	1,667,159	3,065,781	13,942,202		14	0.012	0.022	
Energy House Calls.....	51 homes	46,352	46,352	56,944		16	0.075	0.075	
Heating & Cooling Efficiency Program.....	1,019 projects	606,559	1,911,792	1,839,068		14	0.033	0.103	
Home Energy Audit .....	97 audits	130,546	142,649	31,938		12	0.448	0.490	
Home Energy Report Program <sup>2</sup> .....	127,138 treatment size	899,203	899,203	10,427,940		1	0.081	0.081	
Multifamily Energy Savings Program .....	33 units	89,829	89,829	28,041		11	0.372	0.372	
Oregon Residential Weatherization .....	0 audits/projects	5,313	5,313	0		45	n/a	n/a	
Rebate Advantage.....	116 homes	180,422	437,263	366,678		44	0.031	0.075	
Residential New Construction Pilot.....	248 homes	473,504	865,989	649,522		58	0.044	0.081	
Shade Tree Project.....	0 trees	28,490	28,490	52,662		30	n/a	n/a	
Simple Steps, Smart Savings™ .....	6,894 appliances/showerheads	99,141	98,629	148,404		12	0.073	0.073	
Weatherization Assistance for Qualified Customers.....	115 homes/non-profits	1,385,577	1,728,293	218,611		30	0.244	0.353	
Weatherization Solutions for Eligible Customers.....	27 homes	208,715	208,715	47,360		23	0.338	0.338	
<b>Sector Total.....</b>		<b>\$ 8,937,132</b>	<b>\$ 12,644,620</b>	<b>37,301,800</b>		<b>11</b>	<b>\$ 0.026</b>	<b>\$ 0.038</b>	
<b>Commercial/Industrial</b>									
Commercial Energy-Saving Kits .....	1,379 kits	103,678	103,678	258,368		11	0.047	0.047	
Custom Projects .....	169 projects	18,059,396	41,604,451	94,006,717		15	0.018	0.042	
Green Motors—Industrial.....	10 motor rewinds			56,012		8			
New Construction .....	119 projects	2,383,983	4,175,611	14,565,936		12	0.018	0.031	
Retrofits .....	630 projects	3,587,277	11,964,431	20,965,215		12	0.019	0.063	
Small Business Direct Install.....	139 projects	339,830	339,830	780,260		9	0.058	0.058	
<b>Sector Total.....</b>		<b>\$ 24,474,163</b>	<b>\$ 58,188,001</b>	<b>130,632,507</b>		<b>14</b>	<b>\$ 0.019</b>	<b>\$ 0.044</b>	

Program	Participants	Total Costs		Savings		Measure Life (Years)	Nominal Levelized Costs <sup>a</sup>	
		Program Administrator <sup>b</sup>	Resource <sup>c</sup>	Annual Energy (kWh)	Peak Demand <sup>d</sup> (MW)		Utility (\$/kWh)	Total Resource (\$/kWh)
<b>Irrigation</b>								
Green Motors—Irrigation .....	23 motor rewinds			36,147		20	n/a	n/a
Irrigation Efficiency Reward .....	1,018 projects	\$ 3,401,673	\$ 16,857,055	12,847,823		15	\$ 0.025	\$ 0.125
<b>Sector Total</b> .....		<b>\$ 3,401,673</b>	<b>\$ 16,857,055</b>	<b>12,883,970</b>		<b>15</b>	<b>\$ 0.025</b>	<b>\$ 0.125</b>
<b>Energy Efficiency Portfolio Total</b> .....		<b>\$ 36,812,968</b>	<b>\$ 87,689,675</b>	<b>180,818,277</b>		<b>14</b>	<b>\$ 0.021</b>	<b>\$ 0.049</b>
<b>Market Transformation</b>								
Northwest Energy Efficiency Alliance (codes and standards) .....				13,105,699				
Northwest Energy Efficiency Alliance (other initiatives) .....				2,884,939				
<b>Northwest Energy Efficiency Alliance Totals<sup>3</sup></b> .....		<b>\$ 2,789,210</b>	<b>\$ 2,789,210</b>	<b>15,990,638</b>				
<b>Other Programs and Activities</b>								
<b>Residential</b>								
Residential Energy Efficiency Education Initiative .....		223,731	223,731					
<b>Commercial</b>								
Oregon Commercial Audits .....	2 audits	1,374	1,374					
<b>Other</b>								
Energy Efficiency Direct Program Overhead .....		1,811,869	1,811,869					
<b>Total Program Direct Expense</b> .....		<b>\$ 49,354,064</b>	<b>\$100,230,772</b>	<b>196,808,914</b>	<b>336</b>			
Indirect Program Expenses .....		1,202,238	1,202,238					
<b>Total DSM Expense</b> .....		<b>\$ 50,556,303</b>	<b>\$101,433,010</b>					

<sup>a</sup> Levelized Costs are based on financial inputs from Idaho Power's 2017 IRP, and calculations include line-loss adjusted energy savings.

<sup>b</sup> The Program Administrator Cost is the cost incurred by Idaho Power to implement and manage a DSM program.

<sup>c</sup> The Total Resource Cost is the total expenditures for a DSM program from the point of view of Idaho Power and its customers as a whole.

<sup>d</sup> Demand response program reductions are reported with 9.7% peak loss assumptions.

<sup>1</sup> Peak Demand is the peak performance of each respective program and not combined performance on the actual system peak hour.

<sup>2</sup> Expenses are contained in Educational Distributions expenses in Appendix 2.

<sup>3</sup> Savings are preliminary estimates provided by NEEA. Final savings for 2020 will be provided by NEEA April 2021.

## Appendix 4. 2020 DSM program activity by state jurisdiction

Program	Idaho			Oregon		
	Participants	Program Administrator Costs	Demand Reduction (MW)/ Annual Energy Savings (kWh)	Participants	Program Administrator Costs	Demand Reduction (MW)/ Annual Energy Savings (kWh)
<b>Demand Response<sup>1</sup></b>						
A/C Cool Credit .....	22,274 homes	\$ 739,720	19.2	262 homes	\$ 25,300	0.2
Flex Peak Program.....	133 sites	334,639	16.6	8 sites	207,841	7.6
Irrigation Peak Rewards .....	2,241 service points	6,222,017	284.3	51 service points	185,395	8.1
<b>Total.....</b>		<b>\$ 7,296,376</b>	<b>320</b>		<b>\$ 418,536</b>	<b>16</b>
<b>Energy Efficiency</b>						
<b>Residential</b>						
Easy Savings: Low-Income Energy Efficiency Education	155 HVAC tune-ups	9,503	10,628	0 HVAC tune-ups		
Educational Distributions .....	93,707 kits/giveaways	3,014,831	9,119,114	3,521 kits/giveaways	91,989	362,287
Energy Efficient Lighting.....	1,103,657 lightbulbs	1,604,850	13,375,546	44,404 lightbulbs	62,309	566,656
Energy House Calls.....	45 homes	40,908	49,686	6 homes	5,444	7,258
Heating & Cooling Efficiency Program .....	1,003 projects	582,397	1,781,404	16 projects	24,162	57,665
Home Energy Audit .....	97 audits	130,546	31,938	0 audits		
Home Energy Report Program .....	127,138 treatment size	899,203	10,427,940	0 treatment size		
Multifamily Energy Savings Program .....	33 units	85,402	28,041	0 projects	4,427	
Oregon Residential Weatherization .....	n/a			0 audits/projects	5,313	0
Rebate Advantage.....	114 homes	175,482	361,061	2 homes	4,940	5,616
Residential New Construction Pilot Program.....	248 homes	473,504	649,522	0 homes		
Shade Tree Project.....	0 trees	28,490	52,662	0 trees		
Simple Steps, Smart Savings™ .....	6,737 appliances/showerheads	95,515	146,986	157 appliances/showerheads	3,625	1,418
Weatherization Assistance for Qualified Customers.....	115 homes/non-profits	1,361,163	218,611	0 homes/non-profits	24,414	0
Weatherization Solutions for Eligible Customers.....	27 homes	208,715	47,360	0 homes		
<b>Sector Total.....</b>		<b>\$ 8,710,509</b>	<b>36,300,499</b>		<b>\$ 226,623</b>	<b>1,001,300</b>
<b>Commercial</b>						
Commercial Energy-Saving Kits .....	1,301 kits	97,982	243,370	78 kits	5,696	14,997
Custom Projects .....	147 projects	17,589,778	91,121,979	22 projects	469,618	2,884,738
Green Motors—Industrial.....	9 motor rewinds		44,235	1 motor rewinds		11,777
New Construction .....	110 projects	2,285,212	14,134,439	9 projects	98,771	431,497
Retrofits.....	613 projects	3,490,506	20,263,512	17 projects	96,771	701,703
Small Business Direct Install.....	139 projects	322,829	780,260	0 projects	17,001	0
<b>Sector Total.....</b>		<b>\$ 23,786,307</b>	<b>126,587,795</b>		<b>\$ 687,856</b>	<b>4,044,712</b>

Program	Idaho			Oregon		
	Participants	Program Administrator Costs	Demand Reduction (MW)/ Annual Energy Savings (kWh)	Participants	Program Administrator Costs	Demand Reduction (MW)/ Annual Energy Savings (kWh)
<b>Irrigation</b>						
Green Motors—Irrigation .....	20 motor rewinds		34,313	3 motor rewinds		1,834
Irrigation Efficiency Rewards .....	980 projects	\$ 3,205,500	12,124,461	38 projects	\$ 196,172	723,362
<b>Sector Total</b> .....		<b>\$ 3,205,500</b>	<b>12,158,773</b>		<b>\$ 196,172</b>	<b>725,196</b>
<b>Market Transformation</b>						
Northwest Energy Efficiency Alliance (codes and standards) .....			12,450,414			655,285
Northwest Energy Efficiency Alliance (other initiatives) .....			2,740,692			144,247
<b>Northwest Energy Efficiency Alliance Totals<sup>2</sup></b> .....		<b>\$ 2,649,749</b>	<b>15,191,106</b>		<b>\$ 139,460</b>	<b>799,532</b>
<b>Other Programs and Activities</b>						
<b>Residential</b>						
Residential Energy Efficiency Education Initiative .....		212,394			11,337	
<b>Commercial</b>						
Oregon Commercial Audits .....				2 audits	1,374	
<b>Other</b>						
Energy Efficiency Direct Program Overhead .....		1,723,528			88,341	
<b>Total Program Direct Expense</b> .....		<b>\$ 47,584,364</b>			<b>\$ 1,769,700</b>	
Indirect Program Expenses .....		1,139,804			62,434	
<b>Total Annual Savings</b> .....			<b>190,238,174</b>			<b>6,570,740</b>
<b>Total DSM Expense</b> .....		<b>\$ 48,724,168</b>			<b>\$ 1,832,134</b>	

<sup>a</sup> Levelized Costs are based on financial inputs from Idaho Power's 2017 IRP and calculations include line loss adjusted energy savings.

<sup>1</sup> Peak Demand is the peak performance of each respective program and not combined performance on the actual system peak hour.

<sup>2</sup> Savings are preliminary estimates provided by NEEA. Final savings for 2020 will be provided by NEEA April 2021.