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Demand-Side
Management

2015 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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NEEA Market Effects Evaluations (included on CD with Supplement 2)

GLOSSARY OF ACRONYMS

A/C—Air Conditioning/Air Conditioners

aCOP—Annual Coefficient of Performances

ADM—ADM Associates, Inc.

Ads—Advertisement

AEG—Applied Energy Group

AIA—American Institute of Architects

AMI—Advanced Metering Infrastructure

aMW—Average Megawatt

AR—Agricultural Representative

ASHRAE—American Society of Heating, Refrigeration, and Air Conditioning Engineers

B/C—Benefit/Cost

BCA—Building Contractors Association

BCASEI—Building Contractors Association of Southeast Idaho

BCASWI—Building Contractors Association of Southwestern Idaho

BML—Building Metrics Labeling

BOMA—Building Owners and Managers Association

BPA—Bonneville Power Administration

BSUG—Building Simulation Users Group

CAES—Center for Advanced Energy Studies

CAP—Community Action Partnership

CAPAI—Community Action Partnership Association of Idaho, Inc.

CAZ—Combustion Appliance Zone

CEL—Cost-Effective Limit

CER—Community Education Representative

CFL—Compact Fluorescent Lamp/Light

CFM—Cubic Feet per Minute

CHQ—Corporate Headquarters (Idaho Power)

CLEAResult—CLEAResult Consulting, Inc.

CLRIS—Customer Load and Research Information System

COP—Coefficient of Performance

CR—Customer Representative (field staff)

CR&EE—Customer Relations and Energy Efficiency Department

CSR—Customer Service Representative (call center)

CTR—Click-Through Rate

CWI—College of Western Idaho

DEQ—Department of Environmental Quality

DHP—Ductless Heat Pump

DOE—Department of Energy

DSM—Demand-Side Management

EA5—EA5 Energy Audit Program

EBR—Existing Building Renewal

ECM—Electronically Commutated Motors

EEAG—Energy Efficiency Advisory Group

EISA—*Energy Independence and Security Act of 2007*

EM&V—Evaluation, Measurement, and Verification

EPA—Environmental Protection Agency

EV—Electric Vehicle

FCA—Fixed-Cost Adjustment

FFA—Future Farmers of America

FMP—Facility Management Professional

ft²—Square Feet

ft³—Cubic Feet

GIS—Geographic Information System

GMPG—Green Motors Practice Group

GPM—Gallons per Minute

GPS—Geographic Positioning System

H&CE—Heating & Cooling Efficiency Program

HERS—Home Energy Rating System

hp—Horsepower

HPS—Home Performance Specialist

HPWH—Heat Pump Water Heater

HSPF—Heating Seasonal Performance Factor

HVAC—Heating, Ventilation, and Air Conditioning

IAC—Industrial Assessment Center

IBCA—Idaho Building Contractors Association

IBOA—International Building Operators Association

ICC—International Code Council

IDHW—Idaho Department of Health and Welfare

IDL—Integrated Design Lab (in Boise)

IECC—International Energy Conservation Code

IFMA—International Facility Management Association

IPMVP—International Performance Measurement and Verification Protocol

IPUC—Idaho Public Utilities Commission

IRC—Idaho Real Estate Commission

IRP—Integrated Resource Plan

iSTEM—Idaho Science, Technology, Engineering and Mathematics

JACO—JACO Environmental, Inc.

kW—Kilowatt

kWh—Kilowatt-hour

LED—Light-Emitting Diode

LEED—Leadership in Energy and Environmental Design

LEEF—Local Energy Efficiency Funds

LIHEAP—Low Income Home Energy Assistance Program

M&V—Measurement & Verification

MCR—Major Customer Representative

MOU—Memorandum of Understanding

MPER—Market Progress Evaluation Report

MVBA—Magic Valley Builders Association

MW—Megawatt

MWh—Megawatt-hour

n/a—Not Applicable

NEB—Non-Energy Benefit

NEEA—Northwest Energy Efficiency Alliance

NEEM—Northwest Energy Efficient Manufactured

NEMA—National Electrical Manufacturers Association

NFRC—National Fenestration Rating Council

NPR—National Public Radio

NSH—Next Step Home

NWPCC—Northwest Power and Conservation Council

NWRRCC—Northwest Regional Retail Collaborative

O&M—Operation and Maintenance

OHCS—Oregon Housing and Community Services

OPUC—Public Utility Commission of Oregon

ORS—Oregon Revised Statute

OSV—On-Site Verification

PCA—Power Cost Adjustment

PCT—Participant Cost Test

PLC—Powerline Carrier

PPG—Program Planning Group

PSC—Permanent Split Capacitor

PTCS—Performance Tested Comfort System

QA—Quality Assurance

QC—Quality Control

RAP—Resource Action Programs

RBSA—Residential Building Stock Assessment

RETA—Refrigerating Engineers and Technicians Association

RETAC—Regional Emerging Technologies Advisory Committee

RFP—Request for Proposal

Rider—Idaho Energy Efficiency Rider and Oregon Energy Efficiency Rider

RIM—Ratepayer Impact Measure Test

ROCEE—Refrigeration Operator Coaching for Energy Efficiency

RPP—Retail Products Platform

RSE—Runyon Saltzman Einhorn

RTF—Regional Technical Forum

RWLR—Reduced Wattage Lamp Replacement

SCCT—Simple-Cycle Combustion Turbine

SCE—Streamlined Custom Efficiency

SEEK—Students for Energy Efficiency Kit

SEM—Strategic Energy Management

SIR—Savings-to-Investment Ratio

SRVBCA—Snake River Valley Building Contractors Association

TLL—Tool Loan Library

TOD—Time of Day

TRC—Total Resource Cost

TRM—Technical Reference Manual

TTTA—Top-Tier Trade Ally

UC—Utility Cost

UES—Unit Energy Savings

UM—Utility Miscellaneous

US—United States

VFD—Variable-Frequency Drive

W—Watt

WAP—Weatherization Assistance Program

WAQC—Weatherization Assistance for Qualified Customers

WHF—Whole-House Fan

WRUN—Western Regional Utility Network

WSOC—Water Supply Optimization Cohort

WWECC—Wastewater Energy Efficiency Cohort

EXECUTIVE SUMMARY

The pursuit of cost-effective energy efficiency is a primary objective for Idaho Power. Energy efficiency and demand response provide economic and operational benefits to the company and its customers. Idaho Power supports the wise use of energy. The availability of information and programs ensures customers' opportunities to learn about their energy use and participate in programs.

Idaho Power's portfolio of energy efficiency program energy savings for 2015 increased to 162,533 megawatt-hours (MWh), including the estimated savings from the Northwest Energy Efficiency Alliance (NEEA), enough energy to power more than 14,000 average homes a year. This is a 12 percent increase from the 2014 energy savings of 145,476 MWh. In 2015, the company's energy efficiency portfolio was cost-effective from both the total resource cost (TRC) test and the utility cost (UC) test perspectives with ratios of 2.32 and 3.57, respectively. The savings from Idaho Power's energy efficiency programs alone, excluding NEEA savings, increased to 140,633 MWh in 2015 from 118,670 MWh in 2014.

Idaho Power successfully operated all three of its demand response programs in 2015. The total demand reduction achieved from the company's programs was 367 megawatts (MW) from an available capacity of 385 MW. The company reduced its demand response costs with a savings to Idaho Power customers of over \$1.6 million from 2014. Almost a million dollars of these savings resulted from Idaho Power's transition of the commercial/industrial demand response program FlexPeak Management—previously administered by a third-party contractor—to the newly renamed Flex Peak Program fully administered by Idaho Power.

Energy efficiency and demand response is an important aspect of Idaho Power's resource planning process. Idaho Power's 2015 achievements in energy savings exceeded the annual savings target identified in Idaho Power's *2015 Integrated Resource Plan (IRP)*. On a cumulative basis, the company's energy savings have exceeded the IRP targets every year since 2002 when the Idaho and Oregon Energy Efficiency Riders (Rider) began.

Total expenditures from all funding sources on DSM-related activities increased by nearly 6 percent, to \$39 million in 2015 from \$37 million in 2014. Energy efficiency program funding comes from the Idaho and Oregon Riders, Idaho Power base rates, and the annual power cost adjustment (PCA). 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.

With a goal of using customers' funds wisely, Idaho Power employees and leaders strive to provide conscientious, prudent, and responsible action and activities that result in cost-effective energy efficiency. This report's content offers descriptions of the 2015 activities and savings.

In 2015, Idaho Power received two marketing awards for the residential energy efficiency awareness campaign from the Idaho Advertising Federation Rockie Awards, which recognizes creative excellence in advertising in Idaho. The company was awarded a Silver Award for the fall TV spot and a Citation Award for the residential energy efficiency awareness campaign. Idaho Power enhanced its marketing and public relations efforts in 2015 with the addition of airport signage, broadcast and online radio, television, and an online customer research panel. Additionally Idaho Power had 14 energy efficiency themed guest appearances on KTVB and KPVI.

Idaho Power continued to use stakeholder input to enhance its programs. The company met regularly with its Energy Efficiency Advisory Group (EEAG) and Idaho Power contracted with a professional

facilitator to improve the EEAG meetings. To keep growth in the program portfolio, the company relied on its Program Planning Group (PPG), initiated in 2014, to fill the pipeline with ideas for offerings to its energy efficiency programs. Additionally, Idaho Power continued program improvement to make it easier for its customers to participate in programs.

As Idaho Power's energy efficiency efforts mature, the company may face deeper challenges acquiring cost-effective energy savings. Program promotion requires increased emphasis and increased costs while the DSM alternative costs decrease, making achieving cost-effective energy efficiency more complicated.

This *Demand-Side Management 2015 Annual Report* provides a review of the company's DSM activities and finances throughout 2015 and outlines Idaho Power's plans for future DSM activities. This report also satisfies the reporting requirements set out in the Idaho Public Utilities Commission's (IPUC) Order Nos. 29026 and 29419. Additionally, Idaho Power will provide a courtesy copy of the report to the Public Utility Commission of Oregon (OPUC) under Oregon Docket Utility Miscellaneous (UM) 1710.

INTRODUCTION

The pursuit of cost-effective energy efficiency is a primary objective for Idaho Power. Energy efficiency and demand response provide economic and operational benefits to the company and its customers. The enhancement of information and programs ensures customers have opportunities to learn about their energy use and participate in programs.

Idaho Power has effectively operated demand-side management (DSM) programs for over half of the company's 100-year history and has ramped up its programs steadily. Through the years, the company has maintained a successful DSM portfolio, including both energy efficiency and demand response programs. This report focuses on the activities since 2004, when the energy efficiency riders began.

Idaho Power's main objectives for DSM programs are to achieve prudent, cost-effective energy efficiency savings and provide an optimal amount of demand reduction from its demand response programs as determined through the Integrated Resource Plan (IRP) planning process. Idaho Power considers cost-effective energy efficiency the company's least-cost resource and pays particular attention to ensuring the best value to Idaho Power's customers. Idaho Power strives to provide customers with programs and information to help them manage their energy use. The company achieves these objectives through the implementation and careful management of programs that provide energy and demand savings and through outreach and education. Idaho Power endeavors to implement identical programs in its Idaho and Oregon service areas.

Energy efficiency program and demand response funding comes from the Idaho and Oregon Energy Efficiency Riders (Rider), Idaho Power base rates, and the annual power cost adjustment (PCA). 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 from all funding sources on DSM-related activities increased by about 6 percent, from \$37 million in 2014 to \$39 million in 2014.

Idaho Power's portfolio of energy efficiency program energy savings for 2015 increased to 162,533 megawatt-hours (MWh), including the estimated Northwest Energy Efficiency Alliance (NEEA) savings. This is a 12-percent increase from the 2015 energy savings of 145,476 MWh and enough to power over 14,000 average-sized homes a year. In 2015, the company's energy efficiency portfolio is cost-effective from both the total resource cost (TRC) test and the utility cost (UC) test perspectives with ratios of 2.32 and 3.57, respectively. The savings from Idaho Power's energy efficiency programs alone (excluding NEEA savings) increased to 140,633 MWh in 2015 from 118,670 MWh in 2014.

Idaho Power successfully operated all three of its demand response programs in 2015. The total demand reduction from the company's programs was 367 megawatts (MW) and an enrolled capacity of 385 MW. The company reduced its demand response costs with a savings to Idaho Power customers of over \$1.6 million from 2014. Almost a million dollars of these savings resulted from Idaho Power's transfer of the commercial/industrial demand response program FlexPeak Management—previously administered by a third-party contractor—to the newly renamed Flex Peak Program fully administered by Idaho Power. Idaho Power's corporate headquarters (CHQ) continued to participate in the Flex Peak Program reducing its peak load when the program was dispatched.

The 2015 savings consisted of 24,532 MWh from the residential sector, 102,074 MWh from the commercial/industrial sector, and 14,027 MWh from the irrigation sector. This represents an 18-percent

increase from 2014 program savings. The industrial Custom Efficiency program contributed 40 percent of Idaho Power's direct program savings, while the residential sector Energy Efficient Lighting program contributed 65 percent of the residential savings.

Beyond its energy efficiency incentive programs, Idaho Power further increased its energy efficiency presence in the community by providing energy efficiency and program information through 93 outreach activities, including events, presentations, trainings, and other activities. In addition, Idaho Power field staff delivered 204 presentations to local organizations, addressing energy efficiency programs and wise energy use. At events and presentations, company staff distributed over 21,000 light-emitting diodes (LED) in custom packaging that highlighted the advantages of energy-efficient lighting and encouraged participation in Idaho Power's myAccount online portal. In 2015, Idaho Power's Community Education team provided 124 presentations of *The Power to Make a Difference* to 3,359 students. The community education representatives (CER) and other staff also completed 26 senior citizen presentations on energy efficiency programs and shared information about saving energy to 944 senior citizens in the company's service area. Additionally, Idaho Power's energy efficiency program managers responded with detailed answers to 300 customer questions about energy efficiency and related topics received via Idaho Power's website.

Since 2008, Commercial Education activities have informed and educated commercial customers regarding energy efficiency, increased awareness of and participation in existing commercial energy efficiency and demand response programs and enhanced customer satisfaction regarding the company's energy efficiency initiatives. Raising the knowledge level of commercial and industrial customers regarding the wise use of energy in their daily operations is important to the continued success of Idaho Power's commercial and industrial energy efficiency programs. Educating commercial customers requires working with and supporting multiple stakeholders and organizations. Examples of key stakeholders and specific activities are explained in the commercial/industrial program descriptions, the Commercial and Industrial NEEA Activities section, and the Commercial Education section.

Idaho Power's internal commitment to energy efficiency and sustainability continued in 2015. Several Idaho Power properties were enhanced in 2015 with the goal of improving energy efficiency. Additional CHQ remodel projects were completed in 2015 to the CHQ's sixth and seventh floors. Remodels continued to incorporate energy efficiency items, such as lower partitions, lighting retrofits, and lighting controls. In 2016, Idaho Power will proceed with the CHQ eighth floor remodel. Idaho Power continued to upgrade the company's substation buildings across the service area.

The *Demand-Side Management 2015 Annual Report* consists of the main document and two supplements. *Supplement 1: Cost-Effectiveness* shows the standard cost-effectiveness tests for Idaho Power programs and includes a table that reports expenses by funding source and cost category. In 2015, the company continued its commitment to third-party evaluation activities. Included in *Supplement 2: Evaluation* are copies of all of Idaho Power's 2015 evaluations, evaluations conducted by its regional partners, customer surveys and reports, Idaho Power's evaluation plans, general energy efficiency research, and demand response research. Additionally, the report and supplements will be provided under Oregon Docket UM 1710 to provide the Public Utility Commission of Oregon (OPUC) and its staff information on the company's DSM programs and expenses.

DSM Programs Performance

Idaho Power offers energy efficiency and demand response opportunities to all major customer sectors: residential, commercial, industrial, and irrigation. The commercial and industrial energy efficiency programs are made available to customers in either of these sectors.

Idaho Power groups its DSM activities into four major categories: energy efficiency, demand response, market transformation, and other programs and activities. The other programs and activities are generally designed to provide customer outreach and education encouraging the efficient use of electricity. These activities are coordinated to advance Idaho Power’s long-term commitment to pursue all prudent cost-effective energy efficiency, an appropriate amount of demand response, and to enhance customer satisfaction.

Figures 1 and 2 show the demand-reduction capacity and historic energy savings overlaid with the company’s DSM expenses.

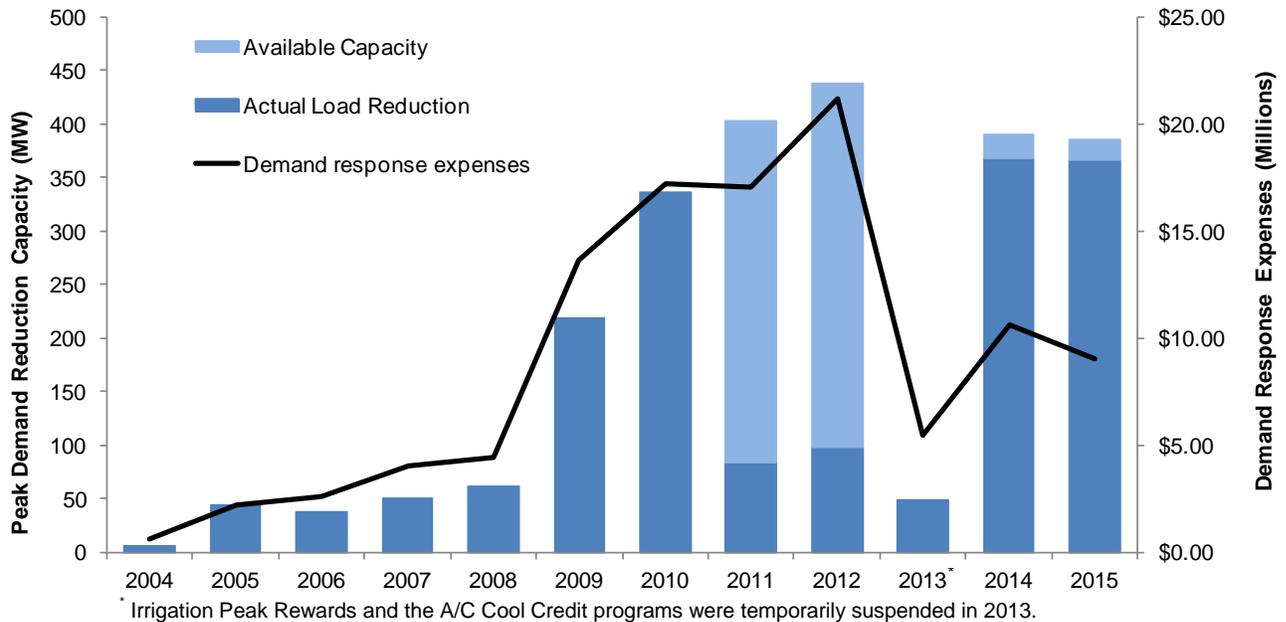


Figure 1. Peak demand-reduction capacity and demand response expenses, 2004–2015 (MW and millions [\$])

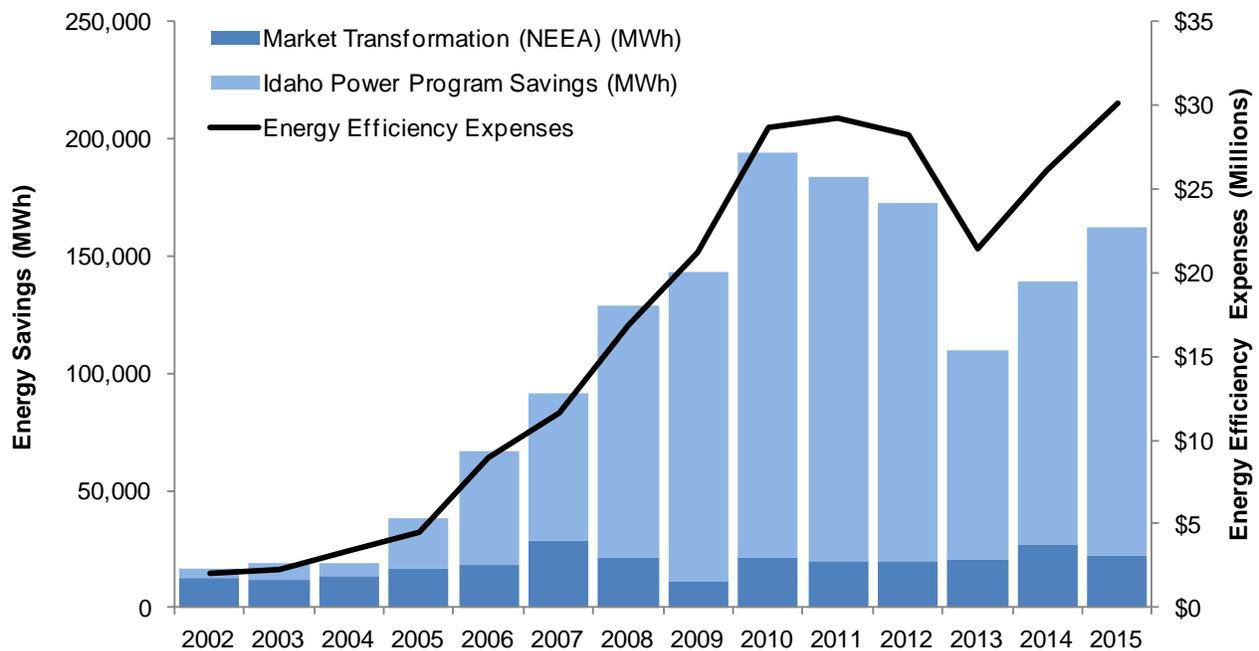


Figure 2. Annual energy savings and energy efficiency program expenses, 2002–2015 (MWh and millions [\$])

Figures 3 and 4 show the company’s total DSM expenses for all funding sources, separated between energy efficiency expenses and demand response expenses.

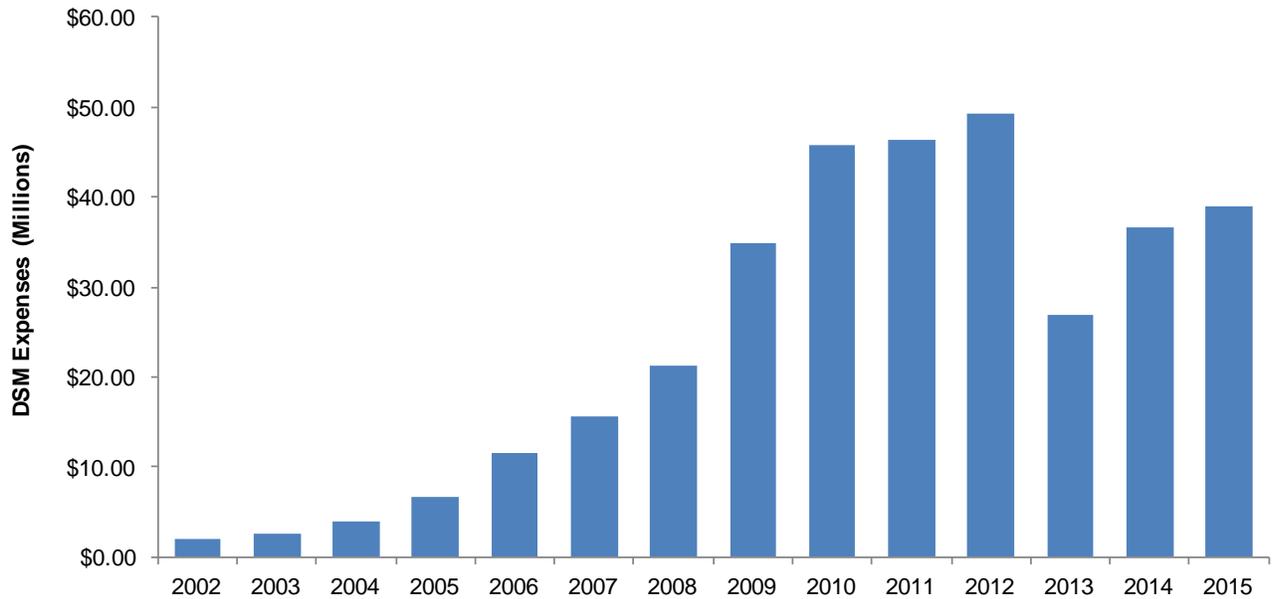


Figure 3. DSM expense history, 2002–2015 (millions [\$])

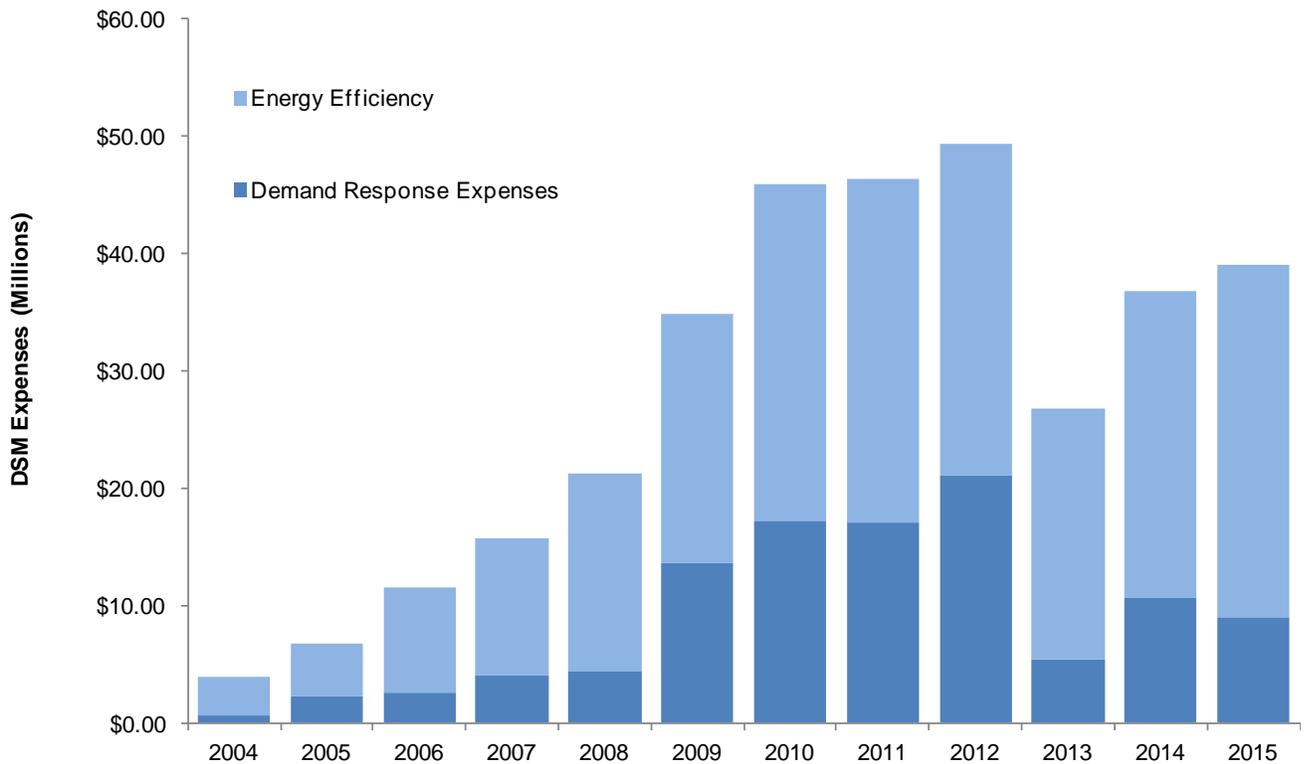


Figure 4. DSM expense history by program type, 2004–2015 (millions [\$])

Energy efficiency and demand response are an important aspect of Idaho Power’s resource planning process. Idaho Power’s 2015 energy savings exceeded the annual savings target identified in Idaho Power’s 2015 IRP. On a cumulative basis, the company’s energy savings have exceeded the IRP targets every year since 2002 when the energy efficiency riders began. For the 2015 IRP, Idaho Power

contracted with a third party to conduct an energy efficiency potential study to estimate the company’s energy efficiency potential from 2015 to 2034. The company included all of the achievable energy efficiency potential in the 2015 IRP. Idaho Power considers this achievable potential as a reasonable 20-year planning estimate. It does not consider the achievable potential as a ceiling limiting energy efficiency acquisition.

Figure 5 shows Idaho Power’s total annual energy efficiency savings in average megawatts (aMW) overlaid with the company’s IRP energy-savings targets (aMW).

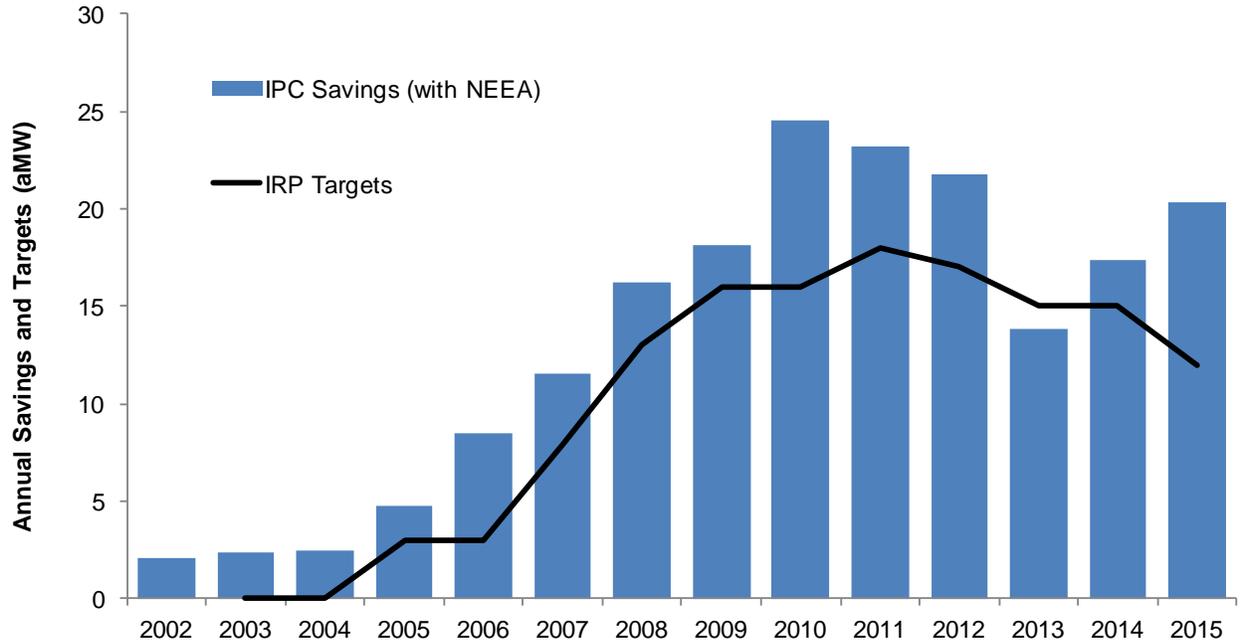


Figure 5. Annual incremental energy efficiency savings (aMW) compared with IRP targets, 2002–2015

Figure 6 shows Idaho Power’s total cumulative energy efficiency savings overlaid with the company’s cumulative IRP energy-savings targets (aMW).

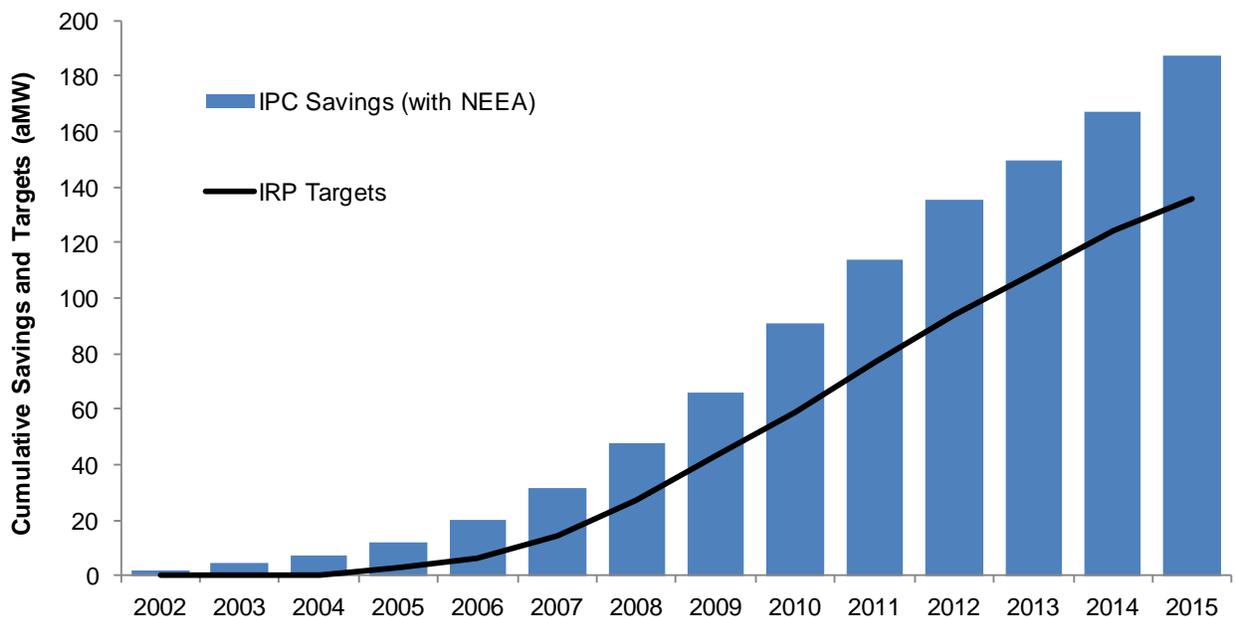


Figure 6. Annual cumulative energy efficiency savings (aMW) compared with IRP targets, 2002–2015

Demand Response Programs

Idaho Power started its modern demand response programs in 2002 and now has over 10 percent of its all-time peak load available under demand response programs. 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 any system peak deficits that exist. Demand response programs are measured by the amount of demand reduction, in MW, available to the company during system peak periods.

In summer 2015, Idaho Power had a combined maximum available demand response capacity of 385 MW at the generation level. The amount of capacity available for demand response varies based on weather, the time of year, and how programs are used and managed. The capacity of 385 MW is calculated using 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 event. This realization rate is expected to be approximately 73 percent of billing demand for Irrigation Peak Rewards and 100 percent of actual load reduction for A/C Cool Credit and the Flex Peak Program. In 2015, the actual non-coincidental load reduction from all three programs was approximately 367 MW. This number was lower than 378 MW (achieved in 2014) primarily because the Irrigation Peak Rewards did not achieve its maximum realization rate. In 2015, southern Idaho had unseasonably warm weather early in spring and some participants had already stopped irrigating when the program was used. On Monday, June 29, 2015, the company used the Irrigation Peak Rewards program and reached a system peak of 3,320 MW. Had the program not been used, the company estimates the load would have been approximately 3,433 MW, which would have exceeded the previous all-time system peak of 3,407 MW.

Energy Efficiency Programs

Idaho Power's energy efficiency programs 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. Energy efficiency programs sometimes include behavioral components, including the Residential Energy Efficiency Education Initiative and the Wastewater Energy Efficiency Cohort offering in the Custom Efficiency program. Energy efficiency programs are available to all customer sectors in Idaho Power's service area. Project measures range from entire residential or commercial building construction to high-efficiency window replacement. Savings from these programs are measured in terms of kilowatt-hour (kWh) or MWh savings. These programs usually supply energy savings throughout the year at different degrees. Idaho Power shapes these savings based on the end use to estimate energy reduction at specific times of the year and day. Idaho Power'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. Custom programs under the irrigation and industrial sectors offer a wide range of unique opportunities for Idaho Power and its customers to design and execute energy-saving projects.

Market Transformation

Market transformation is an effort to 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. Market transformation can also attempt to identify barriers and opportunities to increase the market adoption of efficiency. Idaho Power achieves market transformation savings primarily through its participation in the NEEA. Idaho Power has been a funding member of

NEEA since its inception in 1997. NEEA's role in this process is to look to the future to find emerging opportunities and to create a path forward to make those opportunities a reality in the region.

NEEA's current, five-year funding cycle began in 2015. As early as 2009, Idaho Power expressed a desire to see a change in the way NEEA services were offered in the 2015 to 2019 funding cycle that would differentiate "core" services of market transformation activities from optional services. This way, utilities could elect to support projects and activities that matched their interests and needs. This effort resulted in a 2015 to 2019 NEEA business plan, which is forecast to obtain 145 aMW of regional energy savings at a cost savings of about \$3 million over the next five years to Idaho Power customers as compared to the previous five-year business plan. The NEEA plan also offered some optional programs and activities to prevent overlap of activities when local utilities have the capability to provide the same services at a lower cost or more effectively.

Programs and Activities

Idaho Power recognizes the value of energy efficiency awareness and education in creating behavioral change that helps customers use energy wisely. The goal of other programs and activities is to promote energy efficiency programs, projects, and behavior in customers. These awareness efforts increase customer demand for, and satisfaction with, Idaho Power's programs and activities. These activities include customer outreach, marketing, research, project development, and education programs. This category includes the Residential Energy Efficiency Education Initiative, Easy Savings Program, Commercial Education, and Educational Distributions.

Program Planning Group

In early 2014, Idaho Power convened a Program Planning Group (PPG) to explore new opportunities to expand current DSM programs and offerings. The group consisted of residential program specialists, commercial and industrial engineers, energy efficiency analysts, marketing specialists, energy efficiency program leaders, and the research and analysis leader. The group has expanded to include a departmental specialist and a research assistant. Throughout 2015, the group met regularly to explore new ideas to promote energy efficiency and to evaluate new potential programs and measures. The PPG does not perform program execution. Instead, the group's role is to determine if a measure has energy-saving potential, has market adoption potential, and is potentially cost-effective.

In 2015, Idaho Power incorporated three new ideas from the PPG into the Heating & Cooling Efficiency (H&CE) Program. Included were 1) single-family home duct sealing, which is prescriptive duct-sealing for heat pumps and electric-resistance heated homes; 2) residential electronically commutated motor (ECM), which is the more efficient replacement for failed permanent split capacitor (PSC) motors with ECMs in forced-air systems; and 3) a residential whole house fan pilot, which is the installation of a whole-house fan (WHF) between a home's attic and the conditioned space that displaces forced air and zonal direct expansion cooling. Also in 2015, the company gave LED bulbs to attendees at events for promotional, educational, and market transformation purposes.

In the commercial sector, the company began the water supply cohort—now called the Water Supply Optimization Cohort (WSOC). In September 2015, Idaho Power recruited municipal supply system operators and trained them to identify operation improvements and potential capital projects to improve energy use of their systems. The WSOC will continue through 2016.

Four other PPG ideas were presented to Energy Efficiency Advisory Group (EEAG) and are being implemented in 2016. They are 1) energy efficiency kits mailed out by request; 2) distribution of clothes

drying racks for educational purposes; 3) smart thermostats included in the H&CE Program; and 4) multifamily direct-install project. The multifamily direct install project will be evaluated in 2016 to determine if it can be an ongoing effort. Other program modifications presented to EEAG and incorporated into existing programs were an effort to market to and complete projects for multifamily housing units the Home Improvement Program and the inclusion of non-electrically heated homes into the Home Energy Audit program.

Idaho Power will continue to use the PPG to review, evaluate, and deliver new energy efficiency offerings in 2016 and beyond.

Table 1 provides a list of 2015 DSM programs and their respective sectors, operational type, state each was available, and associated energy savings.

Table 1. 2015 DSM programs by sector, operational type, location, and energy savings/demand reduction

| Program by Sector | Operational Type | State | Savings/Demand Reduction |
|---|-------------------------------|-------|--------------------------|
| Residential | | | |
| A/C Cool Credit..... | Demand Response | ID/OR | 36 MW |
| Easy Savings..... | Energy Efficiency | ID | 625 MWh |
| Education Distributions..... | Energy Efficiency | ID | 1,669 MWh |
| Energy Efficient Lighting..... | Energy Efficiency | ID/OR | 15,876 MWh |
| Energy House Calls..... | Energy Efficiency | ID/OR | 755 MWh |
| ENERGY STAR® Homes Northwest..... | Energy Efficiency | ID/OR | 821 MWh |
| Heating & Cooling Efficiency Program..... | Energy Efficiency | ID/OR | 1,502 MWh |
| Home Energy Audit..... | Energy Efficiency | ID | 136 MWh |
| Home Improvement Program..... | Energy Efficiency | ID | 304 MWh |
| Oregon Residential Weatherization..... | Energy Efficiency | OR | 12 MWh |
| Rebate Advantage..... | Energy Efficiency | ID/OR | 359 MWh |
| Residential Energy Efficiency Education Initiative..... | Other Programs and Activities | ID/OR | n/a |
| See ya later, refrigerator®..... | Energy Efficiency | ID/OR | 720 MWh |
| Shade Tree Project..... | Other Programs and Activities | ID | n/a |
| Simple Steps, Smart Savings™/Home Products Program.... | Energy Efficiency | ID/OR | 771 MWh |
| Weatherization Assistance for Qualified Customers..... | Energy Efficiency | ID/OR | 550 MWh |
| Weatherization Solutions for Eligible Customers..... | Energy Efficiency | ID | 433 MWh |
| Commercial/Industrial | | | |
| Building Efficiency..... | Energy Efficiency | ID/OR | 23,232 MWh |
| Commercial Education..... | Other Programs and Activities | ID/OR | n/a |
| Custom Efficiency..... | Energy Efficiency | ID/OR | 55,247 MWh |
| Easy Upgrades..... | Energy Efficiency | ID/OR | 23,595 MWh |
| Flex Peak Program..... | Demand Response | ID/OR | 26 MW |
| Oregon Commercial Audits..... | Energy Efficiency | OR | n/a |
| Irrigation | | | |
| Irrigation Efficiency Rewards..... | Energy Efficiency | ID/OR | 14,027 MWh |
| Irrigation Peak Rewards..... | Demand Response | ID/OR | 305 MW |
| All Sectors | | | |
| Northwest Energy Efficiency Alliance..... | Market Transformation | ID/OR | 21,900 MWh |

Table 2 shows the 2015 annual energy savings, percent of energy usage, number of customers, and aMW savings associated with each of the DSM program categories. The table also provides a comparison of the 2015 contribution of each sector in terms of energy usage and the number of customers. Unless otherwise noted, all energy savings presented in this report are measured or estimated at the customer's meter, excluding line losses.

Table 2. 2015 program sector summary and energy usage/savings/demand reduction

| | Energy Efficiency Program Impacts ^a | | | | Idaho Power System Sales | | |
|-------------------------------------|--|----------------------|----------------------|---------------------------------------|--------------------------|----------------------------|---------------------|
| | Program Expenses | Energy Savings (kWh) | Average Energy (aMW) | Peak-Load Reduction (MW) ^b | Sector Total (MWh) | Percentage of Energy Usage | Number of Customers |
| Residential | \$ 7,607,478 | 24,531,834 | 2.8 | – | 4,939,269 | 34.87% | 436,102 |
| Commercial/Industrial..... | 15,525,494 | 102,073,910 | 11.7 | – | 7,180,986 | 50.69% | 68,467 |
| Irrigation | 1,835,711 | 14,027,411 | 1.6 | – | 2,046,290 | 14.44% | 20,293 |
| Market Transformation | 2,582,919 | 21,900,000 | 2.5 | – | n/a | n/a | n/a |
| Demand Response..... | 9,000,638 | n/a | n/a | 367 | n/a | n/a | n/a |
| Other Programs and Activities.. | 597,654 | n/a | n/a | – | n/a | n/a | n/a |
| Total Program Expenses | \$ 37,149,893 | 162,533,155 | 19.0 | 367 | 14,166,545 | 100.00% | 524,862 |

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

^b Includes peak-load reduction from both demand response and energy efficiency programs. Includes 9.7% peak line loss assumptions.

Program Evaluation

Idaho Power considers program evaluation an essential component of its DSM operational activities. The company contracts with third-party contractors to conduct impact, process, and other evaluations on a scheduled and as-required basis.

Third-party contracts are generally awarded using a competitive bid process managed by Idaho Power's Strategic Sourcing department. In some cases, research and analysis is conducted internally and managed by Idaho Power's Research and Analysis team within the Customer Relations and Energy Efficiency (CR&EE) department. Third-party evaluations are specifically managed by the company's energy efficiency evaluator.

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, impact and process evaluations, and customer surveys important resources in providing accurate and transparent program-savings estimates. Recommendations and findings from evaluations and research are used to continuously refine Idaho Power's DSM programs.

In 2015, Idaho Power completed six program impact evaluations and three program process evaluations using third-party contractors. Applied Energy Group (AEG) conducted process and impact evaluations of the Home Improvement Program, Ductless Heat Pump Pilot, and See ya later, refrigerator[®] programs.

CLEAResult Consulting, Inc. (CLEAResult), conducted impact evaluations of the Irrigation Peak Rewards, A/C Cool Credit, and Flex Peak Program 2015 demand response events.

In 2015, Idaho Power administered surveys on several programs to measure program satisfaction. Participant surveys were conducted for Easy Upgrades, Home Energy Audit, Shade Tree Project, Weatherization Assistance for Qualified Customers (WAQC), and Weatherization Solutions for Eligible Customers.

Throughout 2015, ADM Associates, Inc. (ADM) made several small revisions to the technical reference manual (TRM) for Building Efficiency and Easy Upgrades. These revisions include additional system types to the heating, ventilation, and air conditioning (HVAC) controls section and an expanded description of eligible equipment for air conditioning (A/C) and heat pump systems. Additionally, ADM updated the savings for measures impacted by the International Energy Conservation (IECC) 2012 code.

Final reports from all evaluations, research, and surveys completed in 2015 and an evaluation schedule are provided in *Supplement 2: Evaluation*.

Customer Satisfaction

In 2015, based on surveys conducted in 2014, Idaho Power ranked fourth out of seven utilities included in the west region midsize segment of the J.D. Power and Associates *2015 Electric Utility Business Customer Satisfaction Study*. Sixty-two percent of the business customer respondents in this study indicated they are aware of Idaho Power's energy efficiency programs, and those customers are more satisfied with Idaho Power than customers who are unaware of the programs.

In 2015, based on surveys conducted in the last six months of 2014 and the first six months of 2015, Idaho Power ranked 4 out of 14 utilities included in the west region midsize segment of the J.D. Power and Associates *2015 Electric Utility Residential Customer Satisfaction Study*. Forty-six percent of the residential respondents in this study indicated they are aware of Idaho Power's energy efficiency programs, and those customers are more satisfied with Idaho Power than customers who are unaware of the programs.

Idaho Power employs Burke, Inc., an independent third-party research vendor, to conduct customer relationship surveys to measure the overall customer relationship and satisfaction with Idaho Power. The Burke Customer Relationship survey measures the satisfaction of a number of aspects of the customer's relationship with Idaho Power, including energy efficiency at a very high level. However, it is not the intent of this survey to measure all aspects of energy efficiency programs offered by Idaho Power.

The 2015 results of Idaho Power's quarterly customer relationship survey showed an increase in overall satisfaction from the previous year. Sixty-two percent of customers indicated their needs are met or exceeded by Idaho Power encouraging energy efficiency among its customers. Figure 7 depicts the annual change in the percent of customers who indicated Idaho Power met or exceeded their needs concerning energy efficiency efforts encouraged by Idaho Power.

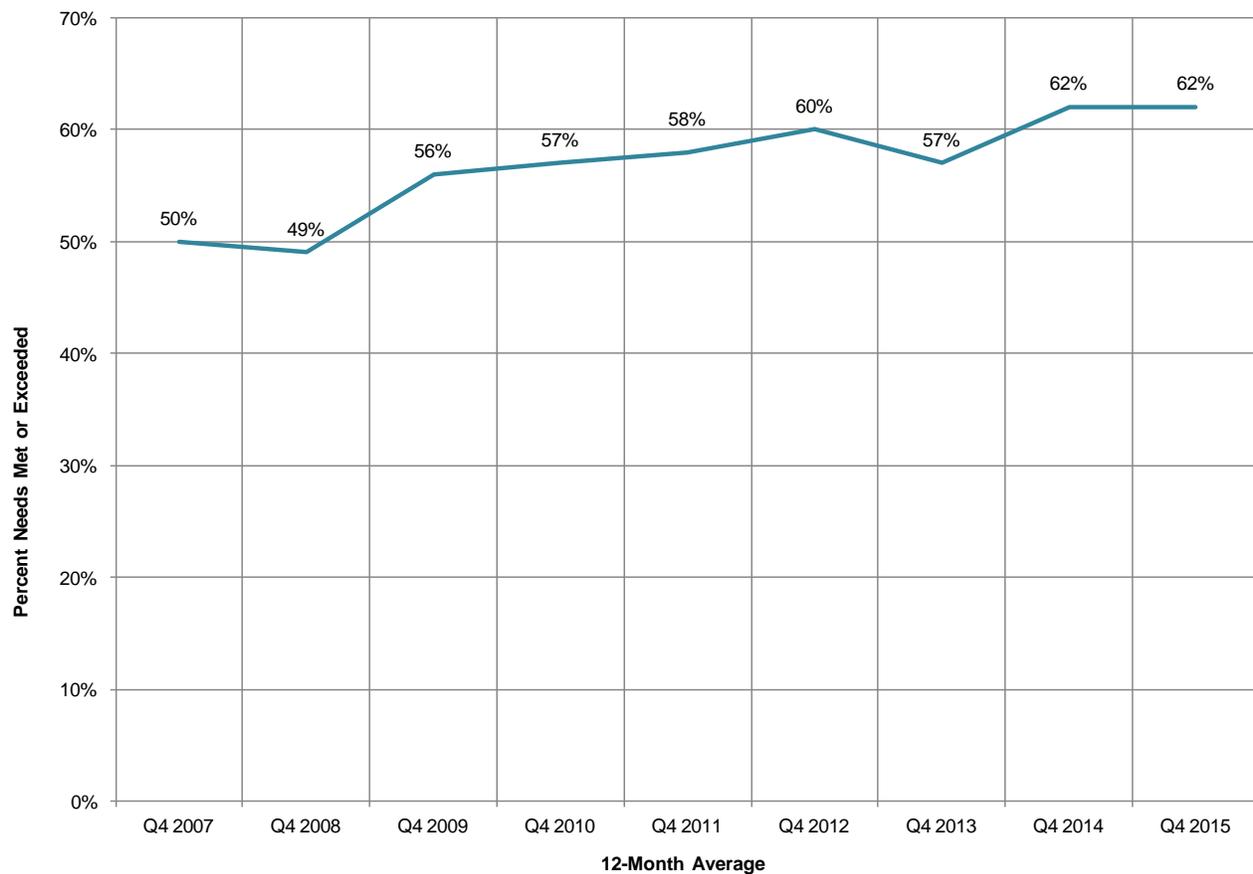


Figure 7. Percent of customers whose needs are met or exceeded by Idaho Power's energy efficiency efforts

Three questions related to energy efficiency programs in the general relationship survey continued in the 2015 survey: 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 2015, 40 percent of the survey respondents across all sectors indicated they participated in at least one Idaho Power energy efficiency program, and 92 percent were "very" or "somewhat" satisfied with the program they participated in.

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. Recruiting for the community was conducted primarily through billing inserts and mailed postcards. The community currently has 818 active members. Idaho Power sends out at least one survey per month to active members. Energy efficiency-related survey topics in 2015 included residential laundry habits, recall of the spring 2015 energy efficiency marketing campaign, and holiday lighting. The average response rate for surveys conducted with the online community is 64.3 percent.

Results of these studies are included in *Supplement 2: Evaluation*.

Idaho Power will not survey most energy efficiency program participants annually. This is due primarily to a concern of 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 will conduct program research periodically (every two to three years), unless there have been major program changes.

Cost-Effectiveness

Cost-effectiveness is of primary importance in the design, implementation, and tracking of energy efficiency and demand response programs. Idaho Power's energy efficiency and demand response opportunities are preliminarily identified through the IRP process. Idaho Power uses third-party energy efficiency potential studies to identify achievable cost-effective energy efficiency potential, which is added to the resources included in the IRP. Idaho Power considers this achievable potential as a reasonable 20-year planning estimate; however, the company does not consider the achievable potential as a ceiling limiting energy efficiency acquisition.

Because of Idaho Power's already diverse portfolio of programs, most of the new potential for energy efficiency in Idaho Power's service area is based on additional measures to be added to programs rather than new programs.

Prior to the actual implementation of energy efficiency or demand response programs, Idaho Power performs a cost-effectiveness analysis to assess whether a potential program design will be cost-effective from the perspective of Idaho Power and its customers. The most current and reliable information available is incorporated in these models. When possible, Idaho Power leverages the experiences of other utilities in the region or throughout the country to help identify specific program parameters.

Idaho Power believes all the cost-effectiveness tests are important and they should be considered in relation to each other. The company's goal is for all programs to have benefit/cost (B/C) ratios greater than one for the TRC test, UC test, and participant cost test (PCT) at the program and measure level where appropriate. If a particular measure or program is pursued even though it will not be cost-effective from each of the three tests, Idaho Power works with EEAG to get input. If the measure or program is offered, the company explains why the measure or program was implemented or continued. The company believes this aligns with the expectations delineated in the OPUC Order No. 94-590.

As a result of the two Energy Efficiency Working Group meetings for stakeholders held in conjunction with Idaho Power's 2015 IRP, the company is continuing its investigation of energy efficiency-related transmission and distribution benefits. Idaho Power began the study in 2015 and will continue the analysis in 2016 as part of analysis conducted preliminary to starting the 2017 IRP process, and is anticipating results in mid to late 2016.

When a new program or measure is considered, Idaho Power launches a pilot or a program to evaluate estimates or assumptions in the cost-effectiveness analysis. Following the implementation of a program, cost-effectiveness analyses are reviewed as new inputs from the actual program activity become available, such as actual program expenses, savings, or participation levels. If measures or programs are determined not to be cost-effective after implementation, the program or measures are re-examined, including using input provided from EEAG.

Appendix 4 contains the UC and TRC B/C ratios using actual cost information over the life of each program through 2015. These B/C ratios are provided as a measure of cost-effectiveness for all Idaho Power energy efficiency programs currently being offered where energy savings are realized. As in 2014, the actual historic savings and expenses are not discounted; only the value of the ongoing savings are discounted to reflect today's dollars. A complete description of Idaho Power's methodology, input assumptions, sources, and results is presented in *Supplement 1: Cost-Effectiveness*.

Idaho Power currently uses the DSM alternative costs from the 2013 IRP. Idaho Power also freezes savings assumptions when the budgets and goals are set for the next calendar year unless code and standards changes or program updates necessitate an immediate need to use updated savings. These assumptions will be discussed in more detail in the cost-effectiveness sections for each program.

As part of the public workshops on Case No. IPC-E-13-14, Idaho Power and stakeholders agreed upon a method for valuing demand response programs. The settlement agreement was approved in Idaho Public Utilities Commission (IPUC) Order No. 32923 and OPUC Order No. 13-482. Per the settlement agreements, the annual cost of operating the three demand response programs for the maximum allowable 60 hours should be no more than \$16.7 million. This \$16.7 million value is the levelized annual cost of a 170-MW simple-cycle combustion turbine (SCCT) over a 20-year life. In 2015, the cost of operating the three demand response programs was \$9 million. Idaho Power estimates that if the three programs were dispatched for the full 60 hours, the total costs would have been approximately \$12.4 million and would have remained below the agreed upon value.

Idaho Power's portfolio of energy efficiency programs is cost-effective, passing both the TRC test and the UC test with ratios of 2.32 and 3.57, respectively. The company's energy efficiency programs' sector portfolios were also cost-effective from a TRC test and UC test perspective.

In 2015, all of Idaho Power's energy efficiency programs were cost-effective, except the Home Improvement Program and the weatherization programs for income-qualified customers.

In 2015, the Home Improvement Program was not cost-effective from the TRC perspective. The RTF reduced savings for single-family home weatherization projects in 2015. With the changes, average savings estimates per project were just under 50 percent of 2014 projects. The lower savings were approved by the RTF in October of 2014 and revised in the spring of 2015. These new savings were a result of the nearly 18-month RTF process to calibrate residential savings models. As a consequence, four of the six measures offered in the Home Improvement Program are no longer cost effective from the TRC perspective. Idaho Power incorporated the new savings for all 2015 projects. In 2016, the company will evaluate the non-cost-effective measures and the impact on program's cost-effectiveness to determine if these measures should be modified or removed from the program. Idaho Power will present possible program modification and seek suggestions from EEAG.

Twenty-four measures in various programs are shown not to be cost-effective from either the UC or TRC perspective. These measures will be discontinued, analyzed for additional non-energy benefits (NEB), modified to increase potential per-unit savings, or monitored to examine their impact on the specific program's overall cost-effectiveness.

Table 3 shows Idaho Power's cost-effectiveness ratios for the UC, TRC, and PCT perspectives for its energy efficiency programs by sector and by portfolio.

Table 3. Idaho Power's cost-effectiveness ratios for the UC, TRC, and PCT perspectives for its energy efficiency programs by sector and by portfolio

| Program/Sector | 2015 B/C Tests | | |
|--|----------------|-------------|-------------|
| | UC | TRC | PCT |
| Easy Savings..... | 2.61 | 2.95 | N/A |
| Educational Distributions | 2.05 | 2.60 | N/A |
| Energy Efficient Lighting | 4.53 | 4.23 | 5.39 |
| Energy House Calls..... | 2.81 | 2.96 | N/A |
| ENERGY STAR® Homes Northwest..... | 2.10 | 1.04 | 1.49 |
| Heating & Cooling Efficiency Program..... | 3.11 | 1.05 | 1.36 |
| Home Improvement Program | 1.91 | 0.67 | 1.05 |
| Rebate Advantage..... | 4.54 | 3.45 | 6.46 |
| See ya later, refrigerator® | 1.21 | 1.53 | N/A |
| Simple Steps, Smart Savings/Home Products Program..... | 3.37 | 4.83 | 6.62 |
| Weatherization Assistance for Qualified Customers..... | 0.54 | 0.43 | N/A |
| Weatherization Solutions for Eligible Customers | 0.45 | 0.50 | N/A |
| Residential Energy Efficiency Sector | 2.31 | 2.11 | 3.82 |
| Building Efficiency..... | 7.63 | 3.70 | 3.56 |
| Custom Efficiency..... | 4.03 | 1.77 | 1.37 |
| Easy Upgrades | 3.85 | 2.20 | 2.51 |
| Commercial/Industrial Energy Efficiency Sector..... | 4.48 | 2.13 | 1.92 |
| Irrigation Efficiency | 6.00 | 3.84 | 3.59 |
| Irrigation Energy Efficiency Sector..... | 6.00 | 3.84 | 3.59 |
| Energy Efficiency Portfolio | 3.57 | 2.32 | 2.61 |

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

Future Plans

Idaho Power will continue to pursue all prudent cost-effective energy efficiency as identified by third-party potential studies and an appropriate amount of demand response based on the demand response settlement agreement approved in IPUC Order No. 32923 and OPUC Order No. 13-482. The forecast level of energy efficiency and the needed level of demand response are included in Idaho Power's biennial IRP planning process. Idaho Power includes all achievable cost-effective energy savings as identified in its potential studies in each IRP. Idaho Power considers this achievable potential a reasonable 20-year planning estimate; however, the company does not consider the achievable potential as a ceiling limiting energy efficiency acquisition. The IRP is a public document developed in a public process that details Idaho Power's strategy for economically maintaining the adequacy of its power system into the future. The IRP process balances reliability, cost, risk, environmental concerns, and efficiency to develop a preferred portfolio of future resources to meet specific energy needs of Idaho Power's customers.

The company will continue to explore new potential as identified in the company's third-party energy efficiency potential study and through other third-party resources and conferences and will continue to assess and develop new program offerings through its PPG. Idaho Power will work in consultation with EEAG to expand or modify its energy efficiency portfolio. Plans for individual programs in 2016 are included under each program's *2016 Program and Marketing Strategies*.

In 2016, Idaho Power will continue to enhance its marketing and outreach efforts as described in the Marketing section and within each program section. Idaho Power will continue to work with NEEA on its market transformation activities during the 2015 to 2019 funding cycle.

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

Idaho Power will incorporate energy efficiency equipment and practices into its own facilities. In 2016, Idaho Power will construct a new Twin Falls Operations Center, build three duplex units between Brownlee and Oxbow dams, construct new crew quarters and an office at Daly Creek, and continue the remodel of its CHQ.

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DSM EXPENDITURES

Funding for DSM programs in 2015 came from several sources. The Idaho and Oregon Rider funds are collected directly from customers on their monthly bills. For 2015, the Idaho Rider was 4 percent of base-rate revenues. The 2015 Oregon Rider was 3 percent of base-rate revenues. Additionally, Idaho demand response program incentives were paid through base rates and the annual PCA mechanism. Energy efficiency and demand response-related expenses not funded through the Rider are included as part of Idaho Power's ongoing operation and maintenance (O&M) costs.

Total DSM expenses funded from all sources were \$39 million in 2015. At the beginning of 2015, the Idaho Rider balance was approximately negative \$0.8 million, and by December 31, 2015, the positive balance was \$6.6 million. At the beginning of the year, the Oregon Rider negative balance was approximately \$3.9 million, and by year-end, the negative balance was \$4.5 million.

Table 4 shows the total expenditures funded by the Idaho Rider, \$28,494,548; the Oregon Rider, \$1,724,118; and non-rider funding, \$8,822,269, resulting in Idaho Power's total DSM expenditures of \$39,040,935. The non-rider funding category includes Idaho Power demand response incentives, WAQC expenses, and O&M costs.

Table 4. 2015 funding source and energy savings

| Funding Source | Expenses | MWh Savings |
|------------------------|----------------------|--------------------|
| Idaho Rider..... | \$ 28,494,548 | 153,979,466 |
| Oregon Rider..... | 1,724,118 | 7,379,131 |
| Non-Rider Funding..... | 8,822,269 | 1,174,559 |
| Total..... | \$ 39,040,935 | 162,533,155 |

Table 5 and Figure 8 indicate 2015 DSM program expenditures by category. The expenses in the Other Expense category include marketing (\$960,055), program evaluation (\$104,007), program training (\$432,375), and program audits (\$115,976). The Purchased Services category includes payments made to NEEA and third-party contractors who help deliver Idaho Power's programs: EnerNOC, Inc., for Irrigation Peak Rewards; CLEAResult Consulting for Energy Efficient Lighting; JACO Environmental, Inc. (JACO), for See ya later, refrigerator[®]; Honeywell for A/C Cool Credit; Cascade Energy, Inc., for Custom Efficiency; Evergreen Consulting and RM Energy Consulting for Easy Upgrades; and contractors for WAQC and Weatherization Solutions for Eligible Customers. The Materials & Equipment category includes items that directly benefit customers: LED bulbs distributed at customer events (\$138,492), and direct install weatherization measures (\$125,000).

Table 5. 2015 DSM program expenditures by category

| | Total | % of Total |
|--|----------------------|-------------|
| Incentive Expense..... | \$ 24,016,364 | 61% |
| Labor/Administrative Expense..... | 3,395,155 | 9% |
| Materials & Equipment..... | 287,424 | 1% |
| Other Expense..... | 1,598,865 | 4% |
| Purchased Services..... | 9,743,128 | 25% |
| Total 2015 Rider Expenditures, by Category..... | \$ 39,040,935 | 100% |

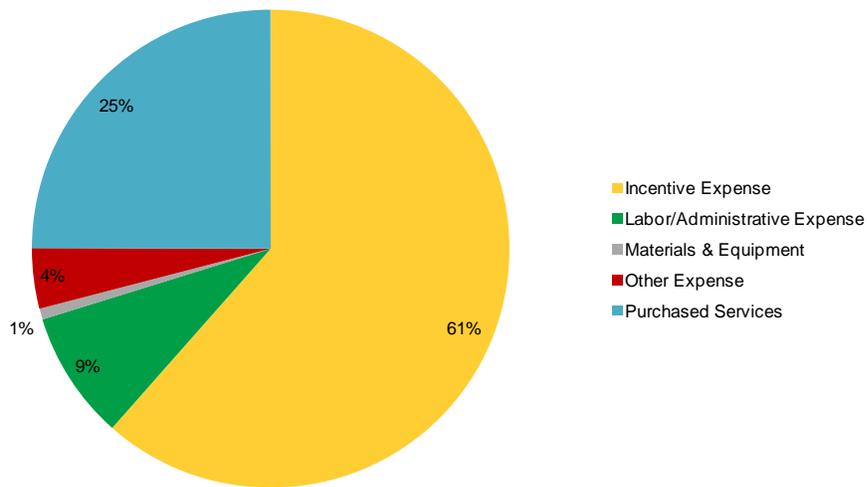


Figure 8. 2015 DSM program expenditures by category

Table 6 and Figure 9 describe the amount and percentage of incentives paid by segment and sector. There are two incentive segments—demand response and energy efficiency—and three sectors—residential, commercial/industrial, and irrigation. The incentives are funded by the Idaho and Oregon Rider, Idaho PCA mechanism, and Idaho Power base rates. Market transformation-related payments made to NEEA and payments made to third-party community action partners under the WAQC and Weatherization Solutions for Eligible Customers programs are not included in the incentive amounts.

Table 6. 2015 DSM program incentives by segment and sector

| | Sector Total | % of Total |
|--------------------------------------|----------------------|-------------|
| DR ^a —Residential | \$ 440,190 | 2% |
| DR—Commercial/Industrial | 487,857 | 2% |
| DR—Irrigation | 6,166,726 | 26% |
| EE ^b —Irrigation..... | 1,497,682 | 6% |
| EE—Residential | 2,972,041 | 12% |
| EE—Commercial/Industrial | 12,451,868 | 52% |
| Total Incentive Expense | \$ 24,016,364 | 100% |

^a DR = demand response

^b EE = energy efficiency

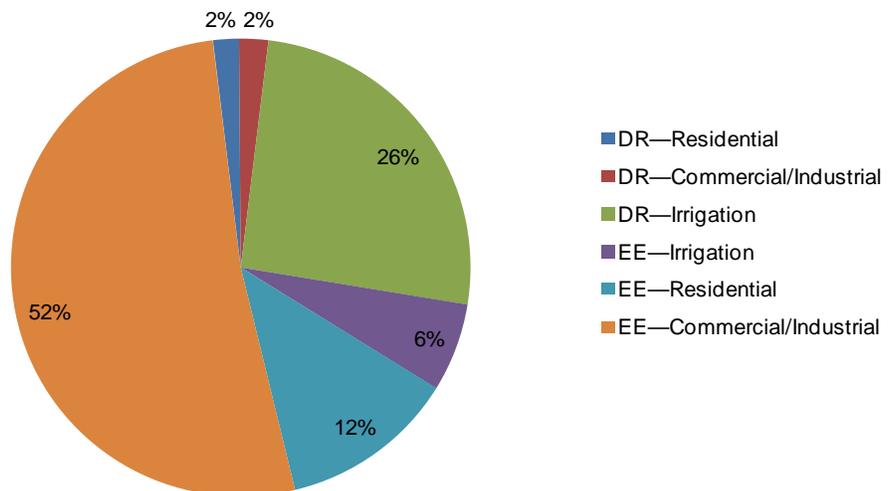


Figure 9. 2015 DSM program incentives by segment and sector

MARKETING

Idaho Power used a variety of marketing, public relations, and research during 2015. The company will continue with new and proven techniques for 2016. The following describes a selection of the methods, approaches, and tactics used by Idaho Power to engage with customers regarding energy efficiency.

Idaho Power added commercial, public, and online radio; network television; an expanded residential awareness campaign; an online customer research panel; and airport signage to the company's marketing tactics in 2015.

In March, June, and September 2015 Idaho Power ran 60-second and 30-second radio spots on major commercial radio stations, Spanish-speaking radio stations, and National Public Radio (NPR) stations in the service area. The message reminded customers they have the power to save energy, save money, and live more comfortably. In March and September, these radio spots ran on Pandora internet radio accessed by mobile and web-based devices. The commercial stations that ran the spots had a variety of station formats to obtain optimum reach, including classic rock, news/talk, country, adult alternative, adult contemporary, and classic hits.

NPR is not measured the same way as commercial radio. Listener numbers do not appear in traditional ratings research. Research from Idaho Power's media buying vendor, Media Partners, finds that 80 percent of public radio listeners say they have a positive impression of a company that supports public radio. Seventy percent of listeners say that underwriting messages have a positive impact on their purchase decisions. Twenty-eight percent of listeners claim to have been directly influenced by public radio in buying a product or service, versus only five to seven percent who claim to have been influenced by messages on a commercial radio station. Media Partners advised that public radio listeners are open to trying new products and services but are less likely to be influenced by the usual means of reaching consumers.

Some of the local NPR stations the company ran advertising on have local data on its listening audience. Media Partners also provided information that Boise State Public Radio (KBSX-FM) broadcasts to more than 100,000 listeners throughout southern and central Idaho's metropolitan and rural areas. Boise State Public Radio's purpose is to be at the civic, cultural, and intellectual forefront of the community to create an informed, engaged public. The Boise State Public Radio listener profile is comprised of 55 percent men and 45 percent women, of which 68 percent are age 35 to 64.

KISU-FM, the public radio station in Pocatello, claims to have more listeners than most commercial stations in the market and is the most listened to public radio station in eastern Idaho. Generally, the audience numbers for non-commercial radio are too small to appear in research, but KISU-FM in Pocatello actually do. The spring 2015 Eastlan Ratings research shows that each week, almost 9,000 people tune in to KISU for at least 15 minutes. Approximately 820 people hear each message. Idaho Power's 44 messages in June on public radio in Pocatello would have delivered approximately 36,080 gross impressions.

KDPI-FM, in Twin Falls, does not appear in the local market ratings. The programming is a mix of music, local news/talk, and nationally syndicated radio programs.

In summary, Idaho Power ran 1,232 60-second radio spots in March, 1,308 30-second radio spots in June, and 1,308 30-second radio spots in September, totaling 3,848 radio spots in 2015.

Commercial radio results indicated that in March, June, and September Idaho Power reached 55 percent of the company's target audience (age 35–64) using a variety of formats to obtain optimum reach, including classic rock, news/talk, country, adult alternative, adult contemporary, and classic hits, including the Spanish radio stations. In commercial radio, frequency is defined as the number of times the target audience should have heard the spots. Frequency is different for each market. Listeners in Idaho Power's targeted geographic markets could have heard the spot 4.9 times in Boise, 3.9 times in Twin Falls, and 6.3 times in Pocatello.

Advertising ran on local NPR stations in Idaho Power's service area and on commercial stations simultaneously. In March, June, and September, NPR stations ran the radio ad 36 times on KBSX-FM in Boise, 40 times on KISU-FM in Pocatello, and 100 times in KDPI-FM in Twin Falls.

Idaho Power ran spots on Pandora internet radio. In March, records show 1,575,135 impressions and 4,065 banner clicks. September yielded 1,487,631 impressions and 3,604 banner clicks.

Another 2015 marketing project was the Residential Energy Efficiency Awareness Campaign. The company received two awards in 2015 for the Residential Energy Efficiency Awareness Campaign from the Idaho Advertising Federation Rockie Awards, which strives to recognize creative excellence in advertising in Idaho. The fall TV spot won a Silver Award, and the complete campaign won a Citation Award.

Figure 10 is an example of the campaign materials in 2015.



Figure 10. Examples from the residential energy efficiency awareness campaign.

The campaign evolved from smaller marketing campaigns completed in 2014, when Idaho Power began using integrated marketing campaigns to increase awareness of the residential programs as a whole, rather than individually. These campaigns use a variety of integrated tactics, including radio, television, newspaper ads, digital ads, Facebook ads, *Connections*, and Idaho Power's website to reach various demographics and use multiple tactics in a one-month period to increase exposure to the message.

The goals of the campaign are to 1) raise awareness of the programs collectively rather than by individual program; 2) use a variety of tactics (television, radio, newspaper ads, online ads, social media, *Connections*) to reach a variety of customer demographics; 3) use all the tactics in the same month to

increase customer exposure to the message; 4) and to let customers know they have options when it comes to saving energy.

In 2015, the company increased the number of customers reached and the number of times they were exposed to the message. The company doubled the budget, added network television, and created new images and messages.

In 2015, Idaho Power extended the marketing reach using new tactics, including radio and network television advertising and new graphics and messaging with a bold, colorful look and feel. Messaging focused on a variety of ways to create an energy-efficient home and Energy Savings Made Easy as a central theme, illustrating how easy energy efficiency can be with Idaho Power's help.

Table 7 provides the cumulative results from the 2015 residential energy efficiency awareness campaign.

Table 7. Cumulative results from 2015 residential energy awareness advertising campaign

| Marketing Tactic | March 2015 | May 2015 ^a | June 2015 | September 2015 |
|---|---------------------|------------------------|---------------------|------------------------|
| Network television reach | | 95% of 25–54 year olds | | 95% of 25–54 year olds |
| Network television frequency* | | 5 | | 5 |
| Radio ads | 1,232 60-second ads | | 1,308 30-second ads | 1,308 30-second ads |
| Radio frequency** | | | | |
| Boise | | | 4.9 | 4.9 |
| Twin Falls | | | 3.9 | 3.9 |
| Pocatello | | | 6.3 | 6.3 |
| NPR | | | | |
| Pandora (clicks) | 4,065 | | | 3,604 |
| Pandora (impressions) | 1,575,135 | | | 1,487,631 |
| Print advertising (impressions) | | 1,123,588 | | 1,109,534 |
| Online advertising (impressions) | | 339,725 | 436,965 | 654,080 |
| Click-through rate (CTR) ^b | | 0.067% | 0.047% | 0.06% |
| Connections (printed) | | 410,804 | | 412,742 |
| Facebook ads (customers reached) | | 190,696 | | 54,407 |
| Facebook frequency* | | 26.77 | | 25.8 |
| idahopower.com/energyefficiency/residential page views | | 5,867 | | 8,057 |

*Number of times target audience saw the spot on average

**Number of times target audience heard the spot on average

^a A portion of the May digital ads, known as online advertising, targeted business and politics, which were the wrong demographic. Therefore, Media Partners gave Idaho Power a rerun credit in June, which explains the difference between the May and September ad campaign results and the additional numbers for June.

^b Generally, in the United States energy/utility industry, the average CTR for digital ads is 0.07 percent.

Idaho Power ran the campaigns primarily in May and September 2015. A radio campaign ran in March to reach the spring home improvement market and in June to extend the message.

Pandora internet radio is a music streaming and automated music recommendation service where the company ran Idaho Power radio spots and banner ads in March and September 2015. Pandora includes a

banner ad, which Pandora reported had 4,065 clicks to Idaho Power’s residential energy efficiency web home page in March.

Additional marketing efforts included *Connections*, distributed with customers’ bills, with both the May and September content devoted to energy efficiency. Sent to more than 415,000 customers in their bills, *Connections* has provided opportunities for energy-efficiency messages beyond the two energy efficiency-focused issues. For example, the December issue featured a story about myAccount, including information about using the online tool to understand energy use and identify ways to save energy. Program-specific articles are noted within the program sections.

In 2015, Idaho Power staff spoke to customers attending the Canyon County Fair in a Voice of the Customer video posted on YouTube. Idaho Power asked willing participants about energy efficiency and what they do to save energy. Some of those excerpts—and other YouTube energy efficiency videos—are available on the Idaho Power website at [youtube.com/user/idahopower](https://www.youtube.com/user/idahopower).

In 2015, public relations efforts included energy efficiency messaging and program information in the company’s weekly *News Briefs* email to all media in Idaho Power’s service area. The purpose of this outreach is to present story ideas to the media for their coverage and provide enough information for media outlets with small staffs to use the item as is. Many reporters followed up on the following broadcast stories and interviews:

- Make a New Year's Resolution to Save Energy—January 5, 2015
- Interactive ‘Home’ Shows Energy-Saving Tips—March 23, 2015
- Turning Up Awareness On Energy Efficiency—May 4, 2015
- New Energy Efficiency Guide Available Now—July 20, 2015
- Ways to Save Energy and Money When It’s Hot—July 13, 2015
- October is National Energy Awareness Month—October 5, 2015
- myAccount Helps Monitor Holiday Electric Use—November 9, 2015
- Prepare Your Home for Winter—November 23, 2015

Idaho Power used network television advertising. In May and September, 95 percent of customers in Idaho Power’s target audience (age 25–54) viewing network television in May saw the commercial an average of five times.

Idaho Power’s public relations efforts established relationships with two regional television news programs—KTVB (Boise and Twin Falls) and KPVI (Pocatello)—for monthly, live, in-studio energy efficiency segments during their news broadcast. The KTVB segment typically airs between 4:00 p.m. and 5:00 p.m. weekdays, and the KPVI segment between 6:30 a.m. and 7:00 a.m. weekdays. Generally, Idaho Power prepares segments of interest to all customers but often focuses on program-related information. All appearances end with a call-to-action about the energy efficiency program or sends viewers to the Idaho Power website for more information. When possible, Idaho Power prepares similar information for both markets—always informative and providing props that demonstrate the topics discussed. The 2015 topics included the following:

- KPVI: Weatherization Solutions (May), heating and cooling (June), energy efficiency quiz (July), See ya later, refrigerator® (August), windows (September), ideas for October Energy Awareness Month (October), and energy-efficient holiday lighting (November)
- KTVB: Weather-stripping (January), See ya later, refrigerator® (March), air sealing/caulking (April), heating and cooling (May), energy efficiency quiz (June), top seven ideas for October Energy Awareness Month (September), and energy-efficient holiday lighting (November)

On Facebook, Idaho Power reached 190,696 people with 5,860 clicks to the Idaho Power website in May. Each person Idaho Power reached saw the ad 26.77 times. In September, the company reached 183,974 people with 6,079 clicks to the Idaho Power website. Each person the company reached saw the ad 25.8 times.

Print advertising ran in all the major daily newspapers and the weekly newspapers throughout the service area. The ads conveyed individual energy efficiency programs or tips to customers, such as using insulation to keep cool air in and hot air out in summer.

The response to the campaign was measured using Idaho Power's **empowered** community, an online panel of over 800 customers asked to share perceptions and feedback on a variety of topics each month. The following results were obtained regarding the May Energy Efficiency Residential Awareness Campaign:

- Twenty-eight percent of respondents remember seeing or hearing one of the ads from television, radio, print, digital, or social media.
- Fifty-four percent of respondents recalled the television ads, the highest recall among respondents.
- Over 84 percent of respondents indicated they are “very likely” or “somewhat likely” to make energy-saving changes in their home after seeing the ads,
- Over 84 percent are “very interested” or “somewhat interested” in more information about energy savings programs.
- Seventy-nine percent of the respondents who recalled seeing or hearing the ads felt positive about the ads they saw or heard.

A copy of the results of the study is located in *Supplement 2: Evaluation*.

Idaho Power tracked the number of page views to the Residential Energy Efficiency home page on the company's website. Page views ranged from 1,964 in April to 8,057 in September and totaled 42,797 in 2015. The company 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 being counted.

To build marketing networks and learn what works in other regions, Idaho Power staff met with counterparts at Portland General Electric in Portland, Oregon in June. The company attended the E Source Utility Marketing Executive Council and the E Source Forum held in October in Denver, Colorado. In April 2015, Idaho Power's Corporate Communications director met with a counterpart at Avista to network and discuss best practices in energy efficiency marketing.

Idaho Power used airport signage as a new tactic in 2015. Each year, 2.8 million people travel through the Boise Airport. Forty-five percent are visitors, 55 percent are residents, and 42 percent are business travelers. To reach the business customer, Idaho Power purchased two backlit display ads and placed one ad at the baggage claim, which garners 1.8 million impressions annually, and the other ad in the main concourse, which garners 2.1 million impressions annually.

A variety of print ads ran in 2015, promoting the energy efficiency programs in sectors (residential, commercial/industrial, and irrigation) and specific programs. From the Farm and Ranch edition of the *Argus Observer* displaying the Irrigation Efficiency Rewards program to *Horizon Air Magazine* advertising all of the commercial energy efficiency programs, Idaho Power bought ads to capture the target audience's attention. Print ads ran in daily and weekly newspapers, trade publications, special-interest magazines, newspapers and booklets, chamber of commerce newsletters, association newsletters, association event programs, conference publications, business publications, and association membership directories. The following programs ran print ads: H&CE Program, Weatherization Solutions for Eligible Customers, ENERGY STAR[®] Homes Northwest, Irrigation Efficiency Rewards, Building Efficiency, Custom Efficiency, Easy Upgrades, DHP Pilot, and Home Improvement Program. Additional ads encompassed all of the energy efficiency residential and commercial programs.

Eight percent of the company's total social media content promoted energy efficiency in 2015. Idaho Power distributed 131 messages about energy efficiency via Twitter and Facebook, approximately one energy efficiency message every three days.

The contractor portal, which launched in 2014 for participating contractor use, remained available in 2015. The portal provides pre-designed printable marketing collateral. Though the portal was available to participating contractors in the H&CE Program and the Home Improvement Program, the portal did not experience activity in 2015. Idaho Power will monitor the contractor portal and have the customer representatives (CR) continue to promote it to the participating contractors that are in the H&CE Program and the Home Improvement Program. The CRs will remind them that the portal offers pre-designed marketing collateral printable for their use and the benefits of using this portal.

The company will continue to monitor the contractor portal for its effectiveness for participating contractors and make changes as needed.

Idaho Power promotes energy efficiency through the company's *Energy@Work Newsletter*. Written for small- and medium-sized business customers, Idaho Power published this newsletter in July and December 2015. Content included information on reliability improvements, use of myAccount, future energy supply, online outage information, and commercial customer training options.

NEEA and Idaho Power held regular meetings throughout 2015 to coordinate, collaborate, and facilitate marketing. Monthly meetings were held via conference call, and meetings in person occurred in June in Portland and December in Boise. All marketing activities are reviewed each month for progress, results, and collaborative opportunities. Marketing with NEEA was also reviewed, such as the DHP point-of-purchase tactics in Lowe's stores.

Marketing specialists attended EEAG meetings in February, May, August, and November 2015. At each meeting, a binder with all marketing collateral delivered to customers in the previous quarter was reviewed by EEAG members.

At the February 2015 EEAG meeting, the plans for the 2015 Residential Energy Efficiency Awareness Campaign were shared with the group, as well as marketing tactics being used at the Boise Airport,

March radio spots, and public relations tactics, such as monthly on-air television (KTVB in Boise and KPVI in Pocatello) appearances to discuss energy efficiency. In addition, activities with NEEA were discussed, including ENERY STAR Homes Northwest, DHPs, and heat pump water heaters.

In the May 2015 EEAG meeting, Idaho Power discussed social media's role in marketing energy efficiency. The new messaging and design for the 2015 Residential Energy Awareness Campaign was shown to the group, including television, print, digital and Facebook ads.

Marketing with NEEA was also reviewed at the May EEAG meeting, such as the DHP point-of-purchase tactics in Lowe's stores. City bus signage for Weatherization Solutions for Eligible Customers, a new tactic, was shown to the group.

At the EEAG meeting in August 2015, the following items were discussed with EEAG: progress on an adaptive and responsive website, sub-branding, and the continuation of public relations opportunities especially the television appearances on KTVB in Boise and KPVI in Pocatello. Results from the May Residential Energy Efficiency Awareness Campaign were shared with the group, as well as anticipated numbers from the September Residential Energy Efficiency Awareness Campaign. An 18-month advertising and outreach study was shared with EEAG showing that 44 percent of all ads in 2014 were for energy efficiency.

In the November 2015 EEAG meetings, the company discussed using the **empowered** community/online panel in early 2016 to look at customers' motivations to participate in energy efficiency. Additions to the Residential Energy Efficiency Awareness Campaign for 2016 were discussed including direct mail, bill inserts and potentially a challenge for energy efficiency prizes. The success of using Facebook boosted posts was also discussed.

Internally in 2015, the company experienced staff turnover in the marketing team with one of the two marketing specialists resigning, requiring shifting workload and responsibilities. In fall 2015, new staff was hired and assignment of responsibilities were reassessed.

In 2016, Idaho Power marketing department plans on several approaches including the Residential Energy Efficiency Awareness Campaign, print materials, dedicated weekly social media posts, and website enhancements.

In 2016, the Residential Energy Efficiency Awareness Campaign will run for four months as opposed to the two months it ran in 2015, providing more frequent exposure to the message Energy Savings Made Easy, a central theme, illustrating how easy energy efficiency can be with Idaho Power's help. The company is creating a stronger call to action on the digital campaigns to increase the CTR. New elements under consideration to bring more customer engagement to the campaign are bill inserts, direct mail, and potentially a promotional challenge, such as to win an energy-efficient appliance.

In 2016, all *Energy@Work Newsletter* issues will start with a customer's success story feature article.

Idaho Power will continue to redesign its website to move to an adaptive framework. The company's interactive approach, which began with myAccount in 2015, is scheduled for completion by first quarter 2017. Idaho Power's new adaptive site will greatly enhance navigation and ease of finding energy efficiency program information. An adaptive website recognizes the device accessing the website and automatically responds or adapts to the dimensions of that device (e.g, a smart phone). Future releases will be responsive/adaptive to tablets and mini tablets.

In 2016, the company will expand its marketing efforts by dedicating weekly social media posts to energy efficiency. Idaho Power will use a form of paid media where the ad matches the look and function of the platform (i.e., newspaper) it appears on and digital ads to promote its energy efficiency guide. Additionally, the company will expand the duration and scope of its integrated energy-savings campaign.

Also in 2016, the marketing team will begin exploring a consistent look and feel for all residential program materials for possible implementation in 2017. The process starts with testing customers' motivations for participating in energy-efficient campaigns with the online panel.

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 14 members from Idaho Power's service area and the Pacific Northwest. Members represent a cross-section of customers from the residential, industrial, commercial, and irrigation sectors, as well as representatives for seniors, low-income individuals, environmental organizations, state agencies, public utility commissions, and Idaho Power. EEAG meetings are generally open to the public and attract a diverse audience. Idaho Power appreciates the input from EEAG and acknowledges the commitment of time and resources of individual members to participate in EEAG meetings and activities.

EEAG met four times in 2015: February 19, May 6, August 26, and November 5. Additionally, EEAG held a conference call on January 9, 2015. During these meetings, Idaho Power discussed and requested feedback on new program ideas and new measure proposals, marketing methods, and specific measure details; provided a status of the Idaho and Oregon Rider funding and expenses; updated ongoing programs and projects; and supplied general information on DSM issues and important issues occurring in the region. Idaho Power relies on input from EEAG to provide a customer and public-interest review of energy efficiency and demand response programs and expenses. The notes from the 2015 EEAG meetings are included in *Supplement 2: Evaluation*.

On January 9, 2015, EEAG members participated in a confidential conference call to discuss the existing FlexPeak Management program that was managed by a third-party contractor. The company wanted feedback as to whether or not Idaho Power should renew the contract or administer the program in-house.

During the February 19, 2015, EEAG meeting, Idaho Power introduced the new professional facilitator for the 2015 EEAG meetings. At the meeting, Idaho Power described the company's new online community, **empowered** community, launched by Idaho Power in 2015. Idaho Power asked for feedback and ideas on options to include in the energy efficiency kits. Members provided feedback and asked multiple follow-up questions. The company also asked EEAG for feedback regarding combining the commercial and industrial programs. Members were generally supportive of the idea and provided feedback.

At the May 6, 2015, EEAG meeting, CLEAResult presented results of the impact evaluations on the A/C Cool Credit and Irrigation Peak Rewards programs. Idaho Power sought feedback from the group on three programs: Weatherization Solutions for Eligible Customers, See ya later, refrigerator[®], and Home Products Program with Simple Steps, Smart Savings[™] promotion. The group provided good feedback and ideas for Weatherization Solutions for Eligible Customers and See ya later, refrigerator[®] and was supportive of the company participating in the Home Products—Simple Steps promotion. The company also asked EEAG for feedback regarding a new measure under consideration for the H&CE Program. The group was supportive of Idaho Power starting this as a pilot program.

The August 26, 2015, EEAG meeting highlighted the preliminary year-to-date energy savings of each program. There was a discussion focused on the IRP process. Idaho Power requested feedback from the group on existing programs and new opportunities for smart thermostats, the Home Improvement Program, and Home Energy Audit program. Members sought more details and provided suggestions to the company. The company also asked EEAG for suggestions or ideas to increase participation in the Flex Peak Program for the small commercial customer and if the company should market to additional customer groups for A/C Cool Credit program.

During the November 5, 2015 EEAG meeting, the AEG presented the results of the impact and process evaluations for See ya later, refrigerator[®], Home Improvement Program, and the DHP Pilot. Idaho Power sought ideas from EEAG for a new name for the combining of the commercial and industrial programs. Idaho Power also asked for feedback from EEAG on potential tariff changes for the Irrigation Efficiency Rewards program. The group was generally in support of the change. The company sought discussion and feedback from EEAG on the following items: residential energy savings kits, multifamily direct install, and drying racks. EEAG provided many ideas and sought more details.

In addition to the 2015 EEAG meetings, Idaho Power solicited further customer input by meeting directly with stakeholder groups in the residential, commercial, industrial, and irrigation customer sectors. Idaho Power also enhanced its relationships with trade allies, trade organizations, and regional groups committed to increasing the use of energy efficiency programs and measures to reduce electricity load.

DSM ANNUAL REPORT STRUCTURE

This main *Demand-Side Management 2015 Annual Report* is organized primarily by the customer sectors residential, commercial/industrial, and irrigation. Each sector has a description, which is followed by information regarding programs in that sector. Each program description includes a table containing 2015 and 2014 program metrics, followed by a general description, 2015 activities, cost-effectiveness, customer satisfaction/evaluation, and 2016 plans. Each program section contains detailed information relating to program changes and the reasoning behind those changes, including information on cost-effectiveness and evaluation. Following the sector and program sections of the report are descriptions of Idaho Power's activities in market transformation, other programs and activities, and Idaho Power's regulatory initiatives. Appendices 1 through 5 follow the written sections and contain a table on 2015 expenses and savings and historic information for all energy efficiency programs and demand response activities at Idaho Power.

Idaho Power currently divides its service area into three geographic regions: 1) Canyon–West, which combines the former Canyon and Western regions; 2) Capital, which retains the same geographic area; and 3) South–East, which combines the former Southern and Eastern regions.

Appendices 1 through 4 contain financial, energy savings, demand reduction, levelized costs, and program-life B/C ratios from the UC and TRC perspectives. Appendix 5 contains detailed financial and energy-savings information separated by Idaho Power's two jurisdictions, Idaho and Oregon.

Included again this year are two supplements and an attached CD. *Supplement 1: Cost-Effectiveness* contains detailed annual cost-effectiveness information by program and energy-saving measures, as well as detailed financial information separated by expense category and jurisdiction. Provided in Supplement 1 are the B/C ratios from the UC, TRC, ratepayer impact measure test (RIM), and PCT perspectives. As of 2015, Idaho Power is using the DSM alternate costs and other financial inputs from Idaho Power's 2013 IRP.

Supplement 2: Evaluation contains Idaho Power's evaluation plans, copies of completed program evaluation reports, research reports, and reports created by Idaho Power or third parties. A CD containing market progress evaluation reports (MPER) and other reports provided by NEEA is attached to Supplement 2.

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RESIDENTIAL SECTOR OVERVIEW

Description

Idaho Power and its approximately 2,100 employees serve more than one million residents in southern Idaho and eastern Oregon. At the close of 2015, the company was serving 436,102 residential customers in its service area. During 2015, Idaho Power continued to see a steady increase of residential customers adding 7,808 customers. Compared to 2014, the company added 1,702 more customers in 2015.

The Boise and southern Idaho economy remains strong. The company is seeing a steady increase of new residential customers and more housing construction. The residential segment represented 35 percent of Idaho Power's total electricity usage and contributed 42 percent of total revenue for the company.

Residential customers used 1.9 percent less energy during 2015 than in 2014. This lower usage can be attributed to a variety of reasons, including, but not limited to, milder temperatures, energy efficiency program activities and customer awareness of energy efficiency. Idaho Power also continued its education and promotion of energy efficiency programs/information to all residential customers through a variety of marketing channels during the year. Idaho Power's marketing efforts are described in the Marketing and individual program sections of this report.

Idaho Power's peak demand during 2015 was 3,402 MW on June 30 at 4:00 p.m., the magnitude of which was diminished by the deployment of the A/C Cool Credit program and Flex Peak Program, which decreased load by about 60 MW during the peak-load period. Idaho Power's all-time system peak of 3,407 MW occurred on July 2, 2014. The company estimates that it would have achieved a new system peak absent the deployment of the Irrigation Peak Rewards program on June 29, 2015.

Table 8 shows a summary of 2015 participants, costs, and savings from the residential energy efficiency programs.

Programs

Table 8. 2015 residential program summary

| Program | Participants | Total Cost | | Savings | |
|--|----------------------------------|---------------------|----------------------|---------------------|------------------|
| | | Utility | Resource | Annual Energy (kWh) | Peak Demand (MW) |
| Demand Response | | | | | |
| A/C Cool Credit | 29,000 participants | \$ 1,148,935 | \$ 1,148,935 | | 36 |
| Total | | \$ 1,148,935 | \$ 1,148,935 | | 36 |
| Energy Efficiency | | | | | |
| Easy Savings | 2,068 kits | \$ 127,477 | \$127,477 | 624,536 | |
| Education Distributions..... | 28,197 kits/bulbs | 432,185 | 432,185 | 1,669,495 | |
| Energy Efficient Lighting..... | 1,343,255 bulbs | 2,063,383 | 4,428,676 | 15,876,117 | |
| Energy House Calls | 362 homes | 214,103 | 214,103 | 754,646 | |
| ENERGY STAR® Homes Northwest..... | 598 homes | 653,674 | 1,412,126 | 773,812 | |
| ENERGY STAR® Homes Northwest (gas heated) | 69 homes | | | 46,872 | |
| Heating & Cooling Efficiency Program..... | 427 projects | 626,369 | 2,064,055 | 1,502,172 | |
| Home Energy Audit | 351 homes | 201,957 | 236,706 | 136,002 | |
| Home Improvement Program | 408 homes | 272,509 | 893,731 | 303,580 | |
| Oregon Residential Weatherization | 19 homes | 5,808 | 10,388 | 11,910 | |
| Rebate Advantage | 58 homes | 85,438 | 117,322 | 358,683 | |
| See ya later, refrigerator® | 1,630 refrigerators/freezers | 227,179 | 227,179 | 720,208 | |
| Simple Steps, Smart Savings™ / Home Products Program..... | 9,343 appliances/ showerheads | 139,096 | 408,032 | 770,822 | |
| Weatherization Assistance for Qualified Customers | 243 homes/non-profits | 1,315,032 | 2,119,801 | 550,021 | |
| Weatherization Solutions for Eligible Customers | 171 homes | 1,243,269 | 1,243,269 | 432,958 | |
| Total | | \$ 7,607,478 | \$ 13,935,050 | 24,531,834 | |

Notes:

See Appendix 3 for notes on methodology and column definitions.

Totals may not add up due to rounding.

In 2015, the company modified a few residential programs. The DHP Pilot was incorporated into the H&CE Program, and three new measures were added; the Home Products Program was terminated in early 2015 and replaced by a new program titled Simple Steps, Smart Savings; and Students for Energy Efficiency Kit (SEEK) and LED giveaways were incorporated into the new Educational Distributions program.

Idaho Power markets its residential energy efficiency programs to its customers through online advertising, social media, print ads, radio and television commercials, media and public relations, success stories, brochures, sponsorships, direct mail, retail events, customer visits, meetings with trade allies and contractors, participation in home and garden shows, remodeling events, and county fairs. The company website is an important marketing tool to lead customer to energy efficiency websites. Bill communication included monthly bill inserts and messages and articles in the *Connections* customer newsletter, including two issues (May and September) devoted entirely to energy efficiency topics and programs. *Connections* is mailed in bills monthly to approximately 415,000 customers and available online to those who request paperless billing. Energy efficiency guides included the *Spring/Summer Energy Efficiency Guide* (July) and the *Fall/Winter Energy Efficiency Guide* (January 2016). Table 9 shows a summary of bill inserts by month, program, topic, and number of inserts sent.

Table 9. Summary of bill communications sent in 2015

| Month | Program/Topic | Total Inserts |
|-----------|---|---------------|
| January | Home Energy Audit | 99,065 |
| | myAccount..... | 378,537 |
| February | empowered community | 369,130 |
| | Energy House Calls/Rebate Advantage | 369,129 |
| | Commercial Industrial Energy Efficiency Programs..... | 40,389 |
| | Weatherization Solutions for Eligible Customers..... | 353,720 |
| March | Home Energy Audit | 10,124 |
| | See ya later, refrigerator [®] | 366,827 |
| April | Home Improvement Program | 355,883 |
| | See ya later, refrigerator [®] | 367,617 |
| May | Heat Pumps..... | 349,889 |
| | ENERGY STAR [®] Homes Northwest | 368,851 |
| | Energy Audits and Home Weatherization Financing (OR) | 11,742 |
| June | See ya later, refrigerator [®] | 369,296 |
| July | Home Improvement Program | 358,180 |
| | See ya later, refrigerator [®] / Weatherization Solutions for Eligible Customers | 354,484 |
| August | See ya later, refrigerator [®] / Weatherization Solutions for Eligible Customers | 355,503 |
| September | Heating & Cooling Efficiency Program | 371,130 |
| | Home Improvement Program/Energy House Calls..... | 359,356 |
| October | See ya later, refrigerator [®] | 372,023 |
| | Commercial and Industrial energy efficiency programs..... | 39,842 |
| | Weatherization Solutions for Eligible Customers..... | 356,514 |
| November | Home Energy Audit | 80,391 |

The company received favorable feedback from customers and employees related to the mobile capability of www.idahopower.com during 2015.

Presentations to community groups and businesses continued to be a major emphasis during 2015. Idaho Power CRs and CERs made hundreds of presentations in communities served by the company.

Idaho Power conducts the Burke Customer Relationship survey each year. In 2015, 51 percent of residential survey respondents indicated Idaho Power is meeting or exceeding their needs with information on how to use energy wisely and efficiently.

Sixty-one percent of residential respondents indicated Idaho Power is meeting or exceeding their needs by encouraging energy efficiency with its customers. Forty-six percent of Idaho Power residential customers surveyed in 2015 indicated Idaho Power is meeting or exceeding their needs in offering energy efficiency programs, and 29 percent 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, 83 percent are “very” or “somewhat” satisfied with the program.

Forty-six percent of the Idaho Power residential customers included in the *2015 J.D. Power and Associates Electric Utility Residential Customer Satisfaction Study* indicated they are familiar with Idaho Power’s energy efficiency programs.

In 2015, the **empowered** community was surveyed regarding residential laundry habits, customer recall of the spring 2015 energy efficiency marketing campaign, and holiday lighting. Results of these studies are included in *Supplement 2: Evaluation*.

A/C Cool Credit

| | 2015 | 2014 |
|--|-------------|-------------|
| Participation and Savings | | |
| Participants (participants) | 29,000 | 29,642 |
| Energy Savings (kWh) | n/a | n/a |
| Demand Reduction (MW) | 36 | 44 |
| Program Costs by Funding Source | | |
| Idaho Energy Efficiency Rider | \$659,471 | \$962,286 |
| Oregon Energy Efficiency Rider | \$45,825 | \$56,988 |
| Idaho Power Funds | \$443,639 | \$446,372 |
| Total Program Costs—All Sources | \$1,148,935 | \$1,465,646 |
| Program Levelized Costs | | |
| Utility Levelized Cost (\$/kWh) | n/a | n/a |
| Total Resource Levelized Cost (\$/kWh) | n/a | n/a |
| Benefit/Cost Ratios | | |
| Utility Benefit/Cost Ratio | n/a | |
| Total Resource Benefit/Cost Ratio | 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 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.

The cycling season is June 15 through August 15. The maximum number of cycling hours available per season is 60 hours, with a minimum of three cycling events per season. The incentive is \$15 per season, paid as a \$5 bill credit on the July, August, and September bills. The program is not available on weekends or holidays, and the maximum length of an event is four hours.

Customers' A/C units are controlled using switches that communicate by powerline carrier (PLC). A switch is installed on each customer's A/C unit and allows Idaho Power to cycle the customer's A/C unit during a cycling event.

2015 Program Marketing Activities

Per the settlement agreement reached in Idaho Case No. IPC-E-13-14 and Oregon Case No. UM 1653, Idaho Power did not actively market the A/C Cool Credit program in 2015; however, customer communication and retention was active. Idaho Power attempted to recruit customers who had moved into a home that already had a load control device installed and recruit previous participants who changed residences to a location that did not have a load-control device. The existing means of recruiting these two groups—which involved calling, sending letters, visiting the participants' locations if needed, and leaving door hangers for those not home—was supplemented in 2015 with the use of specially created postcards.

Before the cycling season began, participants were sent a postcard reminding them of the program specifics. Three cycling events occurred in 2015 on June 30, July 21, and July 31. At the end of the summer, a thank-you postcard was sent to program participants.

Idaho Power's weekly *News Briefs*—an email to all media in the service area—mentioned the success of the company's demand response programs, including A/C Cool Credit, in helping reduce the peak load during the summer season topics included *High Summer Electricity Demand Hits Early* (June 29) and *Customers Helped Reduce Peak Electrical Loads* (July 13).

Cost-Effectiveness

As part of the public workshops in conjunction with Case No. IPC-E-13-14 and UM 1653, Idaho Power and other stakeholders agreed on a new method for valuing demand response. The settlement agreement, as approved in IPUC Order No. 32923 and OPUC Order No. 13-482, defined that the annual cost of operating the three demand response programs for the maximum allowable 60 hours must not be more than \$16.7 million. This \$16.7 million value is the levelized annual cost of a 170-MW deferred resource over a 20-year life. In 2015, the cost of operating the three demand response programs was \$9 million. It is estimated that if the three programs were dispatched for the full 60 hours, the total costs would have been approximately \$12.4 million, and the programs would have remained cost-effective.

The A/C Cool Credit program was dispatched for 9 event hours and achieved a maximum demand reduction of 36 MW. The total expense for 2015 was \$1,148,935 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.

Customer Satisfaction and Evaluations

Idaho Power contracted with CLEAResult to complete an impact evaluation of the 2015 A/C Cool Credit program. The goal of the evaluation was to estimate demand reduction achieved during three curtailment events and update the existing predictive model to incorporate results from the 2015 curtailment events. CLEAResult completed analyses of curtailment events held on June 30, July 21, and July 31, each with a three-hour duration. Results of the analyses showed maximum single-hour demand reductions of 1.11 kilowatts (kW), 0.65 kW, and 1.04 kW per participant, respectively, for the three events. The average hourly demand reduction was 1.04 kW, 0.62 kW, and 0.74 kW per participant, respectively. The results of the curtailment event analyses showed maximum generation-level demand reductions of 36.3, 21.0, and 23.8 MW, respectively, for the three events. The results of the curtailment event analyses showed maximum meter-level demand reductions of 33.1, 19.1, and 21.7 MW, respectively, for the three events. The results of the impact evaluation demonstrated that Idaho Power's A/C Cool Credit program functions as intended, and if properly maintained, can be relied on to provide dispatchable demand reduction to the electricity grid. Due to the distinct weather patterns between the Boise and Pocatello/Twin Falls regions, each curtailment event analysis included region-specific results. A copy of the report is included in *Supplement 2: Evaluation*.

2016 Program and Marketing Strategies

Per the terms of the settlement agreement, Idaho Power will not actively promote the A/C Cool Credit program to solicit new participants through marketing but will accept new participants who request to participate, regardless of whether they were previous participants in the program. Attempts will continue to be made 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

| | 2015 | 2014 |
|--|-----------|------|
| Participation and Savings | | |
| Participants (kits) | 2,068 | n/a |
| Energy Savings (kWh) | 624,536 | n/a |
| Demand Reduction (MW) | n/a | n/a |
| Program Costs by Funding Source | | |
| Idaho Energy Efficiency Rider | \$0 | n/a |
| Oregon Energy Efficiency Rider | \$0 | n/a |
| Idaho Power Funds | \$127,477 | n/a |
| Total Program Costs—All Sources | \$127,477 | n/a |
| Program Levelized Costs | | |
| Utility Levelized Cost (\$/kWh) | \$0.021 | n/a |
| Total Resource Levelized Cost (\$/kWh) | \$0.021 | n/a |
| Benefit/Cost Ratios | | |
| Utility Benefit/Cost Ratio | 2.61 | |
| Total Resource Benefit/Cost Ratio | 2.95 | |

Description

Three main desired outcomes of the Easy Savings program are to educate recipients about saving energy in their homes by using energy wisely, allow hands-on experience while installing low-cost measures, and reduce the energy burden for energy assistance/Low Income Home Energy Assistance Program (LIHEAP) recipients.

As a result of IPUC Case No. IPC-E-08-10 under 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 the Idaho Power service area on a prorated basis. These orders specified that Idaho Power provide educational information to customers who heat their homes with electricity provided by Idaho Power in Idaho. This is accomplished through the development and distribution of kits containing low-cost, self-install energy efficiency items and educational materials.

Initiated in 2009, the Easy Savings program straddles two calendar years. The LIHEAP program cycle starts annually in November at CAP agencies and follows the federal fiscal calendar, while Idaho Power summarizes activities annually based on a January to December cycle. However, the following report summarizes activities from November 2014 through October 2015 and covers future plans for the 2015 to 2016 program.

2014 to 2015 Program and Marketing Activities

By April 2015, 2,068 kits from the 2014 to 2015 program year were distributed by regional CAP agencies to Idaho Power customers approved to receive LIHEAP benefits on their Idaho Power bills.

Each kit contained the following low-cost/no-cost energy-saving items and a survey:

- LED bulb—11.5 watts (W), 800 lumens

- Set of draft-stopping outlet gaskets
- Hot-water temperature card and digital refrigerator thermometer
- 1.5 gallons per minute (GPM) kitchen faucet aerator
- 1.75 GPM three-function showerhead
- LED nightlight with photocell and a set of reminder stickers and magnets
- *Easy Savings Quick Start Guide* to installation
- Mail-in survey and energy-savings information

Cost-Effectiveness

The RTF provides mail-by-request and giveaway deemed savings estimates for LED bulbs and low-flow showerheads. RTF giveaway and mail-by-request deemed savings values are discounted to reflect the potential that all the kit items may not be installed. Since the RTF does not provide giveaway deemed savings for low-flow showerheads, the mail-by-request deemed value was used.

Customer Satisfaction and Evaluations

The mail-in survey inquiring about installation experiences and actions taken to reduce energy use was included in the 2,068 kits distributed. Returned surveys were used to track the effectiveness and educational impact of the program.

There were 124 completed surveys received from customers describing their experience in installing kit items in their homes during the 2014 to 2015 program. The survey included questions about whether the customer took specific actions to reduce energy use as a result of receiving the kit, as well as questions confirming the installation of kit items.

Over 94 percent of household respondents reported they have, or will, lower their heat during the day, and just over 95 percent reported they have, or will, lower their heat at night. Just over 78 percent of the respondents reported installing the LEDs provided in the kit. Just over 70 percent of the respondents reported installing the high-efficiency showerhead.

Overall, survey results showed that almost 46 percent of the respondents installed all kit items. Just over 78 percent of the respondent households reported learning a lot about saving energy and money in their home after completing the *Easy Savings Quick Start Guide*. Copies of the survey and survey results can be found in *Supplement 2: Evaluation*.

During the 2014 to 2015 program, three gift certificates valued at \$100 each were provided by Community Action Partnership Association of Idaho, Inc. (CAPAI), to encourage survey completion. A drawing from all returned surveys was held, and three households won a \$100 gift certificate.

2015 to 2016 Program and Marketing Strategies

For the 2015 to 2016 program period, Idaho Power sent checks totaling \$125,000 in September to the five Idaho regional CAP agencies. Each agency signed a Memorandum of Understanding (MOU) agreeing to use 30 percent of the agency's allotment to cover expenses for administering the program at

their agency. The 30 percent includes the provision for an agency-certified energy educator to inform kit recipients about installation techniques and energy efficiency information. In October 2015, an order for 2,000 kits was placed by CAP agencies. Kits were shipped from the vendor and received at CAP agencies in December 2015 for distribution to customers throughout the 2015 to 2016 LIHEAP season. Three LED bulbs and an indoor clothesline were included in the 2015 to 2016 program kits.

Upon completion of kit distribution and receipt of corresponding survey results for the 2015 to 2016 program, Idaho Power and CAPAI will consider program changes for the future.

Educational Distributions

| | 2015 | 2014 |
|--|-----------|------|
| Participation and Savings | | |
| Participants (kits/bulbs) [*] | 28,197 | n/a |
| Energy Savings (kWh) | 1,669,495 | n/a |
| Demand Reduction (MW) | | |
| Program Costs by Funding Source | | |
| Idaho Energy Efficiency Rider | \$432,185 | n/a |
| Oregon Energy Efficiency Rider | \$0 | n/a |
| Idaho Power Funds | \$0 | n/a |
| Total Program Costs—All Sources | \$432,185 | n/a |
| Program Levelized Costs | | |
| Utility Levelized Cost (\$/kWh) | \$0.026 | n/a |
| Total Resource Levelized Cost (\$/kWh) | \$0.026 | n/a |
| Benefit/Cost Ratios | | |
| Utility Benefit/Cost Ratio | 2.05 | |
| Total Resource Benefit/Cost Ratio | 2.60 | |

^{*} Includes 6,699 student kits and 21,498 LED giveaway bulbs.

Description

Designated as a specific program in 2015, the Educational Distributions effort is administered through the Residential Energy Efficiency Education Initiative and seeks to use low- and no-cost channels to get energy efficiency items with energy savings directly into customers' hands. 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 in Idaho.

Items selected for distribution will have an initial cost-effectiveness analysis that indicates the installed measure is either currently cost-effective or is expected to be cost-effective in the near future. 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 that behavioral measures and programs require appropriate education and guidance to optimize savings and will plan education accordingly. Items may be distributed at events, presentations, through direct mail, or home visits conducted by CRs.

In situations where Idaho Power manages the education and distribution through existing distribution channels, the cost-effectiveness calculations will be based on the actual cost of the items. Conversely, if outside vendors are used to assist with distribution, the cost-effectiveness calculations will include all vendor-related charges.

2015 Program and Marketing Activities

Student Energy Efficiency Kit Program

The 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 that 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 three compact fluorescent lamps (CFL), a high-efficiency showerhead, an LED nightlight, a furnace filter alarm, a digital thermometer for measuring water, refrigerator and freezer temperatures, a water-flow rate test bag, and a shower timer. At the conclusion of the program, students and teachers return feedback to the vendor indicating how the program was received and which measures have been installed. The vendor uses this feedback to provide a comprehensive program summary report showing program results and savings.

During the 2014 to 2015 school year, Idaho Power CERs actively recruited fourth- to sixth-grade teachers to participate in SEEK. As a result, Resource Action Programs (RAP) delivered 6,699 kits to 226 classrooms in 77 schools within Idaho Power's service area. This resulted in 1,476 MWh of second-year savings. Unlike other residential programs offered by Idaho Power, SEEK results are reported on a school-year basis.

Teachers continued to be pleased with the program. One-hundred percent of teachers that completed surveys would recommend the program to other colleagues and would conduct the program again. Student engagement remained high as well—73 percent of student surveys were returned, and 70 percent indicated their families changed the way they used energy as a result of the program. Parents also responded favorably, indicating the program was easy to use, they would like to see it continued in local schools, and they would continue to use the kit items at home after completion of the program.

RAP calculated annual savings based on information collected from the participants' home surveys and the installation rate of the kit items. Questions on the survey include the number of individuals in each home, water-heater fuel type, flow rate of the old showerhead, and the wattage of the bulb replaced.

A copy of the complete program summary report is included in *Supplement 2: Evaluation*.

LED Bulbs as Giveaways

LED bulbs are a welcome and effective way to connect Idaho Power with customers and to begin productive conversations around energy efficiency.

With the support of EEAG members in the November 2014 EEAG meeting, Idaho Power began giving away LED bulbs shortly before they became cost-effective. The goal was to get this new technology into customer hands and accelerate market adoption. By mid-year 2015, Idaho Power had negotiated cost-effective pricing and custom packaging emphasizing the benefits of LEDs and the customer convenience of using Idaho Power's myAccount portal.

Both Idaho Power field staff and energy efficiency program managers sought opportunities to educate customers about LEDs and offer customers a free light bulb to use immediately in their own homes. Staff distributed over 1,000 bulbs to participants of the Smart Women, Smart Money conference at the Boise Centre in February. Another 4,700 went home with Spring Home and Garden Show attendees in Pocatello and Boise. Participants in various Earth Day Events and employee sustainability fairs in Hailey and Pocatello, and in Boise at DIRECTV, Whole Foods, the Boise International Market, Vista Neighborhood, and Wells Fargo received LEDs. More were distributed at the Eagle Island Experience, Paint the Town™, the Mountain Home Air Force Base, FitOne™ Expo, and through presentations at chamber and senior centers. By the end of the year, Idaho Power employees had personally delivered a brief energy efficiency message and placed 21,498 bulbs directly into customers' hands.

Cost-Effectiveness

SEEK Program

The cost-effectiveness analysis for the SEEK offering is based on the savings reported by RAP during the 2014 to 2015 school year. The savings for the program are calculated by RAP based on the feedback received from each student through the kit's surveys. The response rate for the survey was nearly 73 percent. The survey gathers information on the efficiency level of the existing measure within the home and which efficient measure is 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 is replaced. Based on the feedback received from the 2014 to 2015 school year, each kit saved approximately 220 kWh annually per household on average. A copy of the report is included in *Supplement 2: Evaluation*.

LED Bulbs as Giveaways

For the LED giveaway bulbs, Idaho Power used the giveaway deemed savings provided by the RTF. The RTF-deemed savings includes assumptions regarding the installation rate, efficiency levels of the existing equipment, and the location of the installation.

Customer Satisfaction and Evaluations

The SEEK program is evaluated annually regarding participant satisfaction. For more details on the SEEK program, view the most recent annual report, Idaho Power *Energy Wise® Program Summary Report* located in *Supplement 2: Evaluation*.

2016 Program and Marketing Strategies

SEEK Program

Plans for the 2015 to 2016 school year include analyzing program data to identify trends and opportunities. The company will continue to leverage the positive relationships Idaho Power's CERs have within the schools to maintain program participation levels. Kit contents will be updated and the three CFLs will be replaced by three LEDs. Idaho Power will work with RAP to revise the curriculum guide, student guide, and student workbook to reflect the added savings and benefits provided by the LEDs.

LED Bulbs as Giveaways

Plans for educational distributions in 2016 include continuing to offer LEDs to customers at community events, presentations, and customer visits.

Other Educational Distributions

Idaho Power will implement a direct-to-customer residential energy-saving kit program and initiate a pilot project to determine if customers can effectively reduce 25 percent or more of their clothes dryer use by either drying full loads of laundry on a drying rack or clothesline or by reducing drying time by removing items early and allowing them to finish on a drying rack or clothesline.

On February 8, 2016, Idaho Power filed a request with the OPUC seeking authority to implement the Educational Distributions program in Oregon. The company anticipates approval in March 2016, with program implementation later in 2016.

Energy Efficient Lighting

| | 2015 | 2014 |
|--|-------------|-------------|
| Participation and Savings | | |
| Participants (bulbs) | 1,343,255 | 1,161,553 |
| Energy Savings (kWh) | 15,876,117 | 12,882,151 |
| Demand Reduction (MW) | n/a | n/a |
| Program Costs by Funding Source | | |
| Idaho Energy Efficiency Rider | \$1,997,292 | \$1,860,046 |
| Oregon Energy Efficiency Rider | \$60,800 | \$45,959 |
| Idaho Power Funds | \$5,291 | \$3,818 |
| Total Program Costs—All Sources | \$2,063,383 | \$1,909,823 |
| Program Levelized Costs | | |
| Utility Levelized Cost (\$/kWh) | \$0.013 | \$0.018 |
| Total Resource Levelized Cost (\$/kWh) | \$0.028 | \$0.066 |
| Benefit/Cost Ratios | | |
| Utility Benefit/Cost Ratio | 4.53 | |
| Total Resource Benefit/Cost Ratio | 4.23 | |

Description

The Energy Efficient Lighting program strives for residential energy savings in Idaho and Oregon through the replacement of less efficient lighting with more efficient technology. Changing to the more energy-efficient bulbs is a low-cost, easy way for all customers to achieve energy savings.

The *2014–2015 Northwest Residential Lighting Long-Term Marketing Tracking Study* describes how Northwest consumers are shifting some of their focus from CFL and traditional incandescent lamps to LED lamps. This demand for LED lamps increased between 2013 and 2014, and the trend is likely to continue. The report also highlighted that consumer satisfaction with LED lamps is higher than with CFLs.

ENERGY STAR[®] qualified energy-saving bulbs, including CFLs and LEDs, are a more efficient alternative to standard incandescent and halogen incandescent light bulbs. Bulbs come in a variety of wattages, colors, and styles, including bulbs for three-way lights and dimmable fixtures. ENERGY STAR bulbs use 70 to 90 percent less energy and last 10 to 25 times longer than traditional incandescent bulbs.

Initiated in 2002, the Energy Efficiency Lighting program follows a markdown model that provides incentives directly to the manufacturers or retailers, with savings 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.

2015 Program and Marketing Activities

In 2015, the Energy Efficient Lighting program provided almost 65 percent of all energy savings derived from residential energy efficiency customer programs.

Idaho Power continued to participate in the Bonneville Power Administration (BPA) Simple Steps, Smart Savings™ program focusing on ENERGY STAR CFL and LED bulbs and LED light fixtures. CLEAResult managed the promotion. CLEAResult is responsible for retailer and manufacturer contracts, marketing materials at the point of purchase, and providing support and training to retailers. Under CLEAResult administration, there will be two programs under the Simple Steps, Smart Savings program: the lighting program and the appliance promotion program.

In April 2015, the pricing structure changed for the Simple Steps, Smart Savings program. Prior to this, Idaho Power paid a flat fee for each product sold—a base amount going to buy down the price of the product and the rest going toward administration and marketing. After April 2015, a variable pricing structure was implemented. In this new structure, Idaho Power pays a flat fee for each kWh savings achieved. The minimum base amount that goes directly to buy down the price of the product was reduced; the amount applied to administration and marketing varies and can be used for things like retailer promotions. Promotions may include special product placement, additional discounts, and other retail merchandising tactics designed to increase sales.

In 2015, LED bulbs comprised 32 percent of light bulb sales each month, which was an increase from the 13 to 29 percent of light bulb sales each month in 2014. LED fixtures comprised approximately 3 percent of lighting sales, up from the less than 1 percent of lighting sales in 2014.

Idaho Power continued to collaborate regionally on utility retail lighting programs through participation in the Northwest Regional Retail Collaborative (NWRRC) facilitated by NEEA and by following promotions initiated by the Western Regional Utility Network (WRUN). Both the NWRRC and the WRUN sought to develop collaborative approaches to working with manufacturers and retailers to increase uptake of energy-efficient products in the retail market. In 2015, the NWRCC disbanded due to overlap with NEEA's Retail Product Portfolio (RPP) workgroup. Idaho Power continued to participate in the RPP workgroup. The WRUN met twice in 2015 and has not been active since July 2015.

In 2015, Idaho Power worked with 16 participating retailers, representing 93 individual store locations throughout Idaho Power's service area. Of those participating retailers, 40 percent are smaller grocery, drug, and small hardware stores, and the remaining 60 percent are big box retailers.

Several Simple Steps, Smart Savings special promotions were conducted through CLEAResult at retail stores in 2015. These promotions generally involved special product placement and signs. In May, Lowe's supported a 10-day Save Money, Save Energy promotion that highlighted the utilities that supported incentives on lighting products in their stores. Costco used pallets in major isles to display LED bulbs that are part of the promotion in March and October. Home Depot held their annual mega-truckload lighting event during October. The purpose of this event isn't to highlight energy efficient lighting, or a certain product, rather to offer great discounts for the purchase of lighting products. These types of promotions and special product placement help increase the visibility and sales of promotional products. CLEAResult staff continued to conduct monthly store visits in 2015 to check on stock, point-of-purchase signs, and displays.

To provide additional access to Simple Steps, Smart Savings promotional pricing, Idaho Power joined in an online offering with Costco. Through this offering, Idaho Power customers who purchased bulbs online through Costco could access Idaho Power incentives. After selecting the shipping zip code, the customer was prompted to pick their utility service area, thereby making the connection between Idaho Power and the discounted price.

Additional activities in 2015 involved education and marketing. Idaho Power and CLEAResult conducted three educational events at Costco stores in Twin Falls, Nampa, and Boise and seven events at Home Depot stores in Boise, Meridian, Eagle, Nampa, Twin Falls, and Pocatello. At each event, Idaho Power and CLEAResult personnel staffed a table with literature, promotional items, and a lighting display and talked with customers about energy-efficient lighting.

The company continued to host an Energy Efficient Lighting website, made available a Change a Light program brochure, and discussed energy-efficient lighting with customers at community events.

Customers were reminded to consider energy-efficient lighting in an article in the May energy efficiency issue of *Connections*, the newsletter sent with more than 415,000 customer billing statements each month. In the September energy efficiency issue, a See ya later, refrigerator[®] ad promoted the offer of FREE LED bulbs when customers recycled their refrigerators.

In November, during energy efficiency segments on KTVB-TV news (broadcast in Boise and Twin Falls) and morning news KPVI-TV (broadcast in Pocatello), the discussion focused on the importance of using energy-efficient lighting during the holidays. The weekly *News Brief*, which is a publication produced by Idaho Power for reporters and editors to find the latest information about the company, released a *Holiday Lights: Be Safe and Energy Efficient* brief in December.

Based on a recommendation from TRC Energy Solutions during their 2014 process evaluation, a data dictionary was developed to ensure Idaho Power uses consistent language and terminology by product-type categories. This allows Idaho Power to better track lighting sales and trends.

Cost-Effectiveness

In 2015, Idaho Power generally used the same RTF-deemed savings for both CFLs and LEDs as were used in 2014. Several lamp types were included in the program that had no corresponding savings or cost assumptions available from the RTF. These non-RTF lamp types include high-lumen CFL bulbs and LED reflector fixtures. In early 2015, Idaho Power requested Tetra Tech review the non-RTF bulbs. Tetra Tech recommended the RTF savings and cost assumptions for either the “general purpose and dimmable” bulbs or the “reflector and outdoor” bulbs be assigned to the LED reflector fixtures. After reviewing the hours of use for reflector bulbs and discussing the potential uses of reflector fixtures, Idaho Power decided to assign the “reflector and outdoor” LED bulb savings to these fixtures. For other non-RTF lamp types, Idaho Power used the site savings approved by the BPA for the Simple Steps, Smart Savings promotion.

In August 2015, RTF updated and revisited the assumptions for both CFLs and LEDs to account for market changes due to the federal standards compliance. The number of lamp types was further reduced to combine three-way bulbs with the general purpose and dimmable bulbs. Additionally, the lumen categories were shifted to reflect current consumer trends. Due to the timing of the RTF’s update, BPA has not yet implemented the new savings in the Simple Steps, Smart Savings promotion. As a result, CLEAResults invoicing currently reflects the RTF bulb type and lumen categories from the RTF workbook version 3.3. Idaho Power is still determining the appropriate savings for the program for 2016.

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

Customer Satisfaction and Evaluations

In 2014, Idaho Power administered an impact evaluation of 2013 ex-ante energy savings using Tetra Tech to validate ex-post results. Overall, Tetra Tech found the program has well-established design and delivery processes, supported by the program tracking systems, program documentation, and savings tools and that processes are operating efficiently and with careful attention to detail.

In the evaluation, Tetra Tech recommended Idaho Power consider directly calculating energy savings using standard industry approaches or working with others to develop region-wide savings values when there are no RTF deemed savings. They stated that for lamps that fall well beyond the RTF categories or *Energy Independence and Security Act of 2007* (EISA) affected baseline lamps, Idaho Power should consider several options, including 1) working with NEEA and/or the RTF to develop lamp adjustment factors and baseline assumptions based on regional market knowledge; 2) conducting independent market research to understand the use of these lamps; and/or 3) using energy-savings calculations based on general engineering principles and underlying RTF market adjustment and performance factors. In response to this recommendation, Idaho Power contracted with Tetra Tech to evaluate savings for non-RTF lamps using general engineering principles and the underlying RTF market adjustment and performance factors. Idaho Power implemented Tetra Tech's savings values for non-RTF lamps in 2015. For other non-RTF lamps, Idaho Power used the savings assumptions from BPA's deemed residential lighting measure list.

2016 Program and Marketing Strategies

Idaho Power will continue to participate in the Simple Steps, Smart Savings lighting program in 2016 by contracting with CLEAResult, who was awarded the BPA implementation contract for 2016.

Idaho Power will continue to monitor the number of participating retailers and geographic spread of these retailers. Idaho Power will also work regionally to develop online promotions that allow customers to access promotional pricing regardless of location.

Marketing and education messaging in 2016 will focus on helping customers purchase the right bulb for their need. CLEAResult will continue to manage marketing at retailers, including point-of-purchase signs, special product placement, and displays. The program specialist and CRs will continue to staff lighting events to help educate customers about the importance of using energy-efficient lighting.

Energy House Calls

| | 2015 | 2014 |
|--|-----------|-----------|
| Participation and Savings | | |
| Participants (homes) | 362 | 297 |
| Energy Savings (kWh) | 754,646 | 579,126 |
| Demand Reduction (MW) | n/a | n/a |
| Program Costs by Funding Source | | |
| Idaho Energy Efficiency Rider | \$194,939 | \$186,732 |
| Oregon Energy Efficiency Rider | \$15,057 | \$8,174 |
| Idaho Power Funds | \$4,108 | \$3,080 |
| Total Program Costs—All Sources | \$214,103 | \$197,987 |
| Program Levelized Costs | | |
| Utility Levelized Cost (\$/kWh) | \$0.020 | \$0.024 |
| Total Resource Levelized Cost (\$/kWh) | \$0.020 | \$0.024 |
| Benefit/Cost Ratios | | |
| Utility Benefit/Cost Ratio | 2.81 | |
| Total Resource Benefit/Cost Ratio | 2.96 | |

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 in a manufactured or mobile home using an electric furnace or heat pump. Participation is limited to one time per premise.

Services and products offered through the Energy House Calls program include duct testing and sealing according to Performance Tested Comfort System (PTCS) standards set by the RTF and adopted by the BPA; installation of up to eight LED bulbs; up to two low-flow showerheads and bathroom faucet aerators; a kitchen faucet aerator; two replacement furnace filters with installation instructions; testing water heater temperatures for the proper setting; installation of water heater water-line covers when applicable; and energy efficiency educational materials appropriate for manufactured-home occupants. The value of the service to the customer is dependent on the complexity of the repair, and the specific measures installed. Although participation in the program is free, a typical cost for a similar service call would be \$400 to \$600. Idaho Power provides the customer with the contractor contact information via the Idaho Power website and marketing material. The customer then schedules an appointment directly with one of the recognized, certified sub-contractors specifically trained to provide these services in their region. The contractor verifies the customer's eligibility by initially testing the home to determine if it qualifies for duct-sealing. The actual energy savings and benefits realized by each customer depend on the measures installed and the repairs and/or adjustments made.

2015 Program and Marketing Activities

Concern over declining participation in past years prompted specific actions in 2015, including the introduction of the new direct-install measures and increased marketing activities.

Prior to March 15, 2015, the Idaho Power contractors installed one CFL and one furnace filter and provided one additional furnace filter.

On March 15, 2015, contractors began installing up to eight LED bulbs, two bathroom aerators, one kitchen aerator, one low-flow showerhead, and water heater pipe wrap on the first 3 feet on each side of the tank. Additional claimed savings for these direct-install measures are 112,003 kWh.

Energy House Calls served 362 manufactured homes during 2015, resulting in 754,646 kWh savings, which includes the above direct-install measures. Each year, a number of homes that participate in Energy House Calls, for various reasons, cannot be served because the ducts cannot be sealed and are billed as a test-only job. Some reasons may be the home is too difficult to seal or the initial duct blaster test identifies the depressurization with respect to the outdoors is less than 150 cubic feet per minute and sealing is not needed. Additionally, after sealing the duct work, if the contractor is unable to reduce leakage by 50 percent, the contractor bills the job as a test-only job. Prior to 2015, the total number of participating homes and kWh savings reported by Idaho Power did not include these test-only jobs. Because Idaho Power now offers direct-install measures in addition to the duct-sealing component of the program, all homes are reported, assuming some may not have been duct sealed but did have bulbs and aerators installed. Of the 362 homes that participated in 2015, 34 homes were serviced as test only. Because Idaho Power began offering the installation of the direct-install measures mid-year, only 18 of those homes that were not duct sealed received the new direct-install measures. Of the total participating homes, 49 percent were located in the Canyon–West region, 25 percent were located in the Capital region, and 26 percent were located in the South–East region. Idaho Power marketed the program; coordinated sub-contractors' performance of local duct-sealing, direct-install measures, and energy efficiency services for this program; processed sub-contractor paperwork; and paid sub-contractors directly for work performed.

Participation increased in 2015 relative to 2014, with 362 and 297 homes completed, respectively. In 2014, there were 330 participating manufactured homes, of which 33 were serviced with a test only and therefore were not reported.

Marketing efforts were increased in 2015, and emphasis was placed on the variety of services offered. Idaho Power sent two shared bill inserts, instead of just one as was the case the year prior, to all residential customers in Idaho and Oregon. The February bill insert was shared with the Rebate Advantage program, and the September bill insert was shared with the Home Improvement Program. The company sent two postcard mailings to residents of electrically heated manufactured homes that have not yet participated in the program, whereas only one postcard was sent the prior year. Written in English and Spanish, these postcards helped educate customers about the new measures added to the program. There were 10,584 postcards delivered in March and 8,362 in October.

As in the past, contractors delivered door hangers to homes in areas where they were completing Energy House Calls visits. Idaho Power delivered postcards from the marketing campaign to CAP agencies for distribution to customers who need assistance but do not meet the qualifications to receive weatherization assistance through those agencies. In addition, Idaho Power CRs and customer service representatives (CSR) knowledgeable about the program continued to promote the program to qualified customers.

Cost-Effectiveness

Savings for PTCS specified duct sealing were unchanged for 2015 compared with 2014 savings. The savings will decrease in 2016 based on new RTF-approved savings that reflect both Simple Energy

Enthalpy Model (SEEM) calibration and the move toward prescriptive savings only. In 2015, the RTF approved the removal of PTCS requirements for duct sealing, which should expand the number of potential recipients and lower customer costs. The savings will be lower to account for some duct work that may get sealed that may not have been sealed under PTCS requirements.

Savings and a cost-effectiveness analysis for the new 2015 direct-install measures, including low-flow showerheads, faucet aerators, and LED bulbs, were completed using deemed savings.

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

Customer Satisfaction and Evaluations

To monitor quality assurance (QA) in 2015, third-party verifications were conducted by Momentum, LLC on approximately 5 percent of the 328 participant homes, resulting in 16 home inspections. Homes were selected at random. The QA reports indicate customers were pleased with the work sub-contractors completed in their homes. Each home inspection included an on-site visual confirmation that the reported work had been completed. Weather permitting, blower door and duct blaster tests were also conducted to verify the results submitted by the sub-contractor.

Anecdotally, Idaho Power contractors report that customers appreciated receiving the new measures. The most comments they received were in regard to the free LED bulbs. Customers seemed to be pleased with the program.

2016 Program and Marketing Strategies

Each year, Idaho Power prepares its direct-mail marketing list by analyzing kWh use of homes designated as manufactured or mobile in Idaho Power's customer information system to find those that appear to be electrically heated. After removing those homes that had already participated in the program, the 2015 direct-mail list contained 10,584 customers. An additional percentage of these homes may have had their ducts sealed through Idaho Power's low-income programs. Idaho Power will continue to monitor these numbers.

Marketing tactics will continue to use customers' most-preferred methods for receiving information—promotional materials in the Idaho Power bill or a letter/postcard in the mail. In 2016, Idaho Power will distribute a newly designed bill insert and postcard created to appeal to a larger demographic and catch people's attention to encourage them to read marketing pieces. These inserts will promote program benefits and expected savings, and free participation will be highlighted. The company will conduct a winter targeted-mail campaign directed to residents of manufactured homes that have not yet participated in the program. Contractors and CRs will continue to distribute door hangers in mobile-home parks and program literature at appropriate events and presentations. Idaho Power will continue to mail postcards to CAP agencies for distribution to customers who need assistance but do not meet the qualifications to receive weatherization assistance through those agencies. Throughout the year, the program will continue to explore new ways to reach customers and continue to look for additional cost-effective measures that can add value to the program.

ENERGY STAR® Homes Northwest

| | 2015 | 2014 |
|--|-----------|-----------|
| Participation and Savings | | |
| Participants (homes)* | 598 | 243 |
| Energy Savings (kWh) | 820,684 | 528,054 |
| Demand Reduction (MW) | n/a | n/a |
| Program Costs by Funding Source | | |
| Idaho Energy Efficiency Rider | \$646,991 | \$330,523 |
| Oregon Energy Efficiency Rider | \$2,692 | \$7,612 |
| Idaho Power Funds | \$3,990 | \$5,141 |
| Total Program Costs—All Sources | \$653,674 | \$343,277 |
| Program Levelized Costs | | |
| Utility Levelized Cost (\$/kWh) | \$0.046 | \$0.055 |
| Total Resource Levelized Cost (\$/kWh) | \$0.099 | \$0.111 |
| Benefit/Cost Ratios | | |
| Utility Benefit/Cost Ratio | 2.10 | |
| Total Resource Benefit/Cost Ratio | 1.04 | |

* Includes savings from 69 certified gas-heated ENERGY STAR homes in 2015.

Description

ENERGY STAR Homes Northwest is a regionally coordinated initiative supported by a partnership between Idaho Power and NEEA's Northwest ENERGY STAR Homes to improve and promote the construction of energy-efficient homes using guidelines set forth by the EPA. Initiated at Idaho Power in 2003, this program targets the lost-opportunity energy savings and summer-demand reduction that is achieved by increasing the efficiency of the residential-building envelope and air-delivery system above current building codes and building practices. An ENERGY STAR certified home is a home that has been inspected and tested by an independent, third-party ENERGY STAR rater hired by the builder to meet the stringent ENERGY STAR requirements.

The ENERGY STAR Homes Northwest residential construction program promotes homes that use electric heat pump technology and are at least 15 percent more energy efficient than those built to standard Idaho and Oregon code. The program specifications for ENERGY STAR Homes Northwest are verified by ENERGY STAR raters and are certified by Northwest ENERGY STAR providers—Washington State University Extension Energy Program and Building Energy, Inc.—while Northwest ENERGY STAR providers also conduct program QA.

ENERGY STAR homes are more efficient, comfortable, and durable than homes constructed to standard building codes. Homes that earn the ENERGY STAR label include six required specifications: 1) effective insulation, 2) high-performance windows, 3) air-tight construction and sealed ductwork, 4) energy-efficient lighting, 5) ENERGY STAR qualified appliances, and 6) efficient heating and cooling equipment.

To encourage builders to construct ENERGY STAR homes, builders participating in ENERGY STAR Homes Northwest in 2015 received a \$1,000 incentive per home built to the Northwest ENERGY STAR Single and Multifamily Homes Requirements with heat pump technology. Builders who entered their

homes in a Parade of Homes received the standard \$1,000 incentive plus an additional \$500 marketing incentive to cover their expenses for ENERGY STAR signage and brochures. Another benefit to the builders is the right from ENERGY STAR Homes Northwest and the EPA to use the logo and the ENERGY STAR name to promote themselves as an ENERGY STAR qualified builder.

The Idaho Power program collaborates with ENERGY STAR Homes Northwest for program promotion. A large part of the program's role in 2015 was to provide marketing materials and support for the building contractors associations (BCA) throughout Idaho Power's service area.

2015 Program and Marketing Activities

All of the 598 homes certified in 2015 that received incentives through the program were multifamily dwellings. There is a regional trend toward ENERGY STAR multifamily certifications. The increase in the number of participating homes in 2015 as compared to 2014 is due to an increase in multifamily ENERGY STAR homes that employ heat pump technology, constructed and certified in Idaho Power's service area. These 598 homes were constructed in thirteen multifamily ENERGY STAR developments.

The company maintained a strong presence in the building industry by supporting the Idaho Building Contractors Association (IBCA) and several of its local affiliates throughout Idaho Power's service area in 2015. The company ran a half-page ENERGY STAR Homes advertisement in the Building Contractors Association of Southwestern Idaho (BCASWI) contractor newsletter for 10 months, March through December. The company presented the Energy Efficient Design and Construction Awards to builders who integrated energy efficiency features in their parade homes at the BCASWI Parade of Homes awards banquet. In addition, the company participated in the BCASWI builder's expo and the Snake River Valley Building Contractors Association (SRVBCA) builder's expo. Idaho Power supported Parade of Homes events with full-page ENERGY STAR ads in the Parade of Homes magazines of the following BCAs: The Magic Valley Builders Association Parade of Homes (MVBA), the BCASWI Parade of Homes, SRVBCA Parade of Homes, and the Building Contractors Association of Southeast Idaho (BCASEI) Parade of Homes. Bill messages were added to residential customers' billing statements informing them of Parade of Homes events in their area. In addition, the company sponsored the IBCA annual winter and summer meetings.

In May 2015, Idaho Power sent a bill insert to all residential customers in Idaho Power's service area promoting the ENERGY STAR Homes Northwest program.

Cost-Effectiveness

Savings and cost-effectiveness assumptions were unchanged for 2015 compared with 2014. The townhome/multifamily homes in the Boise–Nampa–Caldwell climate zone were cost-effective from a UC and a TRC perspective with the inclusion of NEBs. No single-family homes were certified in 2015. The RTF deactivated the single-family home ENERGY STAR measure in October 2015. The measure deactivation was primarily driven by the decline in savings resulting from the federal standards change in heat pumps, but additionally lighting baselines have increased also due to standards changes. Deactivated status with the RTF signifies that the measures do not meet current compliance guidelines. In the case of ENERGY STAR homes, the RTF is not going to update the savings to bring them into compliance because of the region's pending transition from the Northwest ENERGY STAR Homes program to the national EPA ENERGY STAR Homes program and eventually to Next Step Home (NSH). NEEA's NSH program is still in the pilot stage.

Because of Idaho Power's support of NEEA and the ENERGY STAR Homes Northwest brand, Idaho Power is claiming savings for 69 natural gas heated, ENERGY STAR certified homes certified in Idaho Power's Idaho service area in 2015. These savings account for 46,872 kWh of annual savings from efficient cooling equipment, insulation, windows, doors, water heating, ventilation, appliances, and lighting. NEEA does not claim these savings, and they will be included in the program savings totals in appendices 3 and 4 but are not included in program cost-effectiveness.

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

Customer Satisfaction and Evaluations

A rater is an independent, third-party contractor hired by the builders to ensure the ENERGY STAR homes are compliant with the Northwest ENERGY STAR Homes specification. Along with verifying the installation of building components and equipment through on-site inspections, prior to being certified, the rater ensures the home passes a blower door test, an air-duct leakage test, and combustion back-draft tests. The rater then enters specification information into the Northwest REM/Rate™ modeling software program to determine if the home qualifies for Northwest ENERGY STAR Homes certification. This is a requirement of receiving the certification.

Program providers—Washington State University and Building Energy, Inc.—certify each rater-verified home within the Northwest ENERGY STAR database. Both providers, in conjunction with NEEA contractors, perform QA and provide technical assistance duties within Idaho. In 2015, the required 4 percent of homes certified in the ENERGY STAR Homes Northwest program underwent both field and file QA. Four multifamily developments in Idaho Power's service area were among the 4 percent. The QA found variances from the Northwest ENERGY STAR specifications with two of the multifamily developments. Idaho Power worked with Northwest ENERGY STAR and NEEA to evaluate these variances. Both developments' specifications were modeled by a NEEA contractor, and the energy savings of both developments was found to be greater than the regional deemed Northwest ENERGY STAR specification; the developments were not decertified.

2016 Program and Marketing Strategies

Idaho Power plans to continue marketing efforts to promote ENERGY STAR homes to home builders and new homebuyers. These marketing efforts include Parade of Homes ads in parade magazines for the BCASWI, SRVBCA, MVBA, and the BCASEI. The company also plans to continue supporting the general events and activities of the IBCA and its local affiliates. Bill inserts will be sent to all residential customers in May. Bill messaging—an inexpensive marketing approach—is planned for two months to support the various BCA Parade of Homes events throughout Idaho Power's service area.

Other marketing tactics will be considered based on past effectiveness, such as direct mail to residential builders.

The program will be promoted in the *Idaho Business Review* in issues directed at residential contractors and builders.

Northwest ENERGY STAR Homes will be completing the transition to the national EPA ENERGY STAR homes program in the first quarter 2016. At that time, the ENERGY STAR label will replace the Northwest ENERGY STAR label, online program resources will transition from the Northwest ENERGY STAR Homes website to those of the EPA, and single-family home certifications will

transition from the Northwest REM/Rate modeling software program to the national ENERGY STAR Home Energy Rating System (HERS) Index target using the standard version of REM/Rate modeling software program.

NEEA will continue its transition of the Northwest ENERGY STAR Homes program to the national EPA ENERGY STAR Homes program, engaging local market partners/stakeholders. This transition is slated for the first quarter of 2016.

The EPA's ENERGY STAR Homes program will be available for builders who continue building ENERGY STAR certified homes under the national EPA program, using the national ENERGY STAR HERS Index target and the standard version of REM/Rate modeling software program.

Idaho Power will continue to support NEEA's NSH program, which continues on in a pilot. NEEA continues to recruit builders throughout the Northwest to build to a high performance specification. NEEA will install monitoring devices in homes to track energy-saving performance. Three phases of the NSH have been established. Homes are now being built within Phase III of the NSH pilot. Homes built during Phase III are incorporating NSH minimum requirements, guidelines, and best practices learned from Phase I and II.

Heating & Cooling Efficiency Program

| | 2015 | 2014 |
|---|-----------|-----------|
| Participation and Savings | | |
| Participants (projects) | 427 | 230 |
| Energy Savings (kWh) | 1,502,172 | 1,099,464 |
| Demand Reduction (MW) | n/a | n/a |
| Program Costs by Funding Source* | | |
| Idaho Energy Efficiency Rider | \$583,663 | \$340,551 |
| Oregon Energy Efficiency Rider | \$25,186 | \$14,627 |
| Idaho Power Funds | \$17,520 | \$6,836 |
| Total Program Costs—All Sources | \$626,369 | \$362,014 |
| Program Levelized Costs | | |
| Utility Levelized Cost (\$/kWh) | \$0.028 | \$0.022 |
| Total Resource Levelized Cost (\$/kWh) | \$0.092 | \$0.075 |
| Benefit/Cost Ratios | | |
| Utility Benefit/Cost Ratio | 3.11 | |
| Total Resource Benefit/Cost Ratio | 1.05 | |

*In 2015, DHP Pilot was incorporated into the H&CE Program.

Description

The H&CE Program provides incentives to residential customers in Idaho Power's Idaho and Oregon service area for the purchase and proper installation of qualified heating and cooling equipment and services.

Initiated in 2007, the objective of the program is to acquire energy savings by providing customers with energy-efficient options for electric space heating and cooling. Incentive payments are provided to the residential customers for all measures. Three of the measures also include a payment to the installing contractor. The available measures in 2015 include ducted air-source heat pumps, ducted open-loop water-source heat pumps, ductless air-source heat pumps, duct sealing, WHFs, ECMs, and evaporative coolers.

Idaho Power requires licensed contractors to perform the installation services related to these measures, with the exception of evaporative coolers, which can be self-installed. The licensed contractors must also be authorized by Idaho Power as participating contractors for the ducted air-source heat pump, ducted open-loop water-source heat pump, ductless air-source heat pump, and duct-sealing measures.

The H&CE Program's list of measures and incentives includes the following:

- 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).
- 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. Participating homes must be located in areas where natural gas is unavailable.

- 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.
- Incentive for customers 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. Participating homes must be located in areas where natural gas is unavailable.
- 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).
- 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.
- The incentive for customers 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. Participating homes must be located in areas where natural gas is unavailable.
- The customer incentive for displacing a zonal electric heating system with a new ductless air-source heat pump is \$750.
- 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.
- The customer incentive for a WHF installed in an existing home with central A/C, zonal cooling, or a heat pump is \$200.
- The customer incentive for replacing a 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.
- The customer incentive for installing an evaporative-cooler is \$150.

2015 Program and Marketing Activities

Idaho Power began offering three new measures through the program on June 30, 2015. The measures provide cash incentives for duct sealing, WHFs, and ECMs. During the development stage of these measures, the company provided updates and requested input from EEAG at quarterly meetings. EEAG's positive and helpful feedback aided program design and execution.

The program underwent significant changes to simplify incentive application processing for both the applicant and Idaho Power. Changes included the consolidation of eight application forms and simplification of layouts for associated worksheets. The screens that Idaho Power uses to enter incentive applications into the Customer Load Research Information System (CLRIS) were simplified with a reduced number of fields to populate. These screens also received one consistent new layout. The company built a feature into the CLRIS application that allows incentive applications to be stored as file attachments in PDF file format, which provides Idaho Power efficient access to the submitted applications.

On June 30, 2015, Idaho Power also transitioned the DHP Pilot into the H&CE Program as a measure contained within the program. Idaho Power updated the DHP Pilot website content and moved it to the H&CE Program website. Customers now view one program instead of two, thereby reducing complexity and encouraging participation. EEAG reviewed and supported the consolidation prior to its launch date. Idaho Power received 217 applications for the DHP measure in 2015—a 21-percent increase in DHP applicants, with 38 additional approved incentive applications compared to 2014.

Idaho Power completely replaced the H&CE Program Web pages with improved navigation, content, and forms. The nine individual measure screens incorporated a consistent layout in both content type and navigation. The company converted previous content from paragraph format to bullet points and omitted content of lesser value. Idaho Power staff created a two-click navigation strategy to ensure a website visitor arrived at their specific information quickly. To eliminate the need to scan through content geared for multiple audiences, the content was changed and categorized to target the following five primary visitor types—homeowners, property owners, participating contractors, licensed contractors, and builders. Visitors now navigate to a single screen displaying content relevant to them.

The expansion of Idaho Power’s network of participating contractors remained a key growth strategy for the program. Authorized participating contractors must be used for the ducted air-source heat pumps, ducted open-loop water-source heat pumps, ductless air-source heat pumps, and duct-sealing measures. Idaho Power’s goal was to support contractors currently in the program while adding new contractors. The company held meetings with several prospective contractors to support this strategy. Idaho Power added 21 new companies to the program as authorized participating contractors during 2015. An additional dozen other interested companies will be taken through the authorization process by the program specialist. Due to this high volume, it was necessary to delay interaction with wholesalers.

For a company to become a participating contractor, they must first participate in required training that provides program guidelines and technical information on HVAC equipment. Idaho Power held 11 training sessions for contractors in 2015. 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 existing participating contractors and help them increase their customers’ participation while improving the contractors’ work quality.

Idaho Power uses Honeywell, Inc., a third-party contractor, to review and enter incentive applications into the Idaho Power system. Honeywell reviews and submits incentive applications for Idaho Power payment using a program database portal developed by Idaho Power. This allows Idaho Power to maintain the database within the company’s system, which is secure yet accessible to the third-party contractor. They also perform on-site verifications (OSV) and provide technical support to the CRs and contractors. Honeywell offers local program and technical assistance to contractors through on-site visits at their businesses.

Idaho Power used multiple marketing methods for its H&CE Program. In May and September, the company mailed bill inserts to all residential customers. One direct-mail letter targeted homes with electric heat and went to 29,786 residents in March. In January 2015, an advertisement appeared one time in eight newspapers across the company’s service area. In May, July, and September, Idaho Power placed an advertisement in a BCASWI newsletter for homebuilders.

Two in-studio energy efficiency news segments—on KTVB (Boise and Twin Falls broadcast markets) and KPVI (Pocatello)—focused on heating and cooling issues. Typically, in these segments viewers are provided important information about energy use, then directed to Idaho Power’s website for energy efficiency tips and information on specific programs. Both of these segments (KTVB in May and KPVI

in June) educated viewers on the use of programmable thermostats, then suggested visiting the company's website for information on ways to save energy.

Idaho Power ran DHP Facebook ads from March 5 through June 5, where 273,193 people saw the ad on Facebook and 13,319 people clicked through to the Idaho Power website. The cost-per-click was \$0.68. In 2015, the Facebook benchmark cost-per-click was \$0.80 for a standard or normal cost-per-click. This means that DHP ad at \$0.68 cost-per-click was considered very good, especially for a utility company niche product.

Cost-Effectiveness

Unit Energy Savings (UES) values for the H&CE Program, including DHP were mostly unchanged between 2014 and 2015. In 2016, the RTF will continue analyzing savings for DHPs. For whole-house prescriptive duct sealing, RTF-approved planning UES values were sourced and used for savings and cost-effectiveness analyses. Savings estimate for the two other new measures, ECMs and WHFs, were estimated by reviewing potential studies, engineering estimates, and third-party review by the Integrated Design Lab (IDL).

For the 2015 cost-effectiveness analysis, participant costs for all air-source and water-source heat pumps were estimated by looking at median project costs across three years of data (2013–2015). The use of median costs and 3 years of data helps focus in on the typical costs that a customer experiences and minimize impact from projects with extreme costs. Costs for DHPs were assessed by averaging the costs for a one indoor- and one outdoor-unit installation.

Water-source heat pumps across all climates and air-source heat pump conversions from other electric heat sources to an 8.50 or higher HSPF continue to not be cost-effective. Idaho Power determined that water, and ductless and air-source heat pumps meet at least one of the cost-effectiveness exceptions outlined in OPUC Order No. 94-590. Idaho Power filed UM 1710 to request a cost-effectiveness exception with the OPUC on February 11, 2015. The OPUC granted the company's request for an exception in Order No. 15-200, issued on June 23, 2015. Air-source heat pumps replacing existing heat pumps are also no longer cost-effective. Federal standards were enacted in January 2015 that raised the minimum efficiency from a 7.7 HSPF baseline to 8.2 HSPF, which was the previous ENERGY STAR specification prior to 2015. The company is monitoring these measures and in consultation with EEAG will determine how to modify the program or measures under the new specification. In 2016, Idaho Power will update all savings for air-source and ductless heat pumps as necessary.

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

Customer Satisfaction and Evaluations

Honeywell performed random OSVs on 42 (10 percent) of the completed installations in Idaho Power's service area. These OSVs verified that the information submitted on the paperwork matched what was installed at customers' sites. Overall, the OSV results were favorable with respect to the contractors' quality of work. The program specialist continues to work with contractors to help them understand the importance of accurate documentation and quality installations.

Idaho Power contracted with AEG to conduct a process evaluation and an impact evaluation of the DHP pilot for program year 2014 prior to the consolidation into the H&CE program. Key findings are described below, followed by recommendations and Idaho Power's response in both 2015 and 2016.

The results of the impact analysis show the DHP pilot saved 451,391 kWh, achieving 97.5 percent of its goal. Including NEBs, the ex-ante realization rate is 109.2 percent.

AEG indicated the program is very well run, has an involved program specialist, and adheres to best practices in the industry. In addition, the program has high satisfaction among participating contractors and customers, and the technology is well received.

AEG recommended Idaho Power expand the target market to residential new construction and small commercial businesses. In response to this recommendation, Idaho Power spoke with a local residential homebuilder to help determine the feasibility of expanding into the new-construction industry. It was determined that expanding into this market would not be cost-effective, as it would require multi-head DHP systems, which are considerably more expensive than a single-head system. Idaho Power will continue to work with NEEA to develop a multi-head DHP solution that may provide a cost-effective alternative to the new-construction market.

The evaluation team also recommended Idaho Power work with manufacturers to provide training materials and workshops for participating contractors. Currently, the program specialist communicates with manufacturers but does not offer brand-specific training materials or manufacturer-branded workshops to contractors. Idaho Power is careful to remain brand neutral and works with the equipment wholesalers who support the manufacturers.

Idaho Power accessed additional information from other sources. In 2015, NEEA provided five reports updating the DHP Pilot and related topics. A copy of each is included on the CD accompanying *Supplement 2: Evaluation*. The following are highlights from the reports.

NEEA Report E15-304, released February 2015

This report summarized the findings from the DHP and Heat Pump Water Heater (HPWH) message testing study conducted by ILLUME Advising, LLC, on behalf of NEEA. Consumers are somewhat aware of DHP and HPWH technologies. Despite NEEA promoting DHPs since 2008, less than half of survey respondents were aware of the technology. Consumers intend to purchase a heating system or water heater only when their current heating system breaks down. This could be a significant barrier to DHPs given the long life of standard electric heating systems. About a quarter of survey respondents who claimed to be aware of DHP technology characterized themselves as familiar with it. Similarly, only about a quarter of respondents who claimed to be aware of HPWH technology characterized themselves as familiar with it, and very few have ever seen one. For HPWHs, up-front costs, lack of familiarity, and difficulty of self-install were the primary barriers noted by respondents.

NEEA Report E15-290, released June 2015

The key objectives of this study include the following: 1) identify relevant market segments in the Northwest and quantify the maximum technical potential for displacing electric resistance heating in each segment, 2) identify current market barriers and market adoption issues for standard DHPs and other related specialized equipment in the Northwest, and 3) forecast the likely total displacement of electric resistance heating by standard and specialized DHPs over the next 20 years under different market adoption scenarios. The potential model in the study forecasts that the cumulative achievable potential savings for the high-, medium-, and low-penetration scenarios are approximately 180 aMW, 240 aMW, and 440 aMW, respectively, over the 20-year period ending in 2034. The maximum technical potential nearly reaches 1,350 aMW in 2034.

NEEA Report E15-291, released June 2015

This study assessed international DHP markets to determine how international experience can be leveraged to enhance market uptake of this technology in the Northwestern United States (US). Ductless solutions are not nearly as successful in markets where they must displace ducted products. In the US, the key factors inhibiting further adoption of ductless split systems stem from the fact that ducted systems are the standard solution in the market. Study recommendations included partnering with manufacturers to help reduce costs, improving contractor awareness, and providing training. The study suggested the industry facilitate established retail sales channels to help reduce cost, build consumer awareness, and facilitate market entry of lower-cost products.

NEEA Report E15-318, released July 2015

This report is the fourth MPER of the NEEA Northwest Ductless Heat Pump Project (Initiative). General population awareness of DHPs has stayed fairly steady since 2013, and households are continuing to learn about DHPs from a wide variety of sources. Respondents noted that friends and acquaintances are the primary source of information, followed by utility information and installers. There continues to be interest in DHPs, with 8 percent of the general population saying they will definitely install a DHP and 85 percent saying they will consider a DHP purchase. Installers reported that the number of customer requests for DHPs increased from the prior year. Word-of-mouth and information from acquaintances remain the primary source of initial information on DHPs. Households that installed DHPs continue to have high satisfaction with the product and recommend the product to others.

NEEA Report E15-294, released August 2015

This report summarized the lab and field test findings for Mitsubishi's prototype product that combined a ductless heat pump with a heat pump water heater into a single, integrated product. Mitsubishi worked with a water heater partner for the water heater portion of the product. NEEA partnered with Mitsubishi to test the appliance and provide feedback regarding performance. NEEA selected Energy 350 to conduct the testing and reporting.

2016 Program and Marketing Strategies

Idaho Power will provide program training to existing and prospective contractors to assist them in meeting program requirements and further their product knowledge. Sessions will be held on-site at contractor businesses and at Idaho Power facilities.

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 2016 is to develop contractors currently in the program while adding new contractors. To meet this objective, the program specialist, along with Idaho Power CRs, will arrange frequent individual meetings to discuss the program with contractors in 2016.

An additional incentive measure is planned for the program: the company plans to offer an incentive to residential homeowners who have a licensed contractor install a smart/connected thermostat for their HVAC system in Idaho and Oregon. The company filed Tariff Advice No. 16-02 seeking approval of the modification with the OPUC on January 20, 2016. The company requested an effective date of March 31, 2016. Eligibility for this new measure would require an existing home to have electric forced air heat or a ducted heat pump. Idaho Power plans to offer the measure as a pilot and perform an energy evaluation of the devices using enrolled customers' billing data.

In the AEG impact and process evaluation, AEG recommended conducting more outreach with contractors. In response to this recommendation, in 2016, Idaho Power will begin a targeted approach to less active participating contractors through the CRs, who will begin exploratory discussions with these contractors to uncover individual barriers resulting in their limited program participation. The CRs will forward the results of these discussions to the program specialist to reduce or eliminate these challenges where possible.

AEG also recommended Idaho Power remind participating contractors about the marketing portal that offers pre-designed marketing collateral printable for contractor use. As part of the 2016 targeted approach, CRs will remind contractors about the benefits of using this portal and report key responses to the program specialist for follow-up.

In responses to AEG's evaluation, Idaho Power will incorporate the recommendations to ensure the correct inflator is used to convert to current-year values and to not use the present value non-electric system benefits dollars per kWh. Additionally, Idaho Power will use the home address to determine the climate and heating zone when a home's zip code resides in two counties.

The 2016 marketing strategy will include several tactics previously used, such as bill inserts, newspaper print ads, direct mail, and social media. The company will continue to monitor the contractor portal for its effectiveness for participating contractors and make changes as needed. A video or videos might be added to educate consumers on some or all of the program measures.

Home Energy Audit

| | 2015 | 2014 |
|---|-----------|-----------|
| Participation and Savings | | |
| Participants (homes) | 351 | 354 |
| Energy Savings (kWh) | 136,002 | 141,077 |
| Demand Reduction (MW) | n/a | n/a |
| Program Costs by Funding Source | | |
| Idaho Energy Efficiency Rider | \$192,873 | \$164,579 |
| Oregon Energy Efficiency Rider [*] | \$0 | -\$248 |
| Idaho Power Funds | \$9,084 | \$6,318 |
| Total Program Costs—All Sources | \$201,957 | \$170,648 |
| Program Levelized Costs | | |
| Utility Levelized Cost (\$/kWh) | \$0.151 | n/a |
| Total Resource Levelized Cost (\$/kWh) | \$0.178 | n/a |
| Benefit/Cost Ratios | | |
| Utility Benefit/Cost Ratio | n/a | |
| Total Resource Benefit/Cost Ratio | n/a | |

^{*} Reversal of a 2013 charge to the Oregon Rider.

Description

The Home Energy Audit program is an in-home energy evaluation by a certified, third-party home performance specialist (HPS). It is used to identify areas of concern and provide specific recommendations to improve the efficiency, comfort, and health of the home. An audit includes a visual inspection of the crawl space and attic, a health and safety inspection, and a blower door test to identify and locate air leaks. In addition to the energy evaluation, some energy-saving improvements are installed at no additional cost to the customer if appropriate. After the audit is complete, the customer is supplied with a written report of the HPS's findings and recommendations. Available improvements include installation of the following:

- Up to 20 efficient light bulbs (CFLs and LEDs)
- One high-efficiency showerhead
- Pipe insulation from the water heater to the home wall (approximately 3 feet)

The current Home Energy Audit program is based on the insights gained from the Boise City Home Audit project conducted in 2011 and 2012, as described in the *Demand-Side Management 2012 Annual Report*. In 2014, the audit project became an official program under Idaho Power's management. To qualify for the Home Energy Audit program, participants must live in Idaho and be an Idaho Power customer of record for the home. The home must be an existing all-electric, site-built home. Renters may participate with prior written landlord permission. Single-family homes, duplexes, triplexes, and fourplexes qualify. Manufactured homes, new construction, or buildings with more than four units do not qualify. Multifamily homes heated by a central heating unit or that are not separately metered are not eligible.

Participating customers pay \$99 for the audit and installation of measures, with the remaining cost covered by the Home Energy Audit program. Energy audits of this type normally cost \$300 or more, not including the select energy-saving measures, materials, and labor. The cost of the materials potentially installed at each home is approximately \$145.

2015 Program and Marketing Activities

Participants for the program were recruited through small batches of 1,000 to 2,000 direct-mail letters. A program brochure was created in 2015 and added to some mailings. Customers interested in participating were directed to a website for additional information and the online application. Those who did not have internet access or were uncomfortable using the application online were able to call Idaho Power and apply via phone.

Seven energy audit HPS companies served the program in 2015. Audits were randomly assigned to the HPSs serving each area, grouping locations for each HPS to save on travel time and expense.

In 2015, Idaho Power completed 351 energy audits, surpassing the 2015 goal of 300. The average age of participating homes was 35 years old. The homes were built between 1910 and 2014. Home sizes ranged from 529 square feet (ft²) to 8,020 ft², with 2,380 ft² average home size. Figure 11 shows the number of participating homes located in various counties, demonstrating the program's reach across Idaho Power's service area.

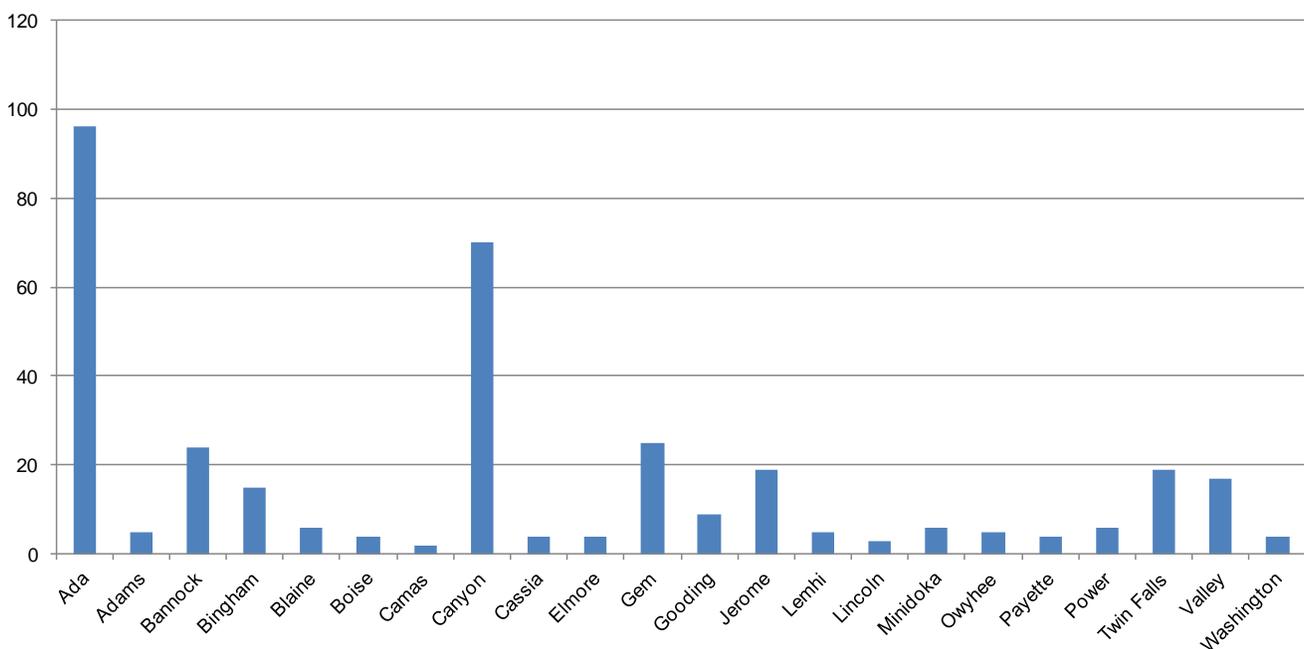


Figure 11. Summary of participating homes by county

The program was designed for all-electric homes only. All written communication sent to customers and the website explained the program was limited to all-electric homes. If the application was taken by phone, the customer was asked if their home had electric heat and water heating, and non-electric sources were declined. In addition, when the HPS contacted the customer to schedule the appointment, the customer was asked if the home used electric heat and water heating. Non-electric sources were declined. The electrically heated homes used a variety of heating styles, with heat pumps being the most common (182), then furnaces (76) and wall heaters (75). Eleven of the 351 participating homes audited were not electrically heated homes, despite numerous efforts to ensure participants had all-electric

homes. The contractor conducted the audits of the non-electric homes, and Idaho Power paid the contractor for their completed audits. These non-all-electric homes were audited for several reasons. Some customers do not know what heating fuel their home uses, and they believe they are electrically heated. Upon arriving at these residence, the HPS audits these homes to maintain customer satisfaction and fulfill some of the other objectives of this program—to educate customers on energy efficiency, promote Idaho Power’s other energy efficiency programs and provide the customer with a plan for energy efficiency improvements in the future. Some of the direct-install measure savings are not heating-fuel dependent, and only the savings from the non-heating-fuel-dependent measures are counted in the savings. In 2016, the program will be fuel neutral, and savings will be assessed in a similar manner. This program change will allow more customers to participate and learn ways to be energy efficient. Even if the space or water heating source in a home is not electric, often there can be many opportunities to use electricity wisely.

The HPSs collected information on types and quantities of appliances and lighting in each home. The average number of incandescent lights per home was 23, and the average number of fluorescent lights was 12. When performing an audit, the HPS determined which available measures were appropriate for the home, and if the homeowner approved, those measures were installed. Figure 12 indicates the total quantity of items installed by measure.

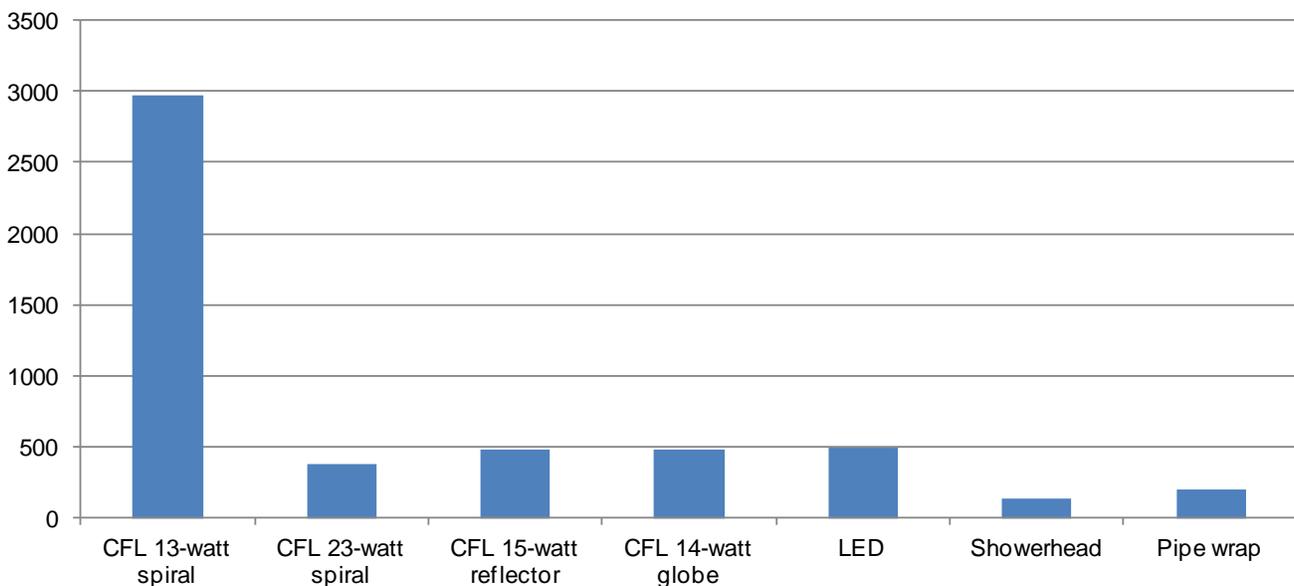


Figure 12. Measures installed in participating homes

The QA goal for the program was inspection of 10 percent of all audits completed in 2015. Idaho Power exceeded its goal in 2015, with 39 completed QAs. All homes selected for the QA audits passed inspection, with one gas/non-all-electric home audited.

One change to the program, which was implemented in 2015 based on customer and HPS feedback and a recommendation from the 2014 process evaluation, was that general-purpose LED bulbs were made available to customers. The cost analysis for LEDs was reviewed, and the general-purpose bulb was found to be a cost-effective measure. Other types of LED bulbs will continue to be monitored, and they will be made available as their costs decrease to the point they become cost-effective.

To ensure participants were receiving their reports and were not having difficulties accessing reports online, in 2015, the HPSs started calling participants 10 to 14 days after the audit to verify the participant

had received the report. Anyone having issues accessing their report was either sent their report in a PDF via email or mailed a hard copy. Additionally, the phone calls provided the participant with an opportunity to ask questions and gain clarification on the recommendations.

To account for the additional time required for follow-up calls—and to bring the fees more in-line with industry standards—the payment to the auditor was increased in 2015 from \$101 to \$201. The customer fee remained at \$99.

The HPSs went through additional training to ensure thorough understanding of the program, including goals, standards, timelines, and program flow. Training included information for promotion of other energy efficiency programs, instructions on the use of myAccount, review of feedback from surveys, and focus on areas for improvement.

Idaho Power partnered with the University of Idaho's Valley County Extension Office to host an energy efficiency workshop in Cascade in October. Direct-mail letters and posters hung at local businesses invited the community to attend the evening workshop. Attendees learned ways to check their homes for efficiency, how to make improvements, how to use myAccount, and about various Idaho Power programs with an emphasis on the Home Energy Audit program. For attending, each person was given an LED bulb.

Idaho Power created a trade show booth backdrop and interactive Web pages using a cutaway house design to promote the Home Energy Audit program and demonstrate energy-saving tips for customers. The company used the booth backdrop at the 2015 FitOne Show, the Smart Women, Smart Money conference, and the Pocatello Spring Home Show.

In the May energy efficiency issue of *Connections*, the newsletter sent to more than 415,000 customers with their bills, the cover story featured a couple from Garden Valley who had participated in the Home Energy Audit program. Bill inserts were sent to select zip codes in January, March, and November.

In late 2015, Idaho Power used a Facebook boosted post in the Eastern region. A boosted post resembles a traditional Facebook post, but by paying to boost the post, it appears higher in News Feeds, increasing the chance that the targeted audience will see it. Boosting posts can help increase audience engagement and get more people interacting with the content shared on Facebook. While the post did not appear to drive enrollments, it reached 13,476 people with 331 likes, 46 shares, and 369 post clicks. In addition, a short article was placed in the Pocatello-Chubbuck Chamber of Commerce e-newsletter throughout the month of December.

Cost-Effectiveness

One of the goals of the Home Energy Audit program is to increase participants' understanding of how their home uses energy, and if eligible, encourage their participation in Idaho Power's energy efficiency programs. As an educational and marketing program, the traditional cost-effectiveness tests have not been applied to the program.

Idaho Power used the same assumptions during 2015 as were used in 2014. For the items installed directly in the homes, Idaho Power used the RTF savings for direct-install bulbs, which range from 17 to 29 kWh per year. The RTF savings for 2.0 GPM showerheads directly installed in a home are 139 kWh per year. In Idaho Power's *Energy Efficiency Potential Study*, AEG estimates that pipe wraps save 150 kWh per year.

In 2015, the RTF reviewed and updated the savings assumptions for CFLs, LEDs, and showerheads. For direct-install CFLs and LEDs, the RTF shifted the groupings for the low, moderate, and high-use interior space types. For showerheads, the RTF updated several assumptions. The parameters that impacted the savings for showerheads the most were changes to the baseline showerhead, the showers per person per year, and the annual usage of each showerhead. These new savings will be applied in 2016.

Customer Satisfaction and Evaluations

A survey designed to assess customers' experience with program enrollment, scheduling, the auditor, the report value, and information learned was sent to a total of 379 new participants. The response rate was nearly 37 percent, with 140 participants responding. Idaho Power mailed 127 surveys and emailed 252 surveys. Program strengths and areas for improvement were also assessed. Participants that supplied an email address were sent the survey online. Those without an email address were sent a hardcopy of the survey with a postage-paid envelope. Results were reviewed for the program as a whole and for responses related to individual HPSs.

When asked a series of questions about their experience with the program, over 95 percent of respondents "strongly agreed" or "somewhat agreed" they would recommend the program to a friend or relative, and over 92 percent of respondents "strongly agreed" or "somewhat agreed" they were satisfied with their overall experience with the program.

Ninety-five percent of the respondents indicated it was "very easy" or "somewhat easy" to apply for the program. Individual program audit report results were available online, and a hard copy of the report was mailed to participants who did not supply an email address. Over 35 percent of respondents reported accessing their report online, while almost 44 percent reported receiving a paper copy, and almost 21 percent reported receiving their report both ways. Of those who accessed their report online, 55 percent indicated that accessing the report online was "very easy" or "somewhat easy."

HPSs were rated on a number of attributes, including courteousness, professionalism, explanation of work/measurement to be performed, explanation of audit recommendations, and overall experience with the HPS. Respondents rated their HPSs as "good" or "excellent" 92 to 100 percent of the time.

When asked how strongly they agree or disagree with statements around what they learned during the audit process, over 97 percent of respondents "strongly agreed" or "somewhat agreed" they were more informed about the energy use in their home. Almost 87 percent indicated they "strongly agreed" or "somewhat agreed" they were more informed about energy efficiency programs available through Idaho Power. Nearly 87 percent indicated they "strongly agreed" or "somewhat agreed" they learned what no- to low-cost actions they could take.

After the audit, 40 percent of respondents indicated they visited the Idaho Power website, over 53 percent unplugged appliances when not in use, over 39 percent signed up for myAccount, and almost 65 percent shared their experience with relatives and/or friends. Almost 60 percent of the respondents indicated they replaced additional incandescent light bulbs with CFLs or LEDs. Just over 34 percent indicated they serviced their heating equipment, and almost 29 percent serviced cooling equipment. Additional information on the actions respondents indicated they already completed or planned to do within the next year are shown in the survey results included in *Supplement 2: Evaluation*.

Survey participants were asked to identify all of the benefits they experienced from participating in the program. Over 64 percent of respondents indicated the biggest benefit they found in the audit was

personal satisfaction, with over 76 percent citing raised awareness of energy use, almost 57 percent citing cost savings, over 48 percent citing home improvement, approximately 49 percent citing comfort, and just over 25 percent citing benefit to the environment. When survey participants were asked to identify all of the barriers they encounter when making energy-saving changes in their home, over 82 percent of respondents indicated the biggest barrier was cost. Figure 13 below shows benefits experienced by category and percent.

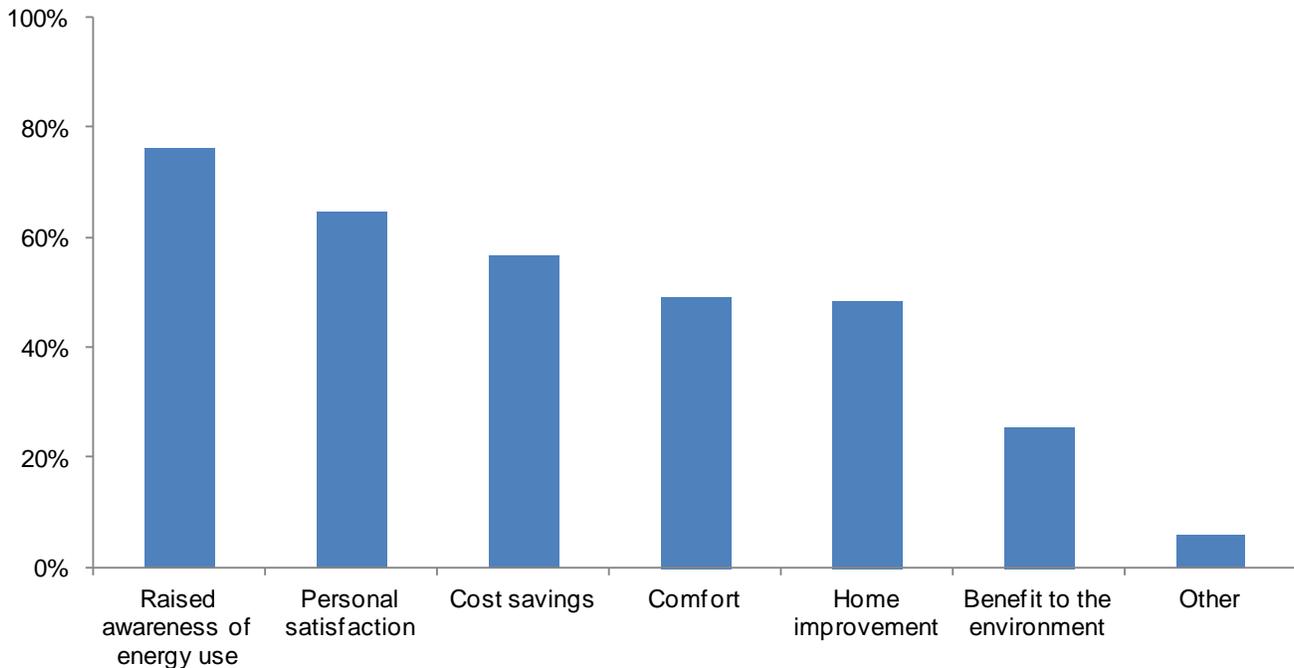


Figure 13. Program participants' benefits experienced

2016 Program and Marketing Strategies

As the cost of other types of LED bulbs decreases and the program's current stock of CFLs depletes, Idaho Power will use LED bulbs wherever possible.

In first quarter 2016, the program will expand by becoming fuel neutral. The 2016 goal is 600 audits, with approximately half being for all-electric homes and half for homes with other fuel sources for space and water heating.

All marketing materials will be updated to reflect the program changes for 2016. In 2016, Idaho Power will continue recruiting participants through small batches of direct-mail letters and through the use of the trade show booth backdrop at select events.

It is mandatory that HPSs either have previous training in Combustion Appliance Zone (CAZ) testing within the last six months, or participate in Idaho Power's CAZ refresher class or attend a refresher class offered through another source. Although all HPSs have previous CAZ training, Idaho Power will provide a refresher course during 2016.

Home Improvement Program

| | 2015 | 2014 |
|--|-----------|-----------|
| Participation and Savings | | |
| Participants (homes) | 408 | 555 |
| Energy Savings (kWh) | 303,580 | 838,929 |
| Demand Reduction (MW) | n/a | n/a |
| Program Costs by Funding Source | | |
| Idaho Energy Efficiency Rider | \$259,898 | \$315,616 |
| Oregon Energy Efficiency Rider | \$0 | \$0 |
| Idaho Power Funds | \$12,611 | \$9,101 |
| Total Program Costs—All Sources | \$272,509 | \$324,717 |
| Program Levelized Costs | | |
| Utility Levelized Cost (\$/kWh) | \$0.046 | \$0.020 |
| Total Resource Levelized Cost (\$/kWh) | \$0.152 | \$0.055 |
| Benefit/Cost Ratios | | |
| Utility Benefit/Cost Ratio | 1.91 | |
| Total Resource Benefit/Cost Ratio | 0.67 | |

Description

The Home Improvement Program has offered incentives to homeowners, multifamily building owners, and property managers since its startup in 2008 for upgrading insulation and windows in electrically heated homes/units. To qualify for an incentive under this program, the home must be a single-family home, a multifamily structure with individually metered units on a residential rate, or a manufactured home in Idaho Power's service area in Idaho. The home/units must have an electric heating system serving at least 80 percent of the home's conditioned floor area. The heating system can be a permanently installed electric furnace, heat pump, or electric zonal heating system. Insulation must be professionally installed between conditioned and unconditioned space by an insulation contractor. Windows must be professionally installed. Customers must use a participating contractor to qualify for the Idaho Power incentive, which is processed by Idaho Power.

The program details include the following:

- Customer incentives to Idaho residential customers, multifamily building owners, and property managers in Idaho Power's service area for additional insulation professionally installed are 15 cents per ft² for attic insulation and 50 cents per ft² for wall and under-floor insulation.
- Existing attic insulation must be an R-20 or less to qualify, and the final R-Value must meet the local energy code. Idaho Power's service area consists of climate zones 5 and 6, resulting in an R-38 requirement for climate zone 5 and R-49 requirement for climate zone 6.
- The existing insulation level in walls must be R-5 or less, and the final R-Value must be R-19 or fill the cavity.

- The existing insulation level under floors must be R-5 or less, and the final R-Value must be R-30 or fill the cavity.
- Customer incentives are \$2.50 per ft² of window area to Idaho residential customers for installing energy-efficient windows and/or sliding glass doors with a U-Factor of 0.30 or lower.
- Pre-existing windows/sliding glass doors must be single- or double-pane aluminum or single pane wood.

2015 Program and Marketing Activities

On March 1, 2015, Idaho Power released an updated application form. The application indicated program updates for customers. A new brochure was also created to communicate the changes to customers.

The RTF determined there were no difference in savings when modeling savings with and without air sealing and duct sealing prior to insulating. The RTF performed additional modeling and quality control (QC) checks on the weatherization measures. Effective March, 1 2015, Idaho Power removed air sealing and duct sealing from the insulation incentive requirements.

To promote the program, the company ran a series of newspaper ads multiple times during March and April 2015. Idaho Power placed ads in newspapers in rural areas with a higher concentration of electrically heated homes (a program eligibility requirement). The company sent three informational bill inserts—April, July, and September—and sent a targeted direct-mail letter in June 2015.

Idaho Power ran Facebook ads from June 8 through July 31, resulting in 9,033 clicks on the ad on Facebook pages at \$0.66 per click, and 229,865 customers saw the ad on Facebook. In 2015, the Facebook benchmark cost-per-click was \$0.80. Anything at or under that level is good; the \$0.66 per click is considered above expectations for a utility company niche product.

In the May energy efficiency issue of *Connections*, the newsletter sent to more than 415,000 customers with their bills, the back-page display ad featured the Home Improvement Program. In addition, the September issue included a story about insulation and energy-efficient windows, with specific program information.

As Idaho Power reviewed the participation eligibility of the Home Improvement Program, it became clear there was an opportunity to market the program more specifically to multifamily buildings. At the December 2015 EEAG meeting, members indicated support for targeted marketing of the Home Improvement Program to electrically heated multifamily buildings with five or more individually metered residential rate units. In late 2015, Idaho Power sent letters to property managers and building owners.

Cost-Effectiveness

In 2015, the Home Improvement Program was not cost-effective from the TRC perspective. The RTF reduced savings for single-family home weatherization projects in 2015. With the changes, average savings estimates per project were just under 50 percent of 2014 projects. The lower savings were approved by the RTF in October 2014 and revised in the spring of 2015. These new savings were a result of the nearly 18-month RTF process to calibrate residential savings models. As a consequence,

four of the six measures offered in the Home Improvement Program are no longer cost effective from the TRC perspective. Idaho Power incorporated the new savings for all 2015 projects. In 2016, the company will evaluate the non-cost-effective measures and the impact on program's cost-effectiveness to determine if these measures should be modified or removed from the program. Idaho Power will present possible program modification and seek suggestions from EEAG.

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

Customer Satisfaction and Evaluations

For QA purposes, third-party contractors performed random reviews of at least 5 percent of all installations completed in the Home Improvement Program. QA contractors verified the correct installation of measures. In addition, the QA contractor assisted and educated the contractors on program requirements. Of the 27 QA inspections completed in 2015, no major issues were reported.

The program incentive application form included an optional question asking customers how they heard about the program. Of the 383 applications, 356 customers answered the marketing question. The results are as follows:

- 188 respondents (52.8%) heard about the program from a program contractor.
- 84 respondents (23.6%) heard about the program from an Idaho Power bill insert.
- 35 respondents (9.8%) heard about the program from the Idaho Power website.
- 33 respondents (9.3%) received a referral from a friend or acquaintance.
- 10 respondents (2.8%) heard about the program from a direct-mail piece.
- 6 respondents (1.7%) heard about the program from a newspaper, online, or television/radio ad.
- 0 respondents (0%) heard about the program from a home improvement show or fair.

Idaho Power contracted with AEG to conduct an impact and process evaluation for program year 2014. The results of the impact analysis show that in 2014, the Home Improvement Program more than doubled its savings goal, achieving 845 MWh of savings with a realization rate of 100.7 percent.

Key findings from the process evaluation indicate the contractors and the program specialist report participants are satisfied with the program, the savings achieved, and the improved comfort of their homes. Also, the network of installation contractors are engaged in the program. AEG also found marketing is effective, and most contractors would like to see these efforts increased but noted that the target market is small and eligibility criteria (e.g., existing insulation levels) is strict, which may make achieving future participation and savings goals more challenging, although this has not been a problem to date.

AEG also provided recommendations to enhance program effectiveness and improve accuracy of program savings. These recommendations and Idaho Power's responses are described below.

AEG recommended increasing consistency/clarity between supporting documentation and the program database, requiring more standardized documentation to prevent errors in the estimations of savings,

and requiring more consistent documentation in the project application and submitted materials to clearly identify all variables necessary for the calculation of savings. The submitted documentation was often disorganized and sometimes incomplete. AEG stated Idaho Power should have a standardized documentation package for each project that includes a similar checklist completed by Idaho Power that verifies all required information has been submitted. The information should then be carefully and completely input in the tracking database.

Recently Idaho Power improved the application, adding a checklist itemizing the documentation required. In 2016, the company will establish a standardized checklist for each project to track and verify information. Idaho Power considered this recommendation and determined some confusion may have arisen due to the fact many pieces of the requested, submitted documentation had to be broken apart, scanned and emailed to the evaluators. Due to this process, the documentation may have appeared more disorganized and incomplete than it was. Idaho Power believes it carefully and completely inputs all of the required program information into the program database, and this process serves Idaho Power's external reporting needs.

The evaluation team recommended using the current versions of the RTF UES workbooks to discern between residential segments, to estimate NEBs, and to improve the overall accuracy of impact estimates. The project application discerns between standard single-family, manufactured, and multifamily homes. These entries should be emphasized, recorded in the tracking database, and used to determine the correct savings for the respective residential building segment. In addition, adopting the current versions of the Single Family and Manufactured Home Weatherization workbooks would allow Idaho Power to estimate NEBs for the Home Improvement Program.

In response, Idaho Power added a field in the Home Improvement Program database discerning between standard single-family, manufactured, and multifamily homes.

AEG recommended adding sliding glass doors to the measure description on the application. Because sliding glass doors are specifically included in the RTF UES workbook for the window upgrade weatherization measures, sliding glass doors should be also included in the measure description in the project application. In response to the recommendation from the AEG evaluation, Idaho Power will add sliding glass doors to the program application.

Additionally, AEG recommended Idaho Power require that contractors match U-factors (taken from the National Fenestration Rating Council [NFRC] window stickers) to each window on the invoice.

In response, Idaho Power considered this recommendation and determined that the current process of U-factor verification correctly captures the U-factor of each window. The evaluation team recommended that since the RTF only prescribes savings for U-30 and U-22 window upgrades, Idaho Power should consider a cutoff (e.g. U-25) where windows with lower than U-25 would be evaluated with savings for U-22 window upgrades. This would require calculating an average U-value weighted by window area. Idaho Power is currently evaluating this recommendation.

Last, AEG recommended marketing efforts be increased. Or, if that is not possible due to cost-effectiveness issues, focus marketing dollars on the more proven strategies, including contractor outreach and bill inserts. Idaho Power will take this recommendation. Three bill inserts are tentatively scheduled for 2016.

2016 Program and Marketing Strategies

Idaho Power plans to market this program through a variety of channels to maintain customer awareness in 2016. Plans include using bill inserts, direct mail, newspaper advertising, and contractor support. A consistent look and feel demonstrating program measures will be used in all program marketing materials.

Idaho Power will continue to market directly to multifamily building owners in 2016.

Oregon Residential Weatherization

| | 2015 | 2014 |
|--|---------|---------|
| Participation and Savings | | |
| Participants (audits/projects) | 19 | 13 |
| Energy Savings (kWh) | 11,910 | 11,032 |
| Demand Reduction (MW) | n/a | n/a |
| Program Costs by Funding Source | | |
| Idaho Energy Efficiency Rider | \$0 | \$0 |
| Oregon Energy Efficiency Rider | \$5,341 | \$5,234 |
| Idaho Power Funds | \$467 | \$228 |
| Total Program Costs—All Sources | \$5,808 | \$5,462 |
| Program Levelized Costs | | |
| Utility Levelized Cost (\$/kWh) | \$0.028 | \$0.028 |
| Total Resource Levelized Cost (\$/kWh) | \$0.050 | \$0.050 |
| Benefit/Cost Ratios | | |
| Utility Benefit/Cost Ratio | n/a | |
| Total Resource Benefit/Cost Ratio | 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 offered under Oregon Schedule 78 since 1980. Upon a customer's request, an Idaho Power CR visits the home to analyze it for energy efficiency opportunities. An estimate of costs and savings for specific measures is given to the customer. Customers may choose either a cash incentive or a 6.5-percent interest loan for a portion of the costs for weatherization measures.

2015 Program and Marketing Activities

During May, Idaho Power sent every Oregon residential customer an informational brochure about energy audits and home weatherization financing. Nineteen Oregon customers responded. Each customer returned a card from the brochure indicating interest in a home energy audit, weatherization loan, or incentive payment. Nineteen customers requested audits, 19 audits were completed, and four incentives paid.

Idaho Power issued four incentives totaling \$1,742.32 for 11,910 kWh savings. Three incentives and related savings were for ceiling insulation measures, and one incentive was paid for a combination of wall and attic insulation. There were no loans made through this program during 2015.

Cost-Effectiveness

The Oregon Residential Weatherization program is a statutory program described in Oregon Schedule 78. The cost-effectiveness of this program is defined within this schedule. Pages 3 and 4 of the schedule list the measures determined to be cost-effective and the specified measure life cycles for specific measures. This schedule also includes the cost-effective limit (CEL) for measure lives of 7, 15, 25, and 30 years.

Four savings projects were completed in 2015. Projects consisted of increasing attic, floor, and wall insulation. The projects combined for an annual energy savings of 11,910 kWh at a levelized TRC of 5.0 cents per kWh over the 30 year attic insulation measure life as defined by Oregon Schedule 78. The Oregon savings schedule has higher savings than other weatherization programs, and the levelized costs contain little program cost, resulting in a lower levelized cost than other weatherization programs.

2016 Program and Marketing Strategies

Plans for the upcoming year include notifying customers in their May bill about the program. Idaho Power will complete requested audits and fulfill all cost-effective incentive and loan applications.

Rebate Advantage

| | 2015 | 2014 |
|--|----------|----------|
| Participation and Savings | | |
| Participants (homes) | 58 | 44 |
| Energy Savings (kWh) | 358,683 | 269,643 |
| Demand Reduction (MW) | n/a | n/a |
| Program Costs by Funding Source | | |
| Idaho Energy Efficiency Rider | \$80,243 | \$57,155 |
| Oregon Energy Efficiency Rider | \$4,351 | \$5,324 |
| Idaho Power Funds | \$843 | \$753 |
| Total Program Costs—All Sources | \$85,438 | \$63,231 |
| Program Levelized Costs | | |
| Utility Levelized Cost (\$/kWh) | \$0.014 | \$0.014 |
| Total Resource Levelized Cost (\$/kWh) | \$0.020 | \$0.020 |
| Benefit/Cost Ratios | | |
| Utility Benefit/Cost Ratio | 4.54 | |
| Total Resource Benefit/Cost Ratio | 3.45 | |

Description

Initiated in 2003, the Rebate Advantage program helps Idaho Power customers in Idaho and Oregon with the initial costs associated with purchasing a new, energy-efficient, ENERGY STAR[®] qualified manufactured home. This enables the homebuyer to enjoy the long-term benefit of lower electric bills and greater comfort provided by these homes. 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 promotes and educates buyers and retailers of manufactured homes about the benefits of owning energy-efficient models. The Northwest Energy Efficient Manufactured (NEEM) housing program establishes QC and energy efficiency specifications for qualified homes. NEEM is a consortium of manufacturers and state energy offices in the Northwest. In addition to specifications and quality, NEEM tracks the production and on-site performance of ENERGY STAR qualified manufactured homes.

Idaho Power residential customers who purchased a new, all-electric, ENERGY STAR qualified manufactured home in 2015 and sited it in Idaho Power's service area were eligible for \$1,000 through the Rebate Advantage program. Salespersons received \$200 for each qualified home they sold.

2015 Program and Marketing Activities

During 2015, Idaho Power paid 58 incentives on new manufactured homes, which accounted for 358,683 annual kWh savings. One bill insert, shared with Energy House Calls, was sent to all Idaho and Oregon customers in February 2015.

Idaho Power continued to support dealerships in 2015 by providing them with Rebate Advantage brochures, banners, and applications as needed. CRs visited these dealerships to distribute materials, promote the program, and answer salespersons' questions.

Cost-Effectiveness

In 2015, Idaho Power used the same savings and assumptions as were used in 2014. The measures remained cost-effective for 2015, but the measure is currently considered an RTF planning measure.

2016 Program and Marketing Strategies

In 2016, the RTF will approve research plans around manufactured home new construction and will look at analyzing savings impacts of new-construction model calibrations. For details, see *Supplement 1: Cost-Effectiveness*.

The program remains the same for 2016. Idaho Power plans to distribute two information bill inserts for 2016—one in March and one in October. Facebook ads will be used throughout the spring and summer to educate and engage potential participants. Additionally, Idaho Power will continue to support dealers by providing program materials as needed.

See ya later, refrigerator®

| | 2015 | 2014 |
|--|-----------|-----------|
| Participation and Savings | | |
| Participants (refrigerators/freezers) | 1,630 | 3,194 |
| Energy Savings (kWh) | 720,208 | 1,390,760 |
| Demand Reduction (MW) | n/a | n/a |
| Program Costs by Funding Source | | |
| Idaho Energy Efficiency Rider | \$212,674 | \$562,002 |
| Oregon Energy Efficiency Rider | \$11,497 | \$12,410 |
| Idaho Power Funds | \$3,007 | \$1,639 |
| Total Program Costs—All Sources | \$227,179 | \$576,051 |
| Program Levelized Costs | | |
| Utility Levelized Cost (\$/kWh) | \$0.048 | \$0.062 |
| Total Resource Levelized Cost (\$/kWh) | \$0.048 | \$0.062 |
| Benefit/Cost Ratios | | |
| Utility Benefit/Cost Ratio | 1.21 | |
| Total Resource Benefit/Cost Ratio | 1.53 | |

Description

The See ya later, refrigerator® program has acquired energy savings through the removal of qualified refrigerators and stand-alone freezers in residential homes throughout Idaho Power's service area in Idaho and Oregon since 2009.

Idaho Power has contracted with JACO to provide most services for this program, including customer service and scheduling, unit pickup, unit recycling, reporting, marketing assistance, and incentive payments. Marketing assistance has been provided by JACO through Runyon Saltzman Einhorn (RSE). RSE is a marketing company that assists utility appliance recycling programs throughout the country. Idaho Power provides participant confirmation, additional marketing, and internal program administration.

Applicants enroll online or by phone. Idaho Power screens each applicant to confirm eligibility. JACO screens each applicant to confirm the refrigerator or freezer unit under consideration met all program eligibility requirements, including being residential grade, at least 10 cubic feet (ft³) as measured using inside dimensions, no larger than 30 ft³, and in working condition. The program targeted older, extra units for maximum savings.

2015 Program and Marketing Activities

To maintain cost-effectiveness, the company looked at several program options, including restricting the age of eligible appliances and removing the incentive. After consulting with EEAG, it was determined that removing the incentive was the preferable option. This decision was partially based on maintaining customer satisfaction and the ease of customer participation in the program.

Beginning February 1, 2015, in Idaho and Oregon, Idaho Power stopped offering the \$30 incentive to customers for their participation in the program. While a 30-percent reduction was expected to result

from the removal of the \$30 incentive, See ya later, refrigerator® program participation declined by 43 percent between 2014 and 2015, demonstrated in Figure 14.

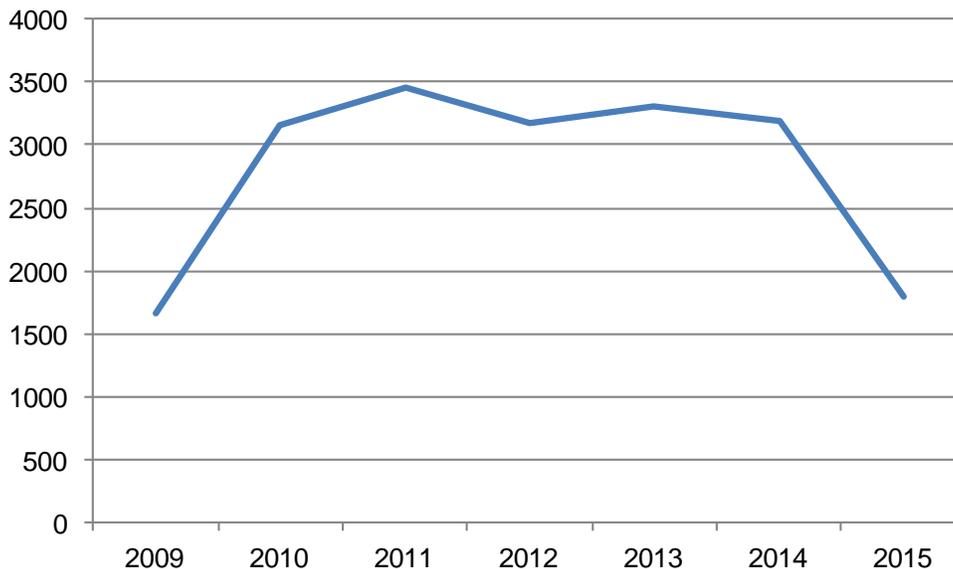


Figure 14. See ya later, refrigerator® participation by year

To increase participation and satisfaction with the program, on July 15 Idaho Power began distributing two free LED bulbs at the time of the pickup.

There was a slight increase in participation during July, as in previous years. Whether or not this increase was due to the addition of the LED bulb incentive or to the natural cycle of enrollment is undetermined.

Idaho Power used an integrated, layered approach to market the program in 2015. All marketing tactics in 2015 used like imagery and messaging to build awareness and recognition. The messaging focused on convenience. Survey data showed 52 percent of participants reported they received the most value from the convenience of the program. Idaho Power and RSE used bill inserts, direct mail, and earned media through two television spots to promote the program.

Bill inserts were sent during March, April, June, July, August, and October. In early July, a direct-mail postcard was sent to a highly targeted audience. Idaho Power identified the target audience for the program as older, empty-nesters who own their home. The company sent the mailing to higher energy users and longer-term customers of Idaho Power that were likely to represent the target audience.

In July, Idaho Power representatives and JACO staff appeared in a live television broadcast in the Boise/Nampa market promoting the program and demonstrating how materials from refrigerators can be recycled and reused. In addition, there were two opportunities to promote the program during news programs in both the Boise/Twin Falls and Pocatello markets. In the March energy efficiency segment on Boise's KTVB, Idaho Power discussed how much energy older refrigerators use and that spring is the perfect time to recycle them—providing contact information for the program. In August, the program was promoted live on the KPVI morning news.

During October, Idaho Power began placing Facebook boosted posts to help increase enrollments. A boosted post resembles a traditional Facebook post, but it appears higher in News Feeds, increasing the chance the targeted audience will see it. Boosting posts can help increase audience engagement and

increase the people interacting with the content shared on Facebook. There were two versions used during this campaign. The first post emphasized the convenience factor of the program. Idaho Power designed the second version for the company's target audience of empty-nesters with the tag line Retire Your Old Fridge. While both posts received several "Likes" on Facebook and were shared by many customers, the first post received more "Likes." Idaho Power also ran digital ads with the Retire Your Old Fridge theme in conjunction with the Facebook boost.

RSE managed a nine-month online Google AdWords™ campaign. Google AdWords brings up an ad based on specific combinations of search terms. As of July, the campaign resulted in 9,087 impressions and a CTR of 3.53 percent.

In late November, Idaho Power learned JACO had entered into receivership and ceased operations. Idaho Power did not have any prior knowledge of this change and was therefore unable to make program preparations. The program was suspended in Idaho on November 23 and in Oregon upon OPUC approval on December 16, 2015. Idaho Power subsequently contracted with Planetary Graffiti, JACO's subcontractor JACO used to pickup units, to pick up the remaining units that had been previously scheduled through JACO. After contacting each customer to reschedule their pickups, it was discovered that only 32 of the original 71 units scheduled needed to be picked up. The remaining 39 pickups were cancelled due to the customer finding alternate ways to remove the units prior to receiving the call to reschedule the pickup, or the customer not returning phone calls after multiple attempts.

Cost-Effectiveness

In 2014, the RTF reviewed and updated savings assumptions for freezer and refrigerator decommissioning. These savings were applied in 2015. Freezer decommissioning savings increased from 478 to 570 annual kWh. Refrigerator decommissioning savings decreased from 424 to 356 annual kWh. The measure life also decreased from 7 years to 6 years. Since refrigerators account for approximately 77 percent of the program, the decrease in savings and measure life impacted the program. These assumptions will apply in 2015 and 2016.

In 2014, the program had a UC and TRC of 0.86. To improve the program's cost-effectiveness, Idaho Power removed the \$30 incentive per unit to decrease the program costs. Instead of a monetary incentive, Idaho Power offers participants two LED bulbs for each recycled unit. Idaho Power applies the RTF giveaway savings for LED general purpose bulbs—9 annual kWh per unit.

In late 2015, the RTF revisited and approved new savings for freezer and refrigerator decommissioning, as well as LED bulbs. Idaho Power believes the program could be cost-effective in 2016 and will re-evaluate the cost-effectiveness using the new savings that will apply in 2017. The program now has a UC of 1.21 and TRC of 1.53.

For cost-effectiveness details and assumptions, see *Supplement 1: Cost-Effectiveness*.

Customer Satisfaction and Evaluations

In 2015, AEG conducted a process evaluation of the See ya later, refrigerator® program and an impact evaluation of the program for the year 2014. The results of the impact analysis show that the See ya later, refrigerator® program surpassed its goals, achieving 1,390,760 kWh in savings in 2014 with a 100-percent realization rate.

Other AEG key findings indicated the program is well run and complies with most of the best practices in the industry. AEG stated the See ya later, refrigerator® program has adequate staffing and high customer satisfaction. Other key findings are the program has the necessary QC procedures and is extremely well documented. AEG indicated the wealth of data captured by the program is exemplary and is analyzed by Idaho Power staff to continuously provide insight and improve the program.

Results from the process evaluation were positive, with minimal recommendations. Based on the process evaluation, the following recommendations were made to enhance program effectiveness and improve the transparency of reported savings and are followed by Idaho Power's response to the recommendations.

The group recommended that when no savings associated with a measure exist, Idaho Power explain why in the tracking database. Idaho Power's response to this recommendation is acknowledgement that this can occur when an ineligible unit is picked up. This requires approval and is very infrequent, occurring only once in 2014. As a result of the recommendation, Idaho Power added a new field to the tracking database to capture this additional information.

AEG suggested decreasing the time between scheduling and pickup to seven days or less. Idaho Power's average time between scheduling and pickup is 13 days. In response, Idaho Power acknowledges it would be ideal to have all units picked up within seven days or less, yet due to the expansive Idaho Power service area and the limited number of crews to pick up the units, this recommendation may not be attainable. Pickups are grouped by area when scheduling to try to minimize the time between scheduling and pick up.

AEG also suggested Idaho Power use the updated RTF workbook (v.3.2) in the future and include NEBs in the cost-effectiveness analysis. Idaho Power freezes savings assumptions when the budgets and goals are set for the next calendar year. The most recent RTF workbook available at that time will be used.

Last, AEG suggested Idaho Power experiment with different promotional offerings to increase program participation. In response, Idaho Power began offering two free LED bulbs in July in an attempt to increase participation.

In addition to the formal evaluation conducted by AEG, JACO also tracked individual statistics for each unit collected, including information on how customers heard about the program and when customers enrolled. Statistics about the unit collected include the age of the unit, its location on the customer's property, and other data.

The 2015 unit data showed that 23 percent of units the program picked up were stand-alone freezers, and 77 percent of the units were refrigerators. Seventy-three percent of the units were secondary, 12 percent were primary, and 15 percent were unknown. In 2015, 34 percent of the units collected were manufactured from 1965 to 1990, which generally represents the least efficient years of refrigerator manufacturing. By comparison, in 2014, 50 percent of the units were of this vintage.

JACO and Idaho Power also tracked data related to the marketing effectiveness of the program. Results of customer tracking information indicate 55 percent of customers learned of the program through bill inserts. Sixteen percent of customers learned of the program through a friend or neighbor. Although appliance retailers also refer customers to the program, Idaho Power does not pursue this marketing channel because the program focuses on the removal of secondary units rather than replacing existing units. Retailers sell new units to replace older units. In addition, a retailer selling a new unit will usually pick up and recycle the old one.

Seventy four percent of customers who enrolled used the toll-free telephone number, and 26 percent used the online enrollment form. Idaho Power used the customer information JACO collected and the surveys from Idaho Power evaluations to target future marketing efforts and increase the effectiveness of marketing.

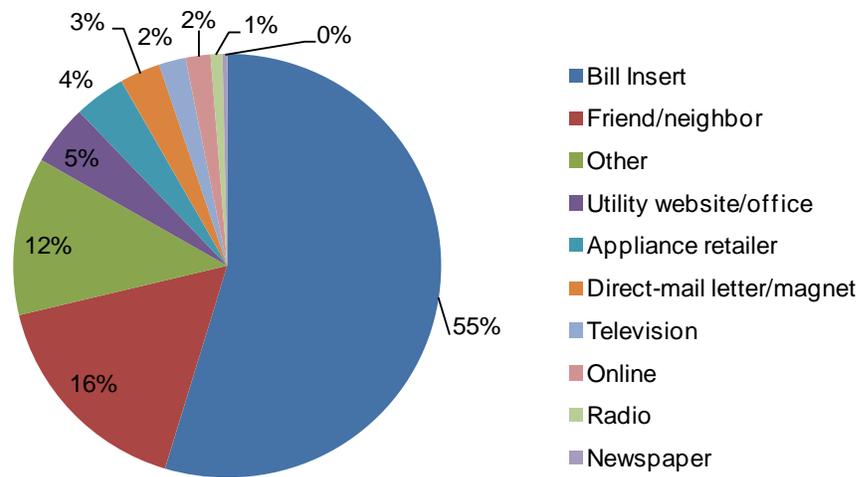


Figure 15. How customers heard about See ya later, refrigerator®

Figure 15 indicates ways customers heard about the program. The Other category includes sources, such as community events, repeat customers, the truck wrap ad, and unknown sources.

2016 Program and Marketing Strategies

Idaho Power is currently in the process of reviewing proposals for potential vendors for the program to consider continuing the program in 2016.

Should the program continue in 2016, marketing tactics will include bill inserts and online Facebook posts. The program would continue to be promoted at community events and by Idaho Power CRs.

Shade Tree Project

| | 2015 | 2014 |
|---|-----------|-----------|
| Participation and Savings | | |
| Participants (trees) | 1,925 | 2,041 |
| Energy Savings (kWh) | n/a | n/a |
| Demand Reduction (MW) | n/a | n/a |
| Program Costs by Funding Source | | |
| Idaho Energy Efficiency Rider | \$99,672 | \$143,750 |
| Oregon Energy Efficiency Rider [*] | -\$66 | \$66 |
| Idaho Power Funds | \$5,786 | \$3,474 |
| Total Program Costs—All Sources | \$105,392 | \$147,290 |
| Program Levelized Costs | | |
| Utility Levelized Cost (\$/kWh) | n/a | n/a |
| Total Resource Levelized Cost (\$/kWh) | n/a | n/a |
| Benefit/Cost Ratios | | |
| Utility Benefit/Cost Ratio | n/a | |
| Total Resource Benefit/Cost Ratio | n/a | |

^{*}Reversal of a 2014 charge to the Oregon Rider.

Description

The Shade Tree Project began as a pilot in 2013. According to the US Department of Energy (DOE), a well-placed shade tree can reduce energy used for summer cooling by 15 percent 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 developments in urban forestry—the state-sponsored Treasure Valley Urban Tree Canopy Assessment and the Arbor Day Foundation’s Energy Saving Trees tool—provided Idaho Power with the tools to develop a shade tree project.

The Shade Tree Project was launched in Ada and Canyon counties, offering free shade trees to residential customers. Participants enroll using the online Energy Saving Trees Tool—developed by the Arbor Day Foundation—and pick up their tree at specific events. Unclaimed trees are donated to the city partners and schools.

Using the online enrollment tool, participants map their home, 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 received additional education on where to plant trees for maximum energy savings and other tree care guidance from experts. Local specialists included city arborists from Boise,

Kuna, Nampa, and Meridian; Idaho Power utility arborists; Canyon County master gardeners; and College of Western Idaho (CWI) horticulture students.

2015 Program and Marketing Activities

In 2015, Idaho Power distributed 1,925 shade trees to residential customers through the Shade Tree Project. Because the best time to plant shade trees is in the spring and fall, Idaho Power held offerings in October and April, with 801 trees and 1,124 trees distributed, respectively. Additionally, the City of Boise held a tree planting workshop in October to provide similar education to the formal Shade Tree Project, during which an additional 35 trees were given to residential customers.

Trees were purchased from regional growers in advance of each event. The species offered for each event depended on the trees available at time the trees were purchased. Idaho Power worked with its own arborists, along with city and state arborists, to select a range of tall growing, deciduous trees that should work well with the climate and soils of the two participating counties.

For the spring offering, Idaho Power used direct mail to market this program and used the state-sponsored Treasure Valley Urban Tree Canopy Assessment to develop a mailing list. The assessment is a geographic information system (GIS)-based study that mapped land use throughout the Treasure Valley, including existing trees and vegetation, buildings, roads, waterways, and parking lots. The study identified areas where a large shade tree could be planted. Idaho Power used the study to identify potential planting sites on residential properties situated to the west of the home. The mailing list was created from the results. The spring mailing was successful, as most trees were reserved within nine days. Idaho Power collected names and emails of people who expressed interest after enrollment closed and created a waiting list of potential participants.

In fall 2015, Idaho Power marketed the program to customers captured on the spring waiting list and using a variety of word-of-mouth tactics. Idaho Power distributed flyers about the project at the FitOne Expo in Boise. Project Partners, such as the cities of Nampa, Kuna, and Boise, shared information through their networks. Idaho Power announced the Shade Tree Project to allied groups, such as the Idaho Conservation League, Idaho Chapter of the US Green Building Council, and Treasure Valley Canopy Network. Information was sent to Green Team leads at large employers, such as Hewlett Packard, Wells Fargo, Ch2MHill, and Citi Bank. A boosted Facebook post was also used, which reached 10,747 people and resulted in 102 likes, 281 link clicks, 35 comments, and 54 shares.

Participants picked up their tree at prescheduled events held throughout the Treasure Valley. Four pickup events were held in the spring and four in the fall, conducted on different days at different locations. By offering several pickup days, locations, and times, 91 percent of enrolled participants picked up their trees.

During summer 2015, Idaho Power implemented an audit component to the project and conducted follow-up site visits at a subset of participant homes. Participants were picked at random from fall 2013 and spring 2014 offerings to ensure the trees would have had at least one full year in the ground prior to the evaluation. Two student evaluators, a recent graduate from the CWI Horticulture program and a Boise State University Environmental Sciences student, visited 312 homes and looked at 442 trees. The students took measurements on the orientation and distance from the home and captured geographic positioning system (GPS) coordinates for each tree. This data will be used to refine energy-savings calculations. The students also recorded variables related to overall tree health. Results were used to identify opportunities to improve education on tree planting and care. Improvements, such as a

tree-planting display and informational posters, were implemented in the fall. Additionally, participants now receive a tree-care newsletter approximately six to nine months after participation.

Information about the project was shared with all customers in the September energy efficiency issue of the *Connections* newsletter, sent to more than 415,000 customers with their bills. The cover story focused on how anyone can plant a tree for energy efficiency—*Planting Shade Trees for Energy Savings*. Upon completion of the fall offering, an item appeared in an October *News Briefs* sent to all media in the service area, *Shade Trees Provide Energy Savings—Idaho Power’s Shade Tree Project Completes Fall Offering*.

Data for the project, including the data from the 2015 summer audits, is now tracked in Idaho Power’s DSM database. The database was also integrated into a screening tool used during enrollment to determine whether participants meet the eligibility requirements for the project.

In 2015, this project was partially funded by a US Forest Service Western Competitive States Grant. The grant funded the trees for the fall offering and one of the summer audit evaluators. The grant also funded the development of several new educational pieces. The pieces included educational posters showing the energy and environmental benefits of urban trees and an automated graphic that showed how trees can shade homes during the summer.

Customer Satisfaction and Evaluations

After each offering, a survey was emailed to participants. Because customers have the option to select up to two trees during each offering, the survey was modified in early 2015. The survey asked questions related to marketing, tree-planting education, and the participant experience with the enrollment and tree pickup processes. Results are compared offering to offering to look for trends to ensure the program processes are still working and identify opportunities for improvement. Data are also collected about where the participant planted the tree and when. This data will be used to refine energy-savings estimates.

For the fall 2014 and spring 2015 offering, the participants were surveyed together, and the response rate was just over 49 percent. Participants were asked how much they would agree or disagree that they would recommend the project to a friend; just over 94 percent of respondents said they “strongly agreed,” and almost 5 percent said they “agreed.” Participants were asked how much they would agree or disagree that they were satisfied with the overall experience with the Shade Tree Project; over 89 percent of respondents indicated they “strongly agreed,” and over 8 percent “somewhat agreed” they were satisfied.

For the fall 2015 offering, the response rate was nearly 61 percent. Participants were asked how much they would agree or disagree that they would recommend the project to a friend; over 96 percent of respondents said they “strongly agreed,” and nearly 3 percent said they “agreed.” When participants were asked how much they would agree or disagree they were satisfied with the overall experience with the Shade Tree Project, over 93 percent of respondents indicated they “strongly agreed,” and just nearly 6 percent “somewhat agreed” they were satisfied. View survey information in *Supplement 2: Evaluation*.

2016 Program and Marketing Strategies

Idaho Power plans to continue the Shade Tree Project in 2016 using the Arbor Day enrollment tool and events to distribute the trees. Idaho Power will continue to market the program through direct mail

focusing on customers identified using the urban tree-canopy assessment. In addition, Idaho Power maintains a waiting list of customers that either heard about the program through a friend or relative or did not enroll in the last offering before it filled. Idaho Power will reach out to these customers through direct-mail or email. Idaho Power will continue to leverage allied interest groups and will use social media and boosted Facebook posts if enrollment response rates are not as successful as past years.

Idaho Power will continue to leverage grant funding to supply trees and develop educational materials. For spring 2016, Idaho Power and the grant partners are working on a local-tree-sourcing option, which may reduce program costs. Idaho Power will continue to collect metrics to evaluate program success and effectiveness. Surveys will be sent after each offering.

Simple Steps, Smart Savings™

| | 2015 | 2014 |
|--|-----------|------|
| Participation and Savings^a | | |
| Participants (products) | 9,343 | n/a |
| Energy Savings (kWh) | 770,822 | n/a |
| Demand Reduction (MW) | n/a | n/a |
| Program Costs by Funding Source | | |
| Idaho Energy Efficiency Rider | \$130,575 | n/a |
| Oregon Energy Efficiency Rider | \$6,676 | n/a |
| Idaho Power Funds | \$1,845 | n/a |
| Total Program Costs—All Sources | \$139,096 | n/a |
| Program Levelized Costs | | |
| Utility Levelized Cost (\$/kWh) | \$0.018 | n/a |
| Total Resource Levelized Cost (\$/kWh) | \$0.054 | n/a |
| Benefit/Cost Ratios | | |
| Utility Benefit/Cost Ratio | 3.37 | |
| Total Resource Benefit/Cost Ratio | 4.83 | |

^a Includes promotional based appliances, showerheads, and Home Products Program 2015 information.

Description

Initiated in 2015, the Simple Steps, Smart Savings program is a promotional based appliance program that aims to increase sales of qualified energy-efficient appliances in the marketplace. The payments provided by Idaho Power through this program are applied during special promotions, which align with holidays or events throughout the year at retail stores. Incentives are shared between the retailer, manufacturer, and the customer. The amounts provided to each may differ between promotions and between retailers and manufacturers. Retailer and manufacturer incentives may be provided as co-marketing dollars to the retailer or manufacturer to fund activities such as promotional events, special product placement, point-of-purchase signage, retailer activities, event kits, sales associate training, training material, and other marketing activities during the promotional periods. Customer rewards may include, but are not limited to, retailer gift cards or retailer credit to the customer for the purchase of qualified products. These promotions are currently only available in Idaho. Simple Steps, Smart Savings also includes promotions using retailer markdowns and retailer/manufacturer incentives. Markdowns reduce retail-end prices to the customer at the point-of-purchase. Retailer/manufacturer incentives drive the manufacture, distribution, and promotion of more energy-efficient consumer products at the retail level. One measure Idaho Power offered through the retailer markdown model since 2010 is low-flow showerheads.

Through this program, Idaho Power payments go to reduce the cost of the showerheads for customers at the retail level, as well as to retailers and manufacturers to drive the manufacture, distribution, and promotion of these products. In 2015, Idaho Power began providing incentives for appliances.

Idaho Power also participates 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.

All Simple Steps, Smart Savings promotions are administered by the BPA and coordinated by CLEAResult.

2015 Program and Marketing Activities

Prior to 2015, Idaho Power provided incentives to customers for the purchase of ENERGY STAR rated refrigerators and freezers through the Home Products Program. In 2014, the baseline threshold used to calculate energy savings was updated, and refrigerator and freezer incentives were no longer cost-effective. Idaho Power discontinued these incentives for new purchases effective January 1, 2015 to Idaho customers and January 14, 2015 to Oregon customers.

Several methods were used to notify stakeholders of the removal of refrigerator and freezer incentives. Idaho Power mailed multiple letters to retailers to alert them of the changes. Idaho Power CRs visited all participating retailers in November to advise them of the change to the program. CRs returned to the retailers during the first week of January to remind them of the change and to pick up all remaining Home Products Program applications still on hand. Idaho Power updated the company's Home Products Program website in November to notify customers of the upcoming discontinuance of the incentives. The company updated the Idaho Power website again in January to let customers know incentives were no longer available through the program.

Though the incentives were discontinued in January for new purchases, the Home Products Program continued to pay incentives for qualifying purchases that had been made within 120 days from the date of purchase prior to that time. Through the Home Products Program, Idaho Power paid 192 appliance incentives during 2015, resulting in 5,722 kWh annual savings. Ninety-three percent of incentives were for refrigerators and 7 percent were for freezers. Additionally, Idaho Power paid incentives on 9,025 showerheads, sold under the regional BPA Simple Steps, Smart Savings promotion, resulting in 749,854 annual kWh savings.

In 2015, Idaho Power participated in two major Simple Steps, Smart Savings appliance promotions. Retailers that participated in the 2015 promotions within Idaho Power's service area were Sears, Sears Hometown, and The Home Depot.

The Labor Day promotion ran for two weeks in September and offered a \$30 store gift card or \$30 retailer credit to customers for the purchase of any ENERGY STAR-rated clothes washer. Idaho Power customers bought 126 units during this promotion. The Black Friday Promotion offered a \$10 store gift card or \$10 retailer credit to customers for the purchase of any ENERGY STAR-rated clothes washer and ran the month of November and first week of December. Results from the Black Friday event will be reported in the 2016 report due to the lag time in reporting of sales data. The reduction in incentives from one promotion to the next was a result of a decrease in the savings due to federal standards change, from 132 kWh to 73 kWh as of October 1, 2015, following the new BPA Implementation Manual.

To help support the promotions, table tents and static clings were displayed on all qualifying appliances. These pieces informed customers about the promotion and the incentive they would receive. In-store gift cards were placed in gift card holders that displayed the Idaho Power logo. For purchases from Sears Hometown, where the customer received an instant markdown, customers also received a thank-you card that displayed the Idaho Power logo. In-store events were held at all participating retailers during the promotion. At each event, Idaho Power and CLEAResult personnel staffed a table and answered customer questions about the promotion. To further educate customers about the promotions, CLEAResult created an Idaho Power-branded promotional landing page that highlights promotion

details and participating retailers. During the promotions, Idaho Power placed Facebook posts to notify customers of the details.

Cost-Effectiveness

Idaho Power used the same cost-effectiveness UES assumptions in 2015 for the Simple Steps, Smart Savings as were used in 2014 for showerheads in the Home Products Program. In 2015, the RTF reviewed and updated the savings assumptions showerheads. The parameters that impacted the savings for showerheads the most were changes to the baseline showerhead, the showers per person per year, and the annual usage of each showerhead. These new savings will be applied in 2016.

In September 2014, the federal standards for refrigerators and freezers increased 20 to 30 percent depending on the product class. The RTF discussed the impact of these federal standard changes, which raised the baseline used to calculate the electric energy savings estimates. As a result of these higher standards, the annual gross energy savings for refrigerators dropped from 29 to 21 kWh per year, and freezers dropped from 40 to 23 kWh per year. The lower DSM alternate costs from the 2013 IRP as well as the lower savings estimates from the RTF resulted in the measures no longer being cost-effective under the mail-in incentive model. Idaho Power removed refrigerators and freezers from its mail-in rebate program in early 2015. For the appliances purchased in 2014 and incented in 2015, Idaho Power applied the kWh savings from before the federal standards change due the lingering inventory of appliances not meeting the new standard currently in the marketplace.

In 2015, Idaho Power participated in two major appliance promotions. After reviewing the appliances offered in each promotion, it was determined that only clothes washers would be cost-effective. Idaho Power applied the per unit savings from the approved BPA's UES Measure List. While BPA applies the annual generator busbar savings of 132 kWh per unit, Idaho Power applies the annual site savings of 121 kWh per unit. This difference is due to the different line losses applied by Idaho Power and BPA.

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

2016 Program and Marketing Strategies

Idaho Power has committed to participate in the 2016 Simple Steps, Smart Savings appliance promotions. Five promotions are tentatively scheduled: February for President's Day, May to June for Memorial Day, July for Independence Day, August to September for Labor Day, and November to December for Black Friday. Current participating retailers are Sears, Sears Hometown and The Home Depot. CLEAResult is in the process of working with local independent retailers to encourage their participation in the program. For each promotion, Idaho Power will provide incentives only for products that meet Idaho Power's cost-effectiveness requirements.

Idaho Power will also continue participation in the Simple Steps, Smart Savings energy-efficient showerheads buy-down program in 2016.

CLEAResult will continue to manage marketing at retailers, including point-of-purchase signs, Idaho Power-branded gift card holders, and thank-you cards. When provided, Idaho Power will continue to use Idaho Power-branded promotion landing pages and Facebook posts to notify customers of the promotions.

Weatherization Assistance for Qualified Customers

| | 2015 | 2014 |
|--|-------------|-------------|
| Participation and Savings | | |
| Participants (homes/non-profits) | 243 | 255 |
| Energy Savings (kWh) | 550,021 | 533,800 |
| Demand Reduction (MW) | n/a | n/a |
| Program Costs by Funding Source | | |
| Idaho Energy Efficiency Rider | \$0 | \$0 |
| Oregon Energy Efficiency Rider | \$0 | \$0 |
| Idaho Power Funds | \$1,315,032 | \$1,320,112 |
| Total Program Costs—All Sources | \$1,315,032 | \$1,320,112 |
| Program Levelized Costs | | |
| Utility Levelized Cost (\$/kWh) | \$0.145 | \$0.149 |
| Total Resource Levelized Cost (\$/kWh) | \$0.235 | \$0.225 |
| Benefit/Cost Ratios | | |
| Utility Benefit/Cost Ratio | 0.54 | |
| Total Resource Benefit/Cost Ratio | 0.43 | |

Description

The WAQC program provides funding to install weatherization measures in qualified, owner-occupied and rental homes that are electrically heated. In 2015, qualified households included customers in Idaho Power's service areas in Idaho and Oregon with incomes up to 200 percent of the federal poverty-level guidelines. Energy efficiency enhancements allow qualified families to maintain a comfortable home environment while saving energy and money otherwise spent on heating, cooling, and lighting. Participants receive energy efficiency education to help save energy in their homes. Funding is also provided for the weatherization of buildings that house non-profit organizations who serve special-needs populations. In compliance with IPUC Order No. 29505, Idaho Power funds the CAP agencies to administer the WAQC program in its service area.

Initiated in 1989, WAQC is modeled after the DOE weatherization program. The DOE program is managed through the Idaho Department of Health and Welfare (IDHW) in Idaho and by the Oregon Housing and Community Services (OHCS) in Oregon. Federal funds are allocated to the IDHW and OHCS, then to CAP agencies based on US Census data of population and poverty levels within each CAP agency's geographic area. The CAP agencies serve as the administrators of the state Weatherization Assistance Program (WAP) and oversee local weatherization crews and contractors, providing services and measures that improve energy efficiency of the homes. The WAQC funding provided by Idaho Power allows these state agencies to leverage their federal weatherization dollars and serve more Idaho Power customers who heat their homes with electricity by supplementing federal LIHEAP weatherization funds.

Energy-saving home measures provided by this program include upgrades to windows, doors, wall insulation, ceiling insulation, floor insulation, infiltration, ducts, water heaters, and pipes; furnace tune ups, modification, and replacement; and the installation of CFL and LED bulbs. The Idaho WAP calculates savings with the EA5 energy audit program (EA5). Consistent with the Idaho WAP, WAQC offers several measures that have costs but do not save energy or for which savings cannot be

measured. Included in this category are health and safety, vents, furnace repair, 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 household's existing indoor air quality. Other non-energy-saving measures are allowed under this program to help facilitate the effective performance of those measures yielding energy savings.

Energy-saving measures provided to non-profit buildings under this program include upgrades to windows, doors, wall insulation, ceiling insulation, floor insulation, infiltration, ducts, water heaters, and pipes; furnace tune-ups, modification, and replacement; and the installation of CFL and LED bulbs. Non-profit building measures that have costs but do not save energy or for which savings cannot be measured are health and safety, vents, furnace repair, and energy audits.

For more details on the WAQC program, view the most recent regulatory report, *Weatherization Assistance for Qualified Customers 2014 Annual Report*, dated April 1, 2015, located in *Supplement 2: Evaluation*. The new *Weatherization Assistance for Qualified Customers 2015 Annual Report* will be filed on April 1, 2016.

2015 Program and Marketing Activities

During 2015, CAP agencies weatherized 225 electrically heated homes in Idaho and 10 in Oregon, totaling 235 weatherized homes. Eight Idaho buildings housing non-profit organizations that serve special-needs populations were also weatherized in 2015.

Idaho Power marketed WAQC throughout 2015 at resource fairs, community special-needs populations' service provider meetings, and CAP agency functions to reach customers who may benefit from the program. Marketing for this program was conducted in cooperation with weatherization managers and CAP agency personnel.

In the September energy efficiency issue of the *Connections* newsletter, sent to more than 415,000 customers with their bills, the program was mentioned in an article about weatherization. The program also was featured as the cover story of the December issue about weatherization professionals and how Idaho Power partners with CAP agencies. In that same issue, information and a link was provided to a recent YouTube video featuring a Weiser couple who had received assistance to weatherize their home through the program. In August, a news item about the program appeared in the weekly *News Briefs* sent to all media in the service area: *Help for Electrically Heated Homes*.

Cost-Effectiveness

The WAQC program has been proven to provide real and substantial per home savings and non-energy benefits. Due to the costs of comprehensive whole house weatherization, the program remains not cost-effective from either a UC or TRC perspective.

No changes were made to average per home average savings for 2015 savings. The RTF conducted billing analysis in 2015 on Idaho Power's manufactured home weatherization projects from 2011 to 2012, and their analysis validated Idaho Power's internal analysis completed in 2012. The RTF analysis led to increased collaboration of statistical software programming and data cleaning recommendations between RTF contract analyst staff and Idaho Power.

In late 2015, Idaho Power initiated an additional billing analysis of 2013 to 2014 weatherization projects. The purpose of the analysis is to determine the impact of increased heat pump replacement as

part of projects and to continue to increase understanding of the program impacts. Results will be available in 2016.

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

Customer Satisfaction and Evaluations

Idaho Power used two independent, third-party verification companies to randomly check approximately 10 percent of weatherization jobs submitted for payment by the program. These verifiers discussed the program with participating customers and confirmed installed measures in their homes. Home verifiers visited 28 homes for feedback about the program. When customers were asked how much they learned about saving electricity, 22, or over 78 percent, answered they learned “a lot” or “some.” When asked about how many ways they tried to save electricity, 25, or approximately 89 percent, responded “a lot” or “some.”

A customer survey was used to assess major indicators of customer satisfaction and program operations consistently throughout the service area. The 2015 Weatherization Programs Customer Survey was provided to all WAQC participants in all regions upon completion of weatherization in their homes. 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. Demographic information was gathered to determine future marketing strategies.

Idaho Power received survey results from 211 of the 235 households weatherized by the program in 2015. Some key highlights include the following:

- Almost 46 percent of respondents learned of the program from a friend or relative, and another almost 22 percent learned of the program from an agency flyer. Nearly 5 percent learned about the weatherization program by receiving a letter in the mail.
- Over 86 percent of the respondents reported their primary reason for participating in the weatherization program was to reduce utility bills, and over 44 percent wanted to improve the comfort of their home.
- Almost 82 percent reported they learned how air leaks affect energy usage, and just over 68 percent indicated they learned how insulation affects energy usage during the weatherization process. Over 54 percent of respondents said they learned how to use energy wisely.
- Over 83 percent reported they were very likely to change habits to save energy, and just over 82 percent reported they have shared all the information about energy use with members of their household.
- Over 93 percent of the respondents reported they think the weatherization they received will significantly affect the comfort of their home, and over 98 percent said they were very satisfied with the program.
- Over 85 percent of the respondents reported that the habit they were most likely to change was turning off lights when not in use, and nearly 65 percent said that washing full loads of

clothes was a habit they were likely to change to save energy. Turning the thermostat up in the summer was reported by over 51 percent and turning the thermostat down in the winter was reported by over 66 percent as a habit they and members of the household were most likely to change to save energy.

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

Idaho Power participates in the Idaho and Oregon state monitoring process, which involves representatives from the CAP agencies, CAPAI, and IDHW or OHCS reviewing homes weatherized by each of the CAP agencies. Results of the state monitoring review show all CAP-agency weatherization departments are weatherizing in accordance with federal guidelines.

Additionally, the DOE audits state agencies each year. The DOE audits include field work, paperwork, and billing audits, which show that the Idaho WAP and therefore, WAQC, is in compliance with DOE standards.

2016 Program and Marketing Strategies

WAQC will continue using DOE guidelines and leveraging each weatherization job with state WAP funding on each job. The budget and projected number of jobs for 2016 will remain the same as 2015.

Idaho Power will continue working in partnership with the IDHW, OHCS, CAPAI, and individual CAP agency personnel to maintain the targets and guidelines and improve the cost-effectiveness of the WAQC program.

Idaho Power will continue involvement with the State of Idaho's Policy Advisory Council that serves as an oversight group for weatherization activities in Idaho. Through this forum, Idaho Power participates in the weatherization policy for the State of Idaho.

The company plans to continue to selectively market WAQC throughout 2016. The program will be promoted at resource fairs, community special-needs populations' service provider meetings, and CAP agency functions to reach customers who may benefit from the program. Marketing for this program will be conducted in cooperation with weatherization managers.

Weatherization Solutions for Eligible Customers

| | 2015 | 2014 |
|--|-------------|-----------|
| Participation and Savings | | |
| Participants (homes) | 171 | 118 |
| Energy Savings (kWh) | 432,958 | 290,926 |
| Demand Reduction (MW) | n/a | n/a |
| Program Costs by Funding Source | | |
| Idaho Energy Efficiency Rider | \$1,204,147 | \$757,748 |
| Oregon Energy Efficiency Rider | \$0 | \$0 |
| Idaho Power Funds | \$39,122 | \$33,596 |
| Total Program Costs—All Sources | \$1,243,269 | \$791,344 |
| Program Levelized Costs | | |
| Utility Levelized Cost (\$/kWh) | \$0.175 | \$0.163 |
| Total Resource Levelized Cost (\$/kWh) | \$0.175 | \$0.163 |
| Benefit/Cost Ratios | | |
| Utility Benefit/Cost Ratio | 0.45 | |
| Total Resource Benefit/Cost Ratio | 0.50 | |

Description

Weatherization Solutions for Eligible Customers is an energy efficiency program designed to serve Idaho Power residential customers who are below poverty level, at poverty level, or slightly above poverty level in Idaho. Initiated in 2008, the program is designed to mirror WAQC. Potential participants are interviewed by the contractor to determine household eligibility as well as ensure the home is electrically heated. If eligible, an auditor inspects the home to determine what energy-saving upgrades will save energy, improve indoor air quality, and increase comfort for the residents. The installation of energy efficiency measures and repairs are allowed as long as the improvements have a savings-to-investment ratio (SIR) of 1.0 or higher. The amount spent on each home is limited to an annual average of Idaho Power's portion of the cost per home. Homes considered for this program are electrically heated and either owned or rented. If rented, the landlord's permission is needed to perform the upgrades, along with an agreement to maintain the unit's current rent for a minimum of one year and help fund a portion of the cost of weatherization.

Idaho customers eligible for this program have earned incomes between 175 percent and 250 percent of the federal poverty level. These customers typically do not have disposable income to participate in other residential energy efficiency programs, and they typically live in similar housing as WAQC customers.

2015 Program and Marketing Activities

In 2015, Idaho Power hired a new contractor located in the company's Eastern region to provide weatherization services starting in 2016 to customers residing in Lemhi County, Idaho. Contractors used the new Home Audit HAT 14.1 tool throughout 2015 to estimate energy savings.

Marketing was increased in 2015 to reach more customers living in electrically heated and income-eligible households to increase participation in the program. Inserts were included in residential

bills in February, July, and October. The program was promoted throughout the year at seasonal, resource, and conservation fairs, as well as other events targeting people with limited incomes and seniors. Advertisements and articles promoted the program in the *Seniors BlueBook*, *Healthy Idaho Magazine*, *Idaho Senior News*, and the *Idaho State Journal* boomers edition. Idaho Power's community relations representatives and CRs promoted the program at meetings in their communities, with specific emphasis on smaller Idaho communities. The program specialist and CRs promoted the program to home health provider groups, religious groups, and members of the Idaho Nonprofit Center. Customer testimonials were posted on social media and the Idaho Power website for this program was updated to provide clarity and show success via a YouTube video of a customer testimonial.

The program was mentioned in articles appearing in May, September, and December issues of the *Connections* newsletter sent to more than 415,000 customers with their bills. Targeting the Pocatello area, the focus of the May live in-studio energy-efficiency segment on the KPVI morning news promoted the Weatherization Solutions for Eligible Customers program. In August, a news item about the program appeared in the weekly *News Briefs* sent to all media in the service area: *Help for Electrically Heated Homes*.

In 2015 landlords who participated in the program were required to fund at least 10 percent of the projects, the company held the average cost per home constant for the weatherization contractors, and regularly met with the contractors to discuss program operations and improvements.

Cost-Effectiveness

While not cost-effective, the savings per home are measurable and significant per home. No changes in per-home savings assumptions were made for 2015 results. Projects completed in 2013 through 2014 were included in the updated billing analysis completed in the latter part of 2015. For more details on the analysis, see the Cost-Effectiveness section for Weatherization Assistance for Qualified Customers. For further details on the overall program cost-effectiveness assumptions, see *Supplement 1: Cost-Effectiveness*.

Customer Satisfaction and Evaluations

Two independent companies performed random verifications of weatherized homes and visited with customers about the program. In 2015, 31 homes were verified, and 27, or 87 percent, of those customers reported they learned "a lot" or "some" about saving electricity in their home. Thirty-one, or 100 percent, reported they had tried "a lot" or "some" ways to save energy in their home.

The 2015 Weatherization Programs Customer Survey was provided to all program participants on completion of weatherization in their homes. 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. Demographic information was gathered to determine future marketing strategies.

Idaho Power received survey results from 133 of the 171 households weatherized by the program in 2015. Some key highlights include the following:

- Almost 25 percent of respondents learned of the program through a letter in the mail and another almost 32 percent learned of the program from a friend or relative.

- Over 83 percent of the respondents reported their primary reason for participating in the weatherization program was to reduce utility bills.
- Almost 74 percent indicated they learned how insulation affects energy usage during the weatherization process, and over 80 percent reported they learned how air leaks affect energy usage. Another almost 54 percent of respondents said they learned how to use energy wisely.
- Over 80 percent reported they were very likely to change habits to save energy, and almost 82 percent reported they have shared all of the information about energy use with members of their household.
- Almost 93 percent of the respondents reported they think the weatherization they received will significantly affect the comfort of their home, and nearly 95 percent said they were very satisfied with the program.

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

2016 Program and Marketing Strategies

Idaho Power will introduce the Weatherization Solutions for Eligible Customers program in Lemhi County in 2016. New brochures will help spread the word about the program in all communities. Additional marketing for the program will include bill inserts and advertisements in *Healthy Idaho Magazine*, *Seniors BlueBook*, *Idaho Senior News*, and *Idaho State Journal* boomers edition. Idaho Power will send a direct-mail letter to certain residential customers mid-year and use social media.

In 2016, the company will explore with weatherization contractors potential new energy-savings measures to add to the program.

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COMMERCIAL/INDUSTRIAL SECTOR OVERVIEW

Description

Idaho Power's commercial sector consists of over 68,352 customers. In 2015, the commercial sector's number of customers increased by 830, an increase of a little over 1 percent from 2014. The energy usage of commercial customers varies from a few kWh each month to several hundred thousand kWh per month. The commercial sector represents 28 percent of Idaho Power's actual total electricity usage and 25 percent of overall revenue in 2015.

The industrial and special contracts customers are Idaho Power's largest individual energy consumers. There are 115 industrial customers. These customers can account for approximately 21 percent of Idaho Power's total electricity usage and 16 percent of overall revenue in 2015.

Three major programs targeting different energy efficiency projects are available to commercial/industrial customers in the company's Idaho and Oregon service areas. The Building Efficiency program is available for new construction projects and large remodels. These projects typically capture lost opportunity savings and encourage business owners to incorporate energy efficiency measures that are more efficient than current commercial building codes require. This program continues to be successful, incorporating qualified energy-saving improvements for lighting, cooling, building shells, management-control options, appliances, and refrigeration. The Custom Efficiency program offers financial incentives for commercial and industrial energy users undertaking more complex projects to improve the efficiency of their electrical systems or processes. Incentive levels are 70 percent of the project cost or 18 cents per kWh for first-year savings, whichever is less.

Easy Upgrades offers a menu of typical retrofit measures with prescriptive incentive amounts for lighting, HVAC, building shells, variable-speed/frequency drives (VFD), food-service equipment, and other commercial measures. These energy-saving measures allow customers the option of incorporating energy efficiency into their business at a lower initial cost.

In May 2015, the FlexPeak Management demand response program was brought under Idaho Power's administration and renamed Flex Peak Program. The Flex Peak Program calls at least three events annually between June 15 and August 15. Idaho Power notifies commercial and industrial customers two hours in advance of each event and each participating customer's load reduction is measured for each event. Incentives are calculated and sent to customers at the end of the program season. The events typically occur during peak-use hours when demand on Idaho Power's system is the greatest. Each event lasts between two and four hours, no more than 15 hours per week or 60 hours per summer season.

Idaho Power also offers the statutory-required Oregon Commercial Audits program to medium and small commercial customers. The program identifies opportunities for commercial building owners to achieve energy savings.

The Custom Efficiency program continued to represent the highest total energy savings among commercial and industrial programs in 2015, with a total savings of 55,247 MWh. The Easy Upgrades program continued to lead the sector in projects completed with 1,222 projects. Combined, all programs completed 1,463 projects that achieved 102,074 MWh of energy savings. Table 10 shows a summary of savings and expenses from the three commercial and industrial energy efficiency programs that produce direct savings and one demand response program.

Programs

Table 10. 2015 commercial/industrial programs

| Program | Participants | Total Cost | | Savings | | |
|--------------------------|----------------|----------------------|----------------------|--------------------|-------------|-----------|
| | | Utility | Resource | Energy (kWh) | Demand (MW) | |
| Demand Response | | | | | | |
| Flex Peak Program | 72 sites | \$ 592,872 | \$ 592,872 | n/a | 26 | |
| Total | | \$ 592,872 | \$ 592,872 | | | 26 |
| Energy Efficiency | | | | | | |
| Building Efficiency..... | 81 projects | \$ 2,162,001 | \$ 6,293,071 | 23,232,017 | | |
| Custom Efficiency..... | 160 projects | 9,012,628 | 20,533,742 | 55,247,192 | | |
| Easy Upgrades | 1,222 projects | 4,350,865 | 7,604,200 | 23,594,701 | | |
| Total | | \$ 15,525,494 | \$ 34,431,013 | 102,073,910 | | |

Note: See Appendix 3 for notes on methodology and column definitions.

Idaho Power's commercial and industrial energy efficiency programs had an excellent year in 2015. Total savings were up 29 percent over 2014. The programs continued to develop and strengthen Idaho Power's strategic partnerships. These partnerships include the IDL, engineering and architectural firms, a vast network of trade allies, the Northern Rockies Chapter of International Facilities Managers Association, the International Building Contractors Association (IBOA), and most importantly, Idaho Power customers. Training and education continued to be an important aspect of the company's programs in 2015. Idaho Power continues to provide many different ways for customers to learn about and engage in energy efficiency. Through multiple channels—customer workshops, customer meetings, trainings, audits, cohorts, trade allies, architectural firms, and engineering firms—the company creates face-to-face interactions that allow the company to continue to enhance its overall program performance.

The Green Rewind offering is available to Idaho Power's agricultural, commercial, and industrial customers. The sectors' combined 51 Green Rewind motors achieved a total annual savings of 151,124 kWh in 2015, with 19 commercial/industrial sector motors contributing 61,050 kWh per year and 32 irrigation sector motors contributing 90,074 kWh per year.

Twenty-one service centers in Idaho Power's service area have the necessary equipment and training to participate in the Green Rewind offering. An estimated 1,200 motor rewinds are occurring annually within these service centers. Currently, seven service centers have signed on as Green Motors Practice Group (GMPG) members in Idaho Power's service area. The GMPG will also expand the number of service centers participating in the GMPG's Green Motors Initiative, leading to market transformation and additional southern Idaho and eastern Oregon kWh savings.

Motor service centers are paid \$2 per horsepower (hp) by the GMPG for each National Electrical Manufacturers Association (NEMA) Standard hp-rated motor up to 5,000 hp for industrial and agricultural uses that receive a verified Green Rewind. Customers are paid \$1 per hp from the service center that completed their rewind. The GMPG requires all service centers to sign and adhere to the GMPG Annual Member Commitment Quality Assurance agreement. The GMPG follows up with a quality check and QA.

Customer satisfaction research by sector includes the Idaho Power quarterly customer relationship surveys that ask questions about customer perceptions related to Idaho Power's energy efficiency programs. Sixty-five percent of Idaho Power's large commercial and industrial customers surveyed in

2015 for the Burke Customer Relationship survey indicated Idaho Power was meeting or exceeding their needs in offering energy efficiency programs. Forty-five percent of survey respondents indicated Idaho Power was meeting or exceeding their needs with information on how to use energy wisely and efficiently. Sixty-nine percent of respondents indicated Idaho Power was meeting or exceeding their needs by encouraging energy efficiency with its customers. Overall, 81 percent of the large commercial and industrial survey 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, 95 percent are “very” or “somewhat” satisfied with the program.

The results from surveying Idaho Power’s small business customers indicated 47 percent of these customers said Idaho Power was meeting or exceeding their needs in offering energy efficiency programs. Fifty-six percent of survey respondents indicated Idaho Power was meeting or exceeding their needs with information on how to use energy wisely and efficiently. Fifty-nine percent of respondents indicated Idaho Power was meeting or exceeding their needs with encouraging energy efficiency with its customers. Overall, 29 percent of the small business survey respondents indicated they have participated in at least one Idaho Power energy efficiency program. Of small business survey respondents who have participated in at least one Idaho Power energy efficiency program, 90 percent are “very” or “somewhat” satisfied with the program.

Sixty-two percent of the Idaho Power business customers included in the *2015 J. D. Power and Associates Electric Utility Business Customer Satisfaction Study* indicated they are familiar with Idaho Power’s energy efficiency programs.

Building Efficiency

| | 2015 | 2014 |
|--|-------------|-------------|
| Participation and Savings | | |
| Participants (projects) | 81 | 69 |
| Energy Savings (kWh) | 23,232,021 | 9,458,059 |
| Demand Reduction (MW) | n/a | 1.2 |
| Program Costs by Funding Source | | |
| Idaho Energy Efficiency Rider | \$2,128,309 | \$1,212,907 |
| Oregon Energy Efficiency Rider | \$16,075 | \$31,052 |
| Idaho Power Funds | \$17,617 | \$14,315 |
| Total Program Costs—All Sources | \$2,162,001 | \$1,258,273 |
| Program Levelized Costs | | |
| Utility Levelized Cost (\$/kWh) | \$0.008 | \$0.012 |
| Total Resource Levelized Cost (\$/kWh) | \$0.024 | \$0.037 |
| Benefit/Cost Ratios | | |
| Utility Benefit/Cost Ratio | 7.63 | |
| Total Resource Benefit/Cost Ratio | 3.70 | |

Description

The Building Efficiency program enables customers in Idaho Power's Idaho and Oregon service areas to apply energy efficient design features and technologies in new commercial or industrial construction, expansion, or major remodeling projects. Originated in 2004, the program currently offers a menu of measures and incentives for lighting, cooling, building shell, controls, appliances, and refrigeration-efficiency options. These measures may otherwise be lost opportunities for savings on customers' projects. Commercial and industrial customers taking service under, or who will take service under, Schedule 7 (Small General Service), Schedule 9 (Large General Service), Schedule 19 (Large Power Service), or special contracts customers are eligible to participate. Program marketing is targeted toward architects, engineers, and other design professionals.

Twenty prescriptive measures are offered through this program. The measures are interior-light load reduction, exterior-light load reduction, daylight photo controls, occupancy sensors, high-efficiency exit signs, efficient A/C and heat pump units, efficient variable refrigerant flow units, efficient chillers, air-side economizers, direct evaporative coolers, reflective roof treatment, energy-management control systems, guest room energy management systems, HVAC VFDs, efficient laundry machines, ENERGY STAR[®] under-counter dishwashers, ENERGY STAR commercial dishwashers, refrigeration head pressure controls, refrigeration floating suction controls, and efficient condensers.

The IDL has been a useful resource for the Building Efficiency program. Idaho Power is a primary sponsor of the IDL, which provides technical assistance and training seminars focused on energy efficiency to local architects, engineers, and designers through Lunch & Learn sessions and the Idaho Building Simulations Users Group (BSUG). Sessions are outlined in the IDL section of *Supplement 2: Evaluation*.

2015 Program and Marketing Activities

The Building Efficiency program completed 81 projects, resulting in 23,232,021 kWh in annual energy savings in Idaho and Oregon. The program increased by 145 percent from 9,458,059 kWh in 2014, a significant addition in total kWh savings from last year. The total number of projects increased by 17 percent from 69 projects in 2014 to 81 projects in 2015. Four large projects accounted for 79 percent of the total annual energy savings in 2015.

Maintaining a consistent program is important for large projects with long construction life, though changes are made to enhance customers' options or to meet new code changes. Idaho Power ideally tries to keep the program consistent by making changes less frequently, approximately every other year. The last modification to the program was mid 2014. Implemented modifications remained the same for 2015. New construction and major renovation project design and construction life is much longer than small retrofits and often encompasses multiple calendar years.

In 2014, the Building Efficiency program added a Professional Assistance Incentive equal to 10 percent of the participant's total incentive, up to a maximum amount of \$2,500, to improve participants' satisfaction with the incentive process. Nine projects received the Professional Assistance Incentive in 2015.

Idaho Power contracted with ADM to update the TRM to address code changes that occurred January 1, 2015 in Idaho. The changes are currently being evaluated for implementation into the program in 2016.

In 2015, Idaho Power contracted with Greensteps to target the commercial real estate industry. The contract continued support of the Kilowatt Crackdown™ participants, whose buildings competed in the Kilowatt Crackdown competition, which included benchmarking their building in ENERGY STAR Portfolio Manager and implementing low-cost and no-cost efficiency measures. Idaho Power also expanded engagement with participants through Strategic Energy Management (SEM). The Greensteps contract continues into 2016. Idaho Power will provide a summary of the SEM report in the *Demand-Side Management 2016 Annual Report*.

The company marketed Building Efficiency as a single program and as part of Idaho Power's suite of commercial energy efficiency programs. Ads that included all of Idaho Power's commercial programs appeared in association directories, such as the American Institute of Architects (AIA) Directory and the Building Owners and Managers Association (BOMA) Symposium event program. Other advertising publications included *Horizon Air* magazine, the *Business Insider*, the *Idaho Business Review*, *Southeast Idaho Business Journal*, and bill inserts. In 2015, Idaho Power also used the Boise airport terminal display advertising space.

Technical training and assistance continue to be important in educating design professionals in energy efficiency design for new construction and major renovations. Influencing a project early in the design phase will have the most impact and least amount of lost opportunity. Twenty technical training lunches were completed in 2015, with 321 attendees, including architects, engineers, interior designers, and project managers. Technical training sessions were held in Boise, Pocatello, Idaho Falls, and Ketchum. The Building Efficiency program, in conjunction with the Custom Efficiency program, sponsored the Idaho BSUG through the IDL. Topics and sessions are outlined in the IDL section of *Supplement 2: Evaluation*.

Idaho Power CRs visited 17 architectural and engineering firms in Boise and Meridian and 10 in Pocatello in 2015. CRs visited with 212 professionals total to build relationships with the local design community and discuss Idaho Power's commercial energy efficiency programs.

The Building Efficiency program partnered with BOMA Idaho (BOMA Boise in prior years) and NEEA to provide a four-hour commercial real estate educational training session. The Making the Business Case for Energy Efficient Properties session was held in Boise. There were 42 attendees, including architects, engineers, interior designers, property managers, and real estate professionals. AIA and real estate continuing education credits were offered to attendees.

The Building Efficiency program supports a number of associations and events, including placing ads in the AIA directory, and sponsoring the Grow Smart awards, BOMA symposium, American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE) Technical Conference, and Idaho Energy and Green Building Conference. Idaho Power and NEEA were major sponsors of the Idaho Energy and Green Building Conference held in Boise, Idaho and had two active members on the planning committee. The two-day conference was held November 4 and 5 at The Riverside Hotel, provided four training tracks on energy efficiency and green building, and attracted over 100 participants. The conference targeted policy makers, developers, architects, code officials, engineers, energy professionals, and industrial plant managers and operators. Conference sessions covered a wide variety of topics, including the adoption of green strategies in commercial and residential construction, renovation and building operation, retrofitting green, energy code inspections, the value of energy codes, the benefits of net zero energy and certified green homes, and energy hot topics in Idaho and the Northwest. The residential, commercial, industrial, and code tracks together offered 36.25 hours of continuing education credits by AIA, International Code Council (ICC), and Leadership in Energy and Environmental Design (LEED).

Cost-Effectiveness

To calculate energy savings for the Building Efficiency program, 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. Since Building Efficiency is a prescriptive program and the measures are being installed in new buildings, there are no baselines of previous measureable kWh usage in the building. Therefore, industry standard assumptions from the IECC are used to calculate the savings achieved over how the building would have used energy absent of efficiency measures.

Building Efficiency 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 kilowatt reduction.

In 2015, Idaho Power used the same savings and assumptions as were used in 2014. To prepare for 2016 program changes, ADM, under contract with Idaho Power, updated the TRM for Building Efficiency. The TRM which provides savings and costs related to existing and new measures for the Building Efficiency program. The TRM was updated to include the IECC 2012 baseline. These new savings will be applied in 2016 when other program changes are implemented. Complete measure level details for cost-effectiveness can be found in *Supplement 1: Cost-Effectiveness*.

Customer Satisfaction and Evaluations

Building Efficiency continued random installation verification on 10 percent of projects in 2015. The purpose of the verifications is to confirm program guidelines and requirements are adequate and ensure participants are able to provide accurate and precise information with regard to energy efficiency measure installations. The IDL completed on-site field verifications on 9 of the 81 projects, which encompass approximately 11 percent of the total completed projects in the program. Out of the nine projects verified, three projects had no discrepancies when compared to how they were declared on the final application. The six projects with minor discrepancies resulted in a total increase of energy-efficient measures for three projects and a total decrease of energy-efficient measures for the other three projects. The minor discrepancies consist of the addition or subtraction of a lighting fixture compared to what was claimed on the application. Random project installation verification will continue in 2016.

2016 Program and Marketing Strategies

The following strategies are planned for 2016:

- Continue to perform random post-project verifications on a minimum of 10 percent of completed projects.
- Continue to sponsor technical training through the IDL to address the energy efficiency education needs of design professionals throughout the Idaho Power service area.
- Continue to support Kilowatt Crackdown participants through continued coaching and technical support to further energy efficiency projects.
- Support organizations focused on promoting energy efficiency in commercial construction.
- Place print ads in the Idaho Business Review when the editorial content is dedicated to commercial property developers and engineers/architects.
- Actively support the 2016 Idaho Energy and Green Building Conference as a member of the conference planning committee. Participate in planning the conference agenda and energy efficiency sessions.
- Continue to sponsor the BOMA symposium and offer energy efficiency training and support to the real estate market.
- Continue Customer Representative relationship building with local design professionals by targeting Idaho Power's Twin Falls and Canyon regions.
- Create consistent messaging and graphics for all the programs to help customers identify and remember the core concept that Idaho Power has energy-saving programs for businesses.

Custom Efficiency

| | 2015 | 2014 |
|--|-------------|-------------|
| Participation and Savings | | |
| Participants (projects) | 160 | 131 |
| Energy Savings (kWh)* | 55,247,192 | 50,363,052 |
| Demand Reduction (MW) | n/a | 5.6 |
| Program Costs by Funding Source | | |
| Idaho Energy Efficiency Rider | \$8,345,435 | \$6,705,219 |
| Oregon Energy Efficiency Rider | \$604,636 | \$418,537 |
| Idaho Power Funds | \$62,558 | \$49,299 |
| Total Program Costs—All Sources | \$9,012,628 | \$7,173,054 |
| Program Levelized Costs | | |
| Utility Levelized Cost (\$/kWh) | \$0.016 | \$0.013 |
| Total Resource Levelized Cost (\$/kWh) | \$0.035 | \$0.024 |
| Benefit/Cost Ratios | | |
| Utility Benefit/Cost Ratio | 4.03 | |
| Total Resource Benefit/Cost Ratio | 1.77 | |

*Includes 61,050 kWh from Green Motor Projects

Description

The Custom Efficiency program targets energy savings by implementing customized energy efficiency projects at customers' sites. Initiated in 2003, the program is an opportunity for commercial and industrial customers in Idaho and Oregon to lower their electrical usage and receive a financial incentive by completing energy efficiency projects. Incentives reduce customers' payback periods for projects that might not be completed otherwise. Program offerings include training and education regarding energy efficiency, energy auditing services for project identification and evaluation, and financial incentives for project implementation.

Interested customers submit pre-applications to Idaho Power for potential projects that have been identified by the customer, Idaho Power, or by a third-party consultant. Idaho Power engineers work with customers and vendors to gather sufficient information to support the energy-savings calculations.

Project implementation begins after Idaho Power reviews and approves a pre-approval application finalizing the terms and conditions of the applicant's and Idaho Power's obligations. A payment application is later submitted when the project is installed and operating. In some cases, large, complex projects may take as long as two years to complete. Every project is verified post-completion by Idaho Power staff or an Idaho Power contractor. Incentive levels for the Custom Efficiency program remained the same at 18 cents per kWh of first year savings with a 70-percent project cost cap on the incentive.

2015 Program and Marketing Activities

Custom Efficiency had another very successful year in 2015. A total of 160 projects, including eight Oregon projects, were completed by 89 customers. Program energy savings increased in 2015 by 10 percent over 2014, from 50,306 MWh to 55,186 MWh.

In 2015, 171 new applications were submitted, totaling 33,677 MWh. There were 129 submitted projects in the pipeline for Custom Efficiency at the end of 2015, representing over 56,183 MWh of potential future savings.

The Custom Efficiency program may reach some level of saturation through program maturity, over 95 percent of the large-power service customers have participated in the program. With the high percentage of industrial customers that have completed projects in the program, deeper energy savings may be challenging to achieve. The company is addressing this ongoing challenge in several ways by continuing to use multiple channels to reach customers and encourage projects. The company has expanded the cohort-type offerings, Streamlined Custom Efficiency (SCE), and expanded ability to conduct energy audit through an expanded list of engineering firms.

Table 11 indicates the program's 2015 annual energy savings by primary project measures.

Table 11. 2015 Custom Efficiency annual energy savings by primary project measure

| Program Summary by Measure | Number of Projects | kWh Saved |
|----------------------------|--------------------|------------|
| Lighting..... | 67 | 8,650,704 |
| Refrigeration..... | 22 | 15,595,018 |
| HVAC | 8 | 3,041,115 |
| Compressed air..... | 13 | 8,679,279 |
| Fan..... | 1 | 1,010,861 |
| Controls..... | 2 | 466,245 |
| Pump..... | 1 | 17,850 |
| VFD..... | 45 | 16,981,476 |
| Other | 1 | 743,594 |
| Total ^a | 160 | 55,186,142 |

^a Does not include Green Rewind project counts and savings.

Key components in facilitating customer implementation of energy efficiency projects are facility energy auditing, customer technical training, and education services. The Refrigeration Operator Coaching for Energy Efficiency (ROCEE) and Wastewater Energy Efficiency Cohort (WWECC) program offerings are also driving a significant number of new projects in addition to increased vendor engagement from the SCE offering. The 2015 activities in the key components are described below.

Facility Energy Auditing

Idaho Power covers the cost of conducting energy scoping audits to encourage its larger customers to adopt energy efficiency improvements. In 2015, a Request for Proposal (RFP) to provide Commercial and Industrial Energy Efficiency Program Services was posted to solicit proposals from energy professionals to provide scoping audits and other general support for the Custom Efficiency program. This RFP resulted in 28 submissions from professionals all over the nation. A selection team of four Idaho Power energy efficiency personnel gathered to evaluate and select top candidates. The team selected 11 different firms. Scopes of work will be in place to allow support from these firms in 2016.

In 2015, Idaho Power consultants completed seven scoping audits and eight detailed audits on behalf of Idaho Power customers. These audits identified over 37,000 MWh per year of savings potential. Most of the customers engaged in these audits used the information to move forward with projects or expressed interest in moving forward in the near future.

Customer Technical Training and Education Services

Technical training and education continue to be important in helping Idaho Power industrial customers identify where they may have energy efficiency opportunities within their facilities. Idaho Power delivered eight technical classroom-based training sessions in 2015. Of the eight sessions, one was a three-day Better Plants training class hosted by J.R. Simplot Company, two were two-day classes, one was a half-day class, and the four others were one-day classes. Topics included compressed air, industrial refrigeration, pump systems, motors, variable speed drives, commercial refrigeration, and drinking water optimization. A schedule of training events is posted on Idaho Power's website.

The level of attendance in 2015 remained high, with 155 Idaho Power-sponsored seats for customers and consultants with additional various Idaho Power staff attending. Customer feedback indicated average satisfaction levels of 93 percent.

Idaho Power's average cost to deliver trainings in 2015 was approximately \$6,500 per class. For NEEA's 2015 to 2019 funding period, Idaho Power chose not to participate in NEEA's industrial trainings. From 2010 to 2014, NEEA offered an average of nine trainings per year at an approximate cost of \$22,000 per class. Providing these trainings directly to Idaho Power customers, the company realized approximately a 70 percent cost reduction for its customers.

Idaho Power posted prior years' webinar recordings and PDFs on the commercial and industrial training page on the Idaho Power website. Also, on Idaho Power's industrial training page is a listing of all IBOA and International Facility Management Association (IFMA) events. Idaho Power restructured support for both of these organizations in 2015 to cover at least 50 percent of cost for Idaho Power customers to take part in their educational classes.

In 2015, the Idaho Power Custom Efficiency team attended refrigeration training at Winco distribution center during the November Treasure Valley Refrigerating Engineers and Technicians Association (RETA) chapter meeting.

Custom Efficiency program engineers and the major customer reps (MCR) set up numerous visits with the large commercial and industrial customers in 2015. The visits ranged from commercial/industrial efficiency program training to a comprehensive targeted technical training session for a larger audience on potential energy-savings opportunities for different measure types, such as refrigeration, pumps and fans, compressed air, HVAC, lighting, etc. At least nine of the comprehensive targeted technical training sessions were held across the region. Idaho Power is developing a *Targeted Technical Training* flyer for the MCRs to market the training. Because of WVEEC, Custom Efficiency program engineers also set up multiple program marketing meetings with DEQ, EPA, and the area civil engineering firms specializing in water and wastewater designs to educate them on the efficiency programs, audit process, energy efficiency opportunities, and tools and resources available to them. Presentations on Idaho Power programs and offerings were given in Boise at the Idaho Water Reuse Conference, the Pacific Northwest Clean Water Association, and the Idaho Green Building and Energy Conference. Idaho Power also presented at the American Council for an Energy Efficient Economy in Buffalo, New York.

Under the IDL, Idaho Power supported and participated in the BSUG. The goal was to facilitate the Idaho BSUG, which has been designed to improve the energy efficiency-related simulation skills of local design and engineering professionals. Details regarding BSUG topics and additional details are located in the Other Programs and Activities section of the report and in *Supplement 2: Evaluation*.

The IDL also provided a Tool Loan Library (TLL). The goal was to operate and maintain a measurement equipment TLL, including a web-based equipment tool loan tracking system, and provide

technical training on how each tool is intended to be used. Details regarding the types and number of loans, types of tools, and additional IDL activities are located in the Other Programs and Activities section of the report and in *Supplement 2: Evaluation*.

As stated in the sector overview, Green Rewind is available to Idaho Power's Custom Efficiency customers. This measure maintains the motor's original efficiency by ensuring certain standards and methods in the motor rewind process. There were 19 Green Rewind motors in the commercial/industrial sector in 2015, contributing 61,050 kWh in annual savings.

In 2015, Custom Efficiency continued two offerings launched in 2013 to increase the total program savings in years to come—ROCEE and SCE.

The ROCEE offering was rolled out early in 2013 to Idaho Power's larger customers with complex refrigeration systems in the western half of Idaho Power's service area. This was a two-year engagement with the eight participating customers that ended in 2015. ROCEE provided a series of technical training workshops with a cohort cluster training approach. Workshops included visits to participants' refrigeration engine rooms to gain hands-on experience viewing and discussing energy efficiency concepts. The goal of the training was to equip refrigeration operators with the skills necessary to identify and implement energy efficiency opportunities on their own and to ensure these energy and cost savings are maintained long term. Sessions included technical training, hands-on learning exercises to demonstrate simple low- and no-cost actions to diagnose problems and save energy, and peer-to-peer sharing of lessons learned as the classes progressed. ROCEE provided energy audits of the participants' facilities in conjunction with a qualified refrigeration system expert. Customers were able to immediately implement low-cost and no-cost energy efficiency improvements by actions as simple as processing set-point changes. Participants had technician and engineering support between each workshop, facilitated by an expert team of energy engineers. Energy savings were tracked via an energy model that was constructed for each participating facility using third-party energy management software that Idaho Power provided as part of the cohort. In some cases, bottom-up calculations or sub-system data logging captured the savings. Year two of the offering consisted of phone call check-ins with the participants and model data updates. The incentives and the energy savings for year two of the offering totaled \$32,326.57 and 4,424,149 kWh, respectively. In all cases, the incentive was capped on 70 percent of the eligible costs. Year two incentives and savings were processed in 2015. Additionally, some ROCEE participants completed capital projects that were encouraged and discussed in the workshops and energy audits. These capital projects' savings are captured separately and not included in the above number.

The second program offering rolled out in 2013 was SCE. This offering targets projects that may have typically been too small to participate in the Custom Efficiency program due to the resources required to adequately determine measure savings. Idaho Power contracted SCE out to a company to manage the data collection and analysis for each project. SCE provides custom incentives for small compressed air system improvements, fast-acting doors in cold-storage spaces, refrigeration controllers for walk-in coolers, and process-related VFDs. In 2015, the SCE offering processed 51 projects, totaling 9,275,485 kWh per year of savings and \$1,518,994 in incentives paid. This represents a 97 percent increase over the 2014 SCE-related energy savings.

In January 2014, Custom Efficiency launched WWEEC, its third program offering since 2013, to increase the total program savings. Idaho Power received a draft report for year one in late 2015. Year one incentives and savings will be processed in early 2016. Similar to ROCEE, WWEEC is a cohort training approach to low-cost or no-cost energy improvements. WWEEC is a two-year engagement with 11 Idaho Power service area municipalities. WWEEC provided a series of five

technical training workshops with a cohort training approach. In addition, WWEEC provided energy audits in conjunction with a qualified wastewater system expert and an energy management assessment conducted by a strategic energy management professional for each participating facility. Customers were able to immediately implement low-cost and no-cost energy efficiency improvements by actions as simple as turning off equipment or adjusting control points for systems. They also implemented many energy management principles, including forming an energy team, setting energy goals, and establishing energy policies in their organization for persistence of savings. Energy savings were tracked via Idaho Power provided third party software and an individual energy model for each facility. WWEEC contributed several capital projects to Idaho Power incentive programs from some of the WWEEC participants. Additionally, multiple pre-planning meetings were held with consultants and municipalities for upcoming new wastewater construction projects.

In September 2015, Idaho Power held a recruiting/training session for municipal water supply operators and public works personnel garnering interest in a third Strategic Energy Management cohort—the WSOC, similar to ROCEE and WWEEC. Representatives from 15 municipalities and 1 private water company attended. The session introduced the upcoming cohort whose goal is to equip water professionals with hands-on training to help operators get the most out of their systems while improving energy efficiency. Idaho Power and the company’s consultants gave an overview of how low-cost or no-cost savings can be uncovered in a water supply system. A graduate of a similar Utah cohort presented their system findings. By 2015 year-end, 11 municipalities and the private water company in the September training signed up for the cohort. Enrollment will continue into January 2016.

2015 was the fourth year the Idaho Power CR&EE department filled a summer internship position with a university mechanical engineering student. A Custom Efficiency engineer served as the intern mentor. The intern was involved with many aspects of the day to-day program operation, including, but not limited to: measurement and verification of energy efficiency aspects related to Custom Efficiency program lighting projects; attendance at customer meetings related to energy efficiency; familiarization with, and communication for, all three commercial incentive programs; calculation and review of energy-saving projects; exposure to program marketing and planning activities; and administrative work related to the Custom Efficiency program.

Over the years, the Custom Efficiency program has achieved a high service-area penetration rate. As stated previously, over 95 percent of the large-power service customers have submitted applications for a project. Idaho Power staff met with all of the special contracts customers in 2015 to continue discussions on energy efficiency programs and opportunities. Company staff is actively working to support these customers in new ways and find additional opportunities for cost-effective energy saving projects.

Idaho Power’s Custom Efficiency program is unique from the company’s other energy efficiency programs by providing individualized energy efficiency solutions to a somewhat limited number of customers. Idaho Power’s MCRs often act as the company’s sales force. Marketing supports the MCRs by providing collateral to help them inform customers of the measures and benefits available to them.

Idaho Power provides additional marketing and public relations (PR) to commercial/industrial customers who want to publicize the work they have done to become more energy efficient. Upon request, Idaho Power creates large-format checks that are used for media events and/or board meetings. Idaho Power also works with customers on coordinating media events.

In addition to check presentations and the media associated with those events, in 2015 Idaho Power produced and posted a YouTube video in February about a Customer Efficiency project completed in

Sun Valley: *New Snow-Making Guns Bring Energy Efficiency to Sun Valley Company*. In February, Idaho Power posted another video, *Cascade Schools Benefit from Energy Efficient Heating System*. Both were publicized to media in Idaho Power's service area in the weekly *News Briefs* email.

In 2015, Idaho Power designed a new Excellence in Energy Efficiency award to recognize customers whose exemplary efforts in energy efficiency through recent and past projects have earned substantial energy savings and provided significant benefit to their businesses and communities. One large industrial customer was provided the award in 2015, and at least two additional customers are being considered to receive the award in 2016.

Custom Efficiency has been marketed as a single program and also as part of Idaho Power's suite of commercial/industrial energy efficiency programs. Ads that included all Idaho Power commercial programs appeared in *Horizon Air* magazine, the *Business Insider*, the *Idaho Business Review*, *Southeast Idaho Business Journal*, and bill inserts. In 2015, the program also used the Boise airport terminal display advertising space.

Cost-Effectiveness

All projects submitted through the Custom Efficiency program must meet cost-effectiveness requirements, which include TRC, UC, and PCT tests from a project perspective. 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 the 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 via a scoping audit, detailed audit, or engineering measurement and verification services available under the Custom Efficiency program. Details for cost-effectiveness are in *Supplement 1: Cost-Effectiveness*.

Customer Satisfaction and Evaluations

Each project in the Custom Efficiency program 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 the verification process, 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 process helps ensure the achievement of projected energy savings. Verifying applicants' information confirms demand reduction and energy savings are obtained and are within program guidelines. If changes in scope take place in a project, a recalculation of energy savings and incentive amounts occurs based on the actual installed equipment and performance. The measurement and verification reports provided to Idaho Power include a verification of energy savings, costs, estimates of measure life, and any final recommendations to ensure the persistence of savings.

Because the customers who participate in the Custom Efficiency program are some of Idaho Power's largest customers, program managers or MCRs solicit customer satisfaction feedback for the Custom Efficiency program. This is authenticated in customers' willingness to allow posting the customers' success stories on the Idaho Power website. In 2015, two new success stories were created that describe a successful energy efficiency project and a successful new program offering. The success story posted

in 2015, *Idaho Power Incentives Help Turn Wastewater Into Useable Water*, refers to a project the J.R. Simplot Company completed at their Caldwell facility. Idaho Power provided \$205,392 in incentives for energy efficiency measures that reduced costs on this project. The facility expects to save about \$95,000 in annual utility bills. The project success was further highlighted during a facility tour as part of the Idaho DEQ Water Reuse Conference. Idaho Power drafted a success story in 2015 about the WVEEC offering, anticipated to be published early 2016 along with an energy efficiency tips brochure for wastewater plants. A copy of this 2015 success story is provided in *Supplement 2: Evaluation*.

2016 Program and Marketing Strategies

Additional program offerings are currently under consideration for implementation in 2016. These efforts will be targeted at maintaining a high level of customer participation as well as achieving year-over-year program goals.

Idaho Power expanded the number of engineering firms in late 2015 that support Idaho Power's commercial/industrial programs. These firms have a variety of diverse skills including commercial grocery, commercial buildings, and industrial systems. The increase in engineering firms will allow Idaho Power to expand the number of energy audits currently being provided and help Idaho Power identify untapped potential in specific market sectors, such as the grocery and commercial building sectors.

Idaho Power will report the first year of energy savings, and incentives will be paid in 2016 for the WVEEC offering. The first year of the WSOC will commence in January 2016. Three half-day workshops and a final report-out workshop will be held in 2016. The SCE offering will continue in 2016, and new measures, processes, and other improvements will be evaluated to continuously improve the effectiveness of this offering.

Idaho Power plans to continue expanding the Custom Efficiency program through a number of activities and continued development of strategic partnerships. These activities will include direct marketing of the Custom Efficiency program by Idaho Power MCRs to further educate customers on Idaho Power energy efficiency programs, including identification of potential ways the customer can reduce energy costs and drive program participation. Additionally, the Custom Efficiency team will continue to support the Center for Advanced Energy Studies (CAES) Industrial Assessment Center (IAC) by marketing their IAC services during both customer site visits and at technical training workshops.

Idaho Power will continue to provide site visits by Custom Efficiency engineers and energy scoping audits for project identification and energy-savings opportunities; M&V of larger, complex projects; technical training for customers; and funding for detailed energy audits for larger, complex projects.

In 2016, industry-specific energy efficiency tip brochures will be revised and new ones will be completed and mailed to targeted customers, along with an insert highlighting possible incentives. These tip brochures will also be used by CRs on energy efficiency-related customer visits.

Each year, the company designs and pays for a "Top 10" ad that appears in the *Idaho Business Review*. This ad publicly congratulates companies that had the most energy savings throughout the year. The company will continue this tradition in 2016. Success stories will continue to be written and produced throughout 2016. These stories focus on businesses that took advantage of Idaho Power's Custom Efficiency program and the resulting benefits. Success stories are posted on Idaho Power's website so the highlighted businesses can print and use them to publicize their energy-efficient projects. Idaho Power will continue to assist customers with public relations opportunities by creating certificates

for display within the building and having an Idaho Power representative speak at press events if requested.

The Custom Efficiency team will be mentoring another engineering intern in 2016. These internships are important mechanisms that help drive workforce development in the energy efficiency profession.

Idaho Power will continue to support the IDL in 2016. In addition to the specific tasks outlined in the IDL description in the Other Program and Activities section of the main report and in *Supplement 2: Evaluation*, the IDL provides foundational services to customers in the Idaho Power service area. The IDL will provide energy modeling assistance for large, new construction projects. The energy modeling is used by the Custom Efficiency team to support the claimed energy savings not covered by the existing measures through the Building Efficiency program.

Easy Upgrades

| | 2015 | 2014 |
|--|-------------|-------------|
| Participation and Savings | | |
| Participants (projects) | 1,222 | 1,095 |
| Energy Savings (kWh) | 23,594,701 | 19,118,494 |
| Demand Reduction (MW) | n/a | n/a |
| Program Costs by Funding Source | | |
| Idaho Energy Efficiency Rider | \$4,155,406 | \$3,020,323 |
| Oregon Energy Efficiency Rider | \$177,713 | \$112,623 |
| Idaho Power Funds | \$17,746 | \$17,996 |
| Total Program Costs—All Sources | \$4,350,865 | \$3,150,942 |
| Program Levelized Costs | | |
| Utility Levelized Cost (\$/kWh) | \$0.017 | \$0.015 |
| Total Resource Levelized Cost (\$/kWh) | \$0.029 | \$0.025 |
| Benefit/Cost Ratios | | |
| Utility Benefit/Cost Ratio | 3.85 | |
| Total Resource Benefit/Cost Ratio | 2.20 | |

Description

Easy Upgrades is Idaho Power's prescriptive measure program for the commercial and industrial retrofit market, initiated in 2007. Customers can also apply for incentives for non-standard lighting incentives. The program encourages commercial and industrial customers in Idaho and Oregon to implement energy efficiency retrofits by offering incentives on a defined list of measures. Eligible measures cover a variety of energy-saving opportunities in lighting, HVAC, building shell, VFDs, food-service equipment, and other commercial measures. A complete list of the measures offered through the Easy Upgrades program is included in *Supplement 1: Cost-Effectiveness*.

2015 Program and Marketing Activities

Easy Upgrades experienced both an increase in program participation and energy savings in 2015. The primary reason for the energy savings increase is due to program changes implemented in the third quarter of 2014. The changes that affected program performance were increasing incentives and modifying how lighting projects were processed as well as increasing trade ally outreach for lighting. In addition, there was an increase in customer's selection of LED technology as part of their lighting retrofit, which increased the savings of many projects.

Marketing tactics included direct-mail in May and November, individualized with the customers' CRs contact information. CRs recorded receiving 57 calls from the November letter.

Idaho Power placed advertisements in the Small Business Administration resource guide, daily newspapers, select weekly papers, the *Idaho Business Review*, Boise Chamber of Commerce newsletter, the *Business Insider*, and the *Southeast Idaho Business Journal*.

Advertising thanked participating contractors, equipment suppliers, and lighting consultants for helping customers save energy and money in 2015.

Other ads conveyed the range of items incentivized by the program. While these ads ran, there were 623 page views on the Easy Upgrades Web page. Of the 623 page views, 136 came from this virtual URL listed in the ad—idahopower.com/easyupgrades. In August, 66 page views came from the virtual URL, in September, 76 page views came from the virtual URL and in October, 67 page views came from the virtual URL.

The Easy Upgrades program facilitated three technical power quality classes across the Idaho Power service area targeting electrical contractors and large customers. The program offered these classes to trade allies unable to attend classes in 2014. Idaho Power's power quality engineers presented. Feedback from the 2015 and 2014 class attendees indicated this course was valuable in helping them better understand power quality issues associated with newer energy-efficient technology and requirements for participating in the Idaho Power energy efficiency programs. The classes qualified for continuing education credits for licensed electrician and electrical contractor trade allies and 106 attendees received valuable industry-related training.

In addition to the formal training classes held, Idaho Power staff and contractors contacted over 130 trade allies in the field, via telephone, at the trade ally's business, or at a customer location to further educate them on program criteria and to respond to their inquiries. Contacts were made to strengthen relationships, encourage program participation, increase knowledge of the Easy Upgrades program, and to receive trade ally feedback about the market, the program, and trade allies' experiences. This targeted outreach was to electrical contractors, electrical distributors, and HVAC contractors.

Idaho Power continued to contract with Evergreen Consulting Group, LLC, to provide ongoing lighting specialist expertise, project support, and trade ally outreach. Idaho Power continued to contract with Honeywell, Inc., to perform non-lighting project reviews and pre- and post-non-lighting project inspections, as well as with RM Energy Consulting to support lighting project review and lighting inspections.

In 2015, Idaho Power evaluated the viability of implementing new program offerings and strategies and looked at ways to increase penetration in hard-to-reach small businesses. The company met with several third-party companies with experience in delivering energy efficiency offers to the small business sector. While each of the third parties had some interesting observations on serving the small business market, Idaho Power has not yet determined a fit for implementing those offers without significantly conflicting with its current incentive offerings in Easy Upgrades. Idaho Power has concluded that it is reaching small business customers currently and will continue to explore ways to increase program participation from these customers through marketing and improved program delivery.

Cost-Effectiveness

In 2015, Idaho Power used the same savings and assumptions as were used in 2014. For all lighting measures, Idaho Power uses a lighting tool calculator 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 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.

Several lighting and non-lighting measures that are not cost-effective remain in the program. These measures include several lighting combinations with mostly exterior applications, high-efficiency A/C units, high-efficiency heat pump units, and wall insulation. 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 modifications and cost-effectiveness exceptions were approved by the OPUC in Advice No 14 06 for 2014 and went into effect in Idaho in July and in Oregon in August 2014. Complete measure level details for cost-effectiveness can be found in *Supplement 1: Cost-Effectiveness*.

Customer Satisfaction and Evaluations

In 2015, Idaho Power developed and posted to the company's website one new success story. Titled, *What was dark is now light at Myers Alignment*, the story referenced the lighting retrofit project completed at Myers Alignment classic car restoration shop. Owner Richie Myers said, "More light. Less money. It works out great for us." Idaho Power provided \$2,504 in incentives for this energy-efficient project. The owner expects to save over \$328 in annual utility bills. A copy of this success story is provided in *Supplement 2: Evaluation*.

Idaho Power conducted an online survey with Easy Upgrades program participants that had participated in the program between June and November, 2015. The survey was sent to 400 program participants. Ninety-two customers responded to the survey for a 23 percent response rate.

Over 45 percent of survey respondents indicated they learned of the Easy Upgrades program through a contractor, supplier, or vendor. Other ways respondents learned of the program were through an Idaho Power employee (over 17 percent) and through a business associate (almost 12 percent.)

Almost 98 percent of the respondents indicated they are "very satisfied" or "somewhat satisfied" with the Easy Upgrades program and over 96 percent said they "definitely would" or "probably would" recommend the program to a business associate.

When respondents were asked if they agreed that the incentive application forms were easy to follow on a scale from 1 to 5, 5 being "strongly agree," the average response was 4.4. When asked if they agreed that their application was processed within the time frame they expected on a scale from 1 to 5, 5 being "strongly agree," the average response was 4.5.

Respondents were asked to rate their contractor in the areas of quality of work, professionalism, knowledge of the equipment, and knowledge of the Easy Upgrades. On a scale from 1 to 5, 5 being "excellent," each average response for each area was 4.6 or greater.

Over 94 percent of the respondents installed lighting or lighting controls under the Easy Upgrades program.

Survey results are included in *Supplement 2: Evaluation*.

2016 Program and Marketing Strategies

The program has identified several new lighting and non-lighting measures to add to the incentive menu and will include those in 2016. Idaho Power continues to monitor what other utilities are doing to serve the various market sectors and will watch for improvements the company can make to the program.

A third-party contractor will conduct an impact evaluation on the program's 2015 projects.

Marketing strategies for 2016 may include some or all of the following: direct mail to small and medium businesses, focus on trade ally outreach, program update workshops, print ads in various publications, trade ally thank-you ads, and other marketing as identified.

Flex Peak Program

| | 2015 | 2014 |
|--|-----------|-------------|
| Participation and Savings | | |
| Participants (sites) | 72 | 93 |
| Energy Savings (kWh) | n/a | n/a |
| Demand Reduction (MW) | 26 | 40 |
| Program Costs by Funding Source | | |
| Idaho Energy Efficiency Rider | \$86,445 | \$50,964 |
| Oregon Energy Efficiency Rider | \$219,654 | \$78,131 |
| Idaho Power Funds | \$286,773 | \$1,434,116 |
| Total Program Costs—All Sources | \$592,872 | \$1,563,211 |
| Program Levelized Costs | | |
| Utility Levelized Cost (\$/kWh) | n/a | n/a |
| Total Resource Levelized Cost (\$/kWh) | n/a | n/a |
| Benefit/Cost Ratios | | |
| Utility Benefit/Cost Ratio | n/a | |
| Total Resource Benefit/Cost Ratio | n/a | |

Description

The Flex Peak Program is a voluntary program available in Idaho and Oregon service areas designed for Idaho Power's industrial and large commercial customers capable of reducing their electrical energy loads for short periods during summer peak days. The program objective is to reduce the demand on Idaho Power's system during periods of extreme peak electricity use. By reducing demand on extreme system load days during summer months, the program reduces the amount of generation and transmission resources required to serve customers. Flex Peak Program pays participants a financial incentive for reducing load and is active June 15 to August 15, between the hours 2:00 p.m. and 8:00 p.m. on non-holiday weekdays. Reduction events may be called a maximum of 60 hours per season.

Customers with the ability to nominate or provide load reduction of at least 20 kW are eligible to enroll in the program. The 20-kW threshold allows a broad range of customers the ability to participate in the program. Participants receive notification of a load reduction event two hours prior to the start of the event, and events last between two to four hours.

The program originated in 2009 as the FlexPeak Management program. In 2015, Idaho Power took over full administration and changed the name to Flex Peak Program. Idaho Power filed an application with the IPUC on February 4, 2015, in Case No. IPC-E-15-03, and a Tariff Advice with the OPUC on March 10, 2015, in Advice No. 15-03 requesting authority to replace the existing optional FlexPeak Management demand response program managed by a third-party contractor with an optional demand response program to be managed by Idaho Power. 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 under Schedule No. 82 in Idaho and Schedule No. 76 in Oregon and continue recovery of its demand response program costs in the manner it had been previously.

2015 Program and Marketing Activities

Idaho Power used direct customer mailings to encourage both past participants and new customers to enroll. Prior to the approval of Schedule No. 82 by the IPUC and Schedule No. 76 by the OPUC several communications were sent to former FlexPeak Management program participants, to advise them about the possible upcoming program changes. After the Commissions granted authorization for the new Idaho Power managed program, Idaho Power had 25 business days for Idaho and 29 business days for Oregon to recruit customers for the Flex Peak Program before the season began on June 15, 2015.

In May 2015, Idaho Power sent program enrollment mailings to all customers who participated in prior seasons from 2012 to 2014. Mailing contents included program details, application, incentive structure, and a list of each customer's eligible service points. Additionally, the Idaho Power program specialist and CRs answered specific customer questions by phone, email, and face-to-face, informing participants of new program details.

Participants had a committed load reduction of 28.1 MW in the first week of the program, which was the peak committed load reduction for the season. This weekly commitment, or nomination, was comprised of 72 sites, of which 57 sites participated in the 2014 season, and 15 new sites were added in 2015. The committed load reduction at the end of the season was 26.37 MW achieved by 71 facility sites. One site dropped out of the program during the season due to the removal and replacement of some customer-owned equipment.

The first event was called on Tuesday, June 30. Participants were notified at 2:00 p.m. regarding the four-hour event from 4:00 p.m. to 8:00 p.m. Total nomination for this event was 27.72 MW. The average load reduction was 23.6 MW, and the highest hourly load reduction was 24.1 MW during 6:00 p.m. and 7:00 p.m. The realization rate for this event was 86.7 percent.

A second event was called on Tuesday, July 21. Participants were notified at 2:00 p.m. for a four-hour event from 4:00 p.m. and 8:00 p.m. Total nomination for this event was 26.4 MW. The average load reduction was 24.9 MW and the highest hourly load reduction was 25.6 during 4:00 p.m. and 5:00 p.m. The realization rate for this event was 96.6 percent.

The third event was called on Tuesday, August 4. Participants were notified at 2:00 p.m. for a 3-hour event from 4:00 p.m. to 7:00 p.m. Total nomination for this event was 26.2 MW. The average load reduction was 13.8 MW and the highest hourly load reduction was 14.6 MW from 6:00 p.m. to 7:00 p.m. The realization rate for this event was 55.4 percent.

The maximum realization rate during the season was 96.6 percent and the average for all three events combined was 79.6 percent. 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 25.6 MW during the July 21 event.

Idaho Power's weekly *News Briefs*—emailed to all media in the service area—mentioned the success of the company's demand response programs, including Flex Peak Program, in helping reduce the peak load during the summer season: *News Briefs* included the following: *High Summer Electricity Demand Hits Early* (June 29) and *Customers Helped Reduce Peak Electrical Loads* (July 13).

In 2010, Idaho Power identified Idaho Power's CHQ in downtown Boise as a candidate for participation in FlexPeak Management. In August 2010, Idaho Power entered into an agreement with a third-party contractor, similar to the agreement customers enter into to enroll in the program. The Idaho Power

CHQ building has participated each year since and committed to reduce 100 kW of electrical demand during events. Unlike other program participants, Idaho Power does not receive any financial incentives for participation.

Since managing the program internally, Idaho Power still chose to participate with the CHQ building. For the 2015 season, Idaho Power increased the nomination from 100 kW to 150 kW. Idaho Power's CHQ participated in all three demand response events in 2015. The average reduction achieved by the facility across the three events was 239 kW at the meter, which exceeded the nominated amount. The maximum hourly reduction was 412 kW, achieved on July 21. Reductions were mostly obtained by turning off lights, adjusting chiller set-points, decreasing fan speeds, and curtailing elevator use. Besides the benefit of experiencing firsthand what participants experience with the program, Idaho Power now has a facility reduction plan in place that could be executed at any time to reduce electricity use when necessary. Idaho Power plans to enroll more of its facilities in the program for future seasons.

Cost-Effectiveness

As part of the public workshops in conjunction with Case No. IPC E-13-14 and UM-1653, Idaho Power and other stakeholders agreed on a new method for valuing demand response. The settlement, as approved in IPUC Order No. 32923 and OPUC Order No. 13-482, determined that the annual cost of operating the three DR programs for the maximum allowable 60 hours must be no more than \$16.7 million. This \$16.7 million value is the levelized annual cost of a 170-MW deferred resource over a 20-year life. The cost of operating the three DR programs in 2015 was \$9 million. It is estimated that if the three programs were dispatched for the full 60 hours, the total costs would have been approximately \$12.4 million, which is still below the total annual costs agreed on in the settlement.

The Flex Peak Program was dispatched for three events and achieved a maximum reduction of 25.6 MW. The total 2015 cost of the program was \$592,872, had the Flex Peak Program been used for the full 60 hours, the cost would have been approximately \$789,472.

Customer Satisfaction and Evaluations

Idaho Power conducted a post-season survey sent via email to all participants enrolled in the program. The survey focused on quantifiable questions that encouraged customer feedback for future program improvement. Idaho Power received responses from 19 of 38 customers for a response rate of 50 percent. Survey results were evaluated on a 5-point rating scale, and the combined average response for all questions was 4.6 out of 5. When customers were asked how satisfied they were with their overall experience in Flex Peak Program the average response was 4.5. Additionally, when asked how likely they would be to re-enroll in the Flex Peak Program, in the future, the average response was 4.9. The results of the survey were favorable and showed that participants were satisfied. The details of the survey results are in *Supplement 2: Evaluation*. Also included in the supplement is the *Flex Peak Program 2015 Report*.

Idaho Power contracted CLEAResult to complete an impact evaluation of the 2015 Flex Peak Program. In 2015, there were 38 customers and a total of 71 sites enrolled in the program. The goals of the impact evaluation were to determine the demand reduction (in MW) and realization rate for three curtailment events during the program's June 15 through August 15 season.

CLEAResult completed analyses of curtailment events held on June 30 between 4:00 p.m. and 8:00 p.m., July 21 between 4:00 p.m. and 8:00 p.m., and August 4 between 4:00 p.m. and 7:00 p.m.

in 2015. The results shown below are different from the reductions included in the CLEAResult report, as these have been converted to generation level reductions while the CLEAResult report included reductions at meter level.

The results of the curtailment event analyses showed maximum generation level demand reductions of 24.0, 25.6, and 14.6 MW, respectively, for the three events. The results of the curtailment event analyses showed maximum meter level demand reductions of 21.9, 23.3, and 13.3 MW, respectively, for the three events. The events achieved realization rates of 86.7 percent, 96.6 percent, and 55.4 percent, respectively, averaging 79.6 percent. All three events included 71 unique sites, with the committed nominated load averaging 26.9 MW across the three events.

The results of the impact evaluation show that Idaho Power's 2015 Flex Peak Program functioned as intended and provided up to 25 MW to the electricity grid at the meter level. In addition, the Flex Peak program is scalable and with additional participants and more diversity among participants, could contribute more reduction as future capacity requirements dictate. A summary of the results is in *Supplement 2: Evaluation*.

2016 Program and Marketing Strategies

In an effort to increase enrollment and encourage participation for the 2016 program season recruitment efforts began in the fourth quarter 2015 and will continue into 2016. Idaho Power CRs or the program specialist will meet with existing participants during the off-season to discuss past-season performance and review program details. New customers will be identified mid-winter through field visits and will receive further communication in early spring. The company plans to publish an article promoting the Flex Peak Program in the *Energy@Work* spring quarterly newsletter sent to all commercial and industrial customers. Flex Peak Program will be marketed with Idaho Power's energy efficiency programs and promoted at program booths during events, such as vendor fairs and professional organizations.

Idaho Power plans to launch a marketing campaign early in 2016 with CRs to recruit new participants. The company is developing new program literature and a new program brochure. This marketing campaign will focus on identifying customer dynamics that make successful program participation and will also highlight available incentive amounts based on customers' load size. The Flex Peak Program will be jointly marketed with Idaho Power's other energy efficiency programs. Marketing campaign goals are to increase the number, size (in terms of nominated load reduction), and diversity of sites enrolled. Through a larger diversity of participants nominated load reduction, the Flex Peak Program would be less prone to volatility in its realization rate.

Oregon Commercial Audits

| | 2015 | 2014 |
|--|---------|---------|
| Participation and Savings | | |
| Participants (audits) | 17 | 16 |
| Energy Savings (kWh) | n/a | n/a |
| Demand Reduction (MW) | n/a | n/a |
| Program Costs by Funding Source | | |
| Idaho Energy Efficiency Rider | \$0 | \$0 |
| Oregon Energy Efficiency Rider | \$4,251 | \$9,464 |
| Idaho Power Funds | \$0 | \$0 |
| Total Program Costs—All Sources | \$4,251 | \$9,464 |
| Program Levelized Costs | | |
| Utility Levelized Cost (\$/kWh) | n/a | |
| Total Resource Levelized Cost (\$/kWh) | n/a | |
| Benefit/Cost Ratios | | |
| Utility Benefit/Cost Ratio | n/a | |
| Total Resource Benefit/Cost Ratio | n/a | |

Description

The Oregon Commercial Audits program identifies opportunities for commercial building owners to achieve energy savings. Initiated in 1983, this statutory-required program (ORS 469.865) is offered under Oregon Schedule No. 82. Through this program, free energy audits provide evaluations and educational services to customers. Annual mailings to each customer in the commercial sector communicate program benefits and offerings.

2015 Program and Marketing Activities

Idaho Power sent out its annual mailing to 1,449 Oregon commercial customers in mid-September 2015. Customers received notification of the availability of no-cost or low-cost energy audits, or the Idaho Power *Saving Energy Dollars* booklet. Seventeen customers requested an audit. Of those audits, a third-party contractor completed five audits, Idaho Power personnel completed seven audits, and one customer canceled the audit. Four customers received a requested booklet only. The costs were down in 2015 over 2014 because a third-party contractor performed only five audits.

Idaho Power contracts with EnerTech Services to perform a portion of the requested audits. Energy audits include a review of the customer's past billing data and an inspection of the building shell, HVAC equipment, operating schedules if available, and lighting systems. Additionally, audits enables discussions regarding incorporating specific business operating practices for energy use improvements. During the audits, customers receive Idaho Power energy efficiency program information.

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.

Customer Satisfaction and Evaluations

Audits provide the opportunity to discuss utility incentives available to customers who install qualifying energy efficiency measures. Both activities can lead to energy efficiency projects being undertaken. Customers are generally pleased with the audit process because the audits help identify energy-saving opportunities that may not be obvious to the business owner. Business owners can make the decisions to change operating practices or make capital improvements designed to use energy wisely.

2016 Program and Marketing Strategies

The Oregon Commercial Audits program will continue to be an important avenue for Idaho Power to help customers identify energy-saving opportunities. The audits help pinpoint favorable energy-saving actions that customers may pursue through customer behavioral changes or potential capital projects, such as replacing inefficient lighting. Additionally, Idaho Power also uses the audit process to introduce customers to Idaho Power's energy efficiency incentive programs. Idaho Power markets the program through the annual customer notification.

IRRIGATION SECTOR OVERVIEW

Description

The irrigation sector is composed of agricultural customers operating water-pumping or water-delivery systems to irrigate agricultural crops or pasturage. End-use 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 December 2015, the active and inactive irrigation service locations totaled 20,293 system-wide. This was an increase of 2.4 percent compared to 2014, primarily due to the addition of service locations for pumps and pivots to convert land previously furrow-irrigated to sprinkler irrigation systems. Irrigation customers accounted for 2,046,290 MWh of energy usage in 2015, which was an increase from 2014 by over 4.1 percent due to an earlier, drier summer. This sector represented nearly 14 percent of Idaho Power's total electricity usage, and 14 percent of overall revenues. Energy usage for this sector has not grown significantly in many years; however, there is substantial yearly variation in usage due primarily to the impact of weather on customer irrigation needs.

Idaho Power offers two programs to the irrigation sector: 1) Irrigation Efficiency Rewards, an energy efficiency program designed to encourage the replacement or improvement of inefficient systems and components and 2) Irrigation Peak Rewards, a demand response program designed to provide a system peak resource. Idaho Power also pays incentives to customers participating in the Green Rewind offering under Irrigation Efficiency Rewards. Motor service centers are paid \$2 per hp for each NEMA Standard hp-rated motor up to 5,000 hp for agricultural uses that receives a verified Green Rewind. Participation in Green Rewind ensures the motor's original efficiency is maintained if it is rewound at an approved service center.

The Irrigation Efficiency Rewards program, in operation since 2003, experienced reduced annual savings, with 18,464 MWh in 2014 and 14,027 MWh in 2015. Annual savings were down in 2015 likely due to a reduction in agricultural commodity prices, and 2014 was the highest year of energy savings ever for the program. During 2015, the Irrigation Efficiency Rewards program contributed 13,937 MWh, while the 32 motors in Green Rewind contributed 90 MWh per year of energy savings.

In 2015, the Irrigation Peak Rewards program was in its second full season of full operation after temporarily being suspended for the 2013 season. Again in spring 2015, Idaho Power successfully marketed to the majority of prior Peak Rewards participants to continue their participation in the program, with a small increase of 1.5 percent in eligible service points participating over 2014.

Table 12 summarizes the overall expenses and program performance for both the energy efficiency and demand response programs provided to irrigation customers.

Programs

Table 12. 2015 irrigation program summary

| Program | Participants | Total Cost | | Savings | | |
|-------------------------------------|----------------------|---------------------|---------------------|---------------------|------------------|--|
| | | Utility | Resource | Annual Energy (kWh) | Peak Demand (MW) | |
| Demand Response | | | | | | |
| Irrigation Peak Rewards..... | 2,259 service points | \$ 7,258,831 | \$ 7,258,831 | n/a | 305 | |
| Total | | \$ 7,258,831 | \$ 7,258,831 | n/a | 305 | |
| Energy Efficiency | | | | | | |
| Irrigation Efficiency Rewards | 902 projects | \$ 1,835,711 | \$ 9,939,842 | 14,027,411 | | |
| Total | | \$ 1,835,711 | \$ 9,939,842 | 14,027,411 | | |

Note: See Appendix 3 for notes on methodology and column definitions.

Each year, the company conducts a customer relationship survey. Overall, 47 percent of Idaho Power irrigation customers surveyed in 2015 for the Burke Customer Relationship survey indicated Idaho Power was meeting or exceeding their needs in offering energy efficiency programs. Fifty percent of survey respondents indicated Idaho Power is meeting or exceeding their needs with information on how to use energy wisely and efficiently. Sixty percent of respondents indicated Idaho Power is meeting or exceeding their needs with encouraging energy efficiency with its customers. Overall, 36 percent of the irrigation survey respondents indicated they have participated in at least one Idaho Power energy efficiency program. Of irrigation survey respondents who have participated in at least one Idaho Power energy efficiency program, 93 percent are “very” or “somewhat” satisfied with the program.

Irrigation Efficiency Rewards

| | 2015 | 2014 |
|--|-------------|-------------|
| Participation and Savings | | |
| Participants (projects) | 902 | 1,128 |
| Energy Savings (kWh) ^a | 14,027,411 | 18,463,611 |
| Demand Reduction (MW) | n/a | 4.6 |
| Program Costs by Funding Source | | |
| Idaho Energy Efficiency Rider | \$1,714,399 | \$2,256,235 |
| Oregon Energy Efficiency Rider | \$61,295 | \$144,392 |
| Idaho Power Funds | \$60,018 | \$45,880 |
| Total Program Costs—All Sources | \$1,835,711 | \$2,446,507 |
| Program Levelized Costs | | |
| Utility Levelized Cost (\$/kWh) | \$0.016 | \$0.016 |
| Total Resource Levelized Cost (\$/kWh) | \$0.085 | \$0.119 |
| Benefit/Cost Ratios | | |
| Utility Benefit/Cost Ratio | 6.00 | |
| Total Resource Benefit/Cost Ratio | 3.84 | |

^a Includes kWh savings from Green Rewind projects.

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 Idaho and Oregon service area can receive financial incentives and reduce their electricity usage. Incentives for the Irrigation Efficiency Rewards program help customers recover a portion of the costs of installing a new, more efficient irrigation system or energy-efficient improvements to existing systems.

Two options help meet the needs for major or minor changes to new or existing systems. The Custom Incentive Option addresses extensive retrofits of existing systems or new irrigation systems, providing component upgrades and large-scale improvements, and helps pay for more efficient new irrigation systems. For new systems, the incentive is 25 cents per the first year of kWhs saved above standard installation methods, not to exceed 10 percent of the new system's cost. For existing system upgrades, the incentive is 25 cents per the first year of kWhs saved, or \$450 per kW demand reduction, whichever is greater, but not to exceed 75 percent of the total project cost. The qualifying energy efficiency measures include any hardware changes that result in a reduction of the potential kWh usage of an irrigation system.

Idaho Power reviews, analyzes, and makes recommendations on each application. On each completed project, before final payment, all project information is reviewed. Prior usage history, actual invoices, and, in many situations, post-usage demand data are available to verify savings and incentives.

The Menu Incentive Option covers a significant 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 11 separate measures. These measures are as follows:

- 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
- New drains for pivots or wheel-lines
- New riser caps and gaskets for hand-lines, wheel-lines, and portable mainlines
- New wheel-line hubs
- New pivot gooseneck and drop tube
- Leaky pipe repair
- New center pivot base boot gasket

Payments are calculated on pre-determined average kWh savings per component.

In addition to incentives, the program offers customer education, training, and irrigation-system assessments. Idaho Power ARs sponsor, coordinate, conduct, and present educational workshops for irrigation customers, providing expert information and training across Idaho Power's service area. Energy audits conducted by Idaho Power ARs evaluate prospective customers' potential savings. ARs from Idaho Power also engage agricultural irrigation equipment dealers in training sessions, increasing their knowledge of energy-efficient designs and awareness of the program and promoting the program through the irrigation equipment distribution channels. Marketing efforts include direct mailings, ads in agricultural publications, direct customer and equipment dealer interaction, and participation in agricultural workshops and conferences.

Because the irrigation sector is a load comprised primarily of motors, Idaho Power participates in Green Rewinds. It is an opportunity that enables customers to maintain the motor's original efficiency by ensuring proper rewind of the electric motor. Motor service centers are paid \$2 per hp for each NEMA Standard hp-rated motor 15 hp to 5,000 hp that receives a verified Green Rewind. The RTF approved the Green Motors Practices rewinding as an energy efficiency measure and approved a table of deemed savings for industrial and agricultural applications. In 2013, the RTF updated the deemed savings values. The RTF numbers did not change for 2015.

2015 Program and Marketing Activities

Of the 930 irrigation efficiency projects completed in 2015, 799 were associated with the Menu Incentive Option, providing an estimated 11,262 MWh of energy savings and 2.2 MW of demand reduction. The Custom Incentive Option had 103 projects, of which 46 were new irrigation systems and 57 were on existing systems. This option provided 2,676 MWh of energy savings and 1.2 MW of demand reduction for the year. Also during 2015, irrigation customers contributed 90,074 kWh of energy savings from 32 motors participating in the Green Rewind opportunity.

Idaho Power agricultural representatives (AR), the program specialist, and the agricultural engineer participated in training annually that maintains or obtains their Certified Irrigation Designer and Certified Agricultural Irrigation Specialist certifications. This training allows Idaho Power to maintain its high level of expertise in the irrigation industry and is sponsored by the nationally based Irrigation Association.

Idaho Power continued to market the program by varying the location of workshops and offering new presentations to irrigation customers. In 2015, Idaho Power provided seven workshops promoting the Irrigation Efficiency Rewards program throughout the service area. Approximately 210 customers attended workshops in Blackfoot, Burley (2), Twin Falls, Mountain Home, Richland, and Ontario. One specific workshop focused on agricultural safety and irrigation efficiency for Spanish-speaking farm workers. For continual training purposes, Idaho Power recorded this workshop and provided a DVD to customers with Spanish-speaking employees. Upon invitation, Idaho Power presented the program at four workshops sponsored by agricultural groups in Blackfoot, Nampa, Boise, and Parma. The company displayed exhibitor booths at regional agricultural trade shows, including the Eastern Idaho Agriculture Expo, Western Idaho Agriculture Expo, the Agri-Action Ag show, the Treasure Valley Irrigation Conference, and the Idaho Irrigation Equipment Association show and conference. In addition, ARs made targeted visits or communicated with a selected number of non-program participants to increase customer education. Idaho Power maintained a database of irrigation dealers and vendors for direct-mail purposes. Irrigation dealers and vendors are a key component to the successful marketing of the program; therefore, face-to-face interactions and direct mailings containing the most up-to-date program information, brochures, and dealer-specific meetings ensured correct program promotion.

In 2015, the company used direct mail to send two publications of the newsletter *Irrigation News* to all irrigation customers in Idaho and Oregon to keep customers informed and to improve customer satisfaction. The newsletter shares valuable information specifically for irrigation customers to clarify processes, helps customers better understand their bills, provides information on energy efficiency and energy efficiency programs, clarifies rates, and supplies safety information. The newsletters stimulated opportunities to communicate with irrigation customers on a variety of topics to improve customer relations and promote the Irrigation Efficiency Rewards program.

Print publications that marketed the Irrigation Efficiency Rewards program consisted of eight print ads in five agricultural print publications and two opportunities in radio advertising during Agri-Action and the Future Farmers of America (now FFA) National FFA Week. Four digital ads using the creative material are being tested with the target audience to determine if they respond well to digital information sources. Digital ads ran in *The Capital Press* from December 19, 2014, to January 16, 2015, with a guaranteed 60,000 impressions during the cycle, with 91 click-throughs.

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 estimates the effectiveness of a project using a service point's previous five years of electricity usage history on a case-by-case basis depending on the applicant's history. 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 by Idaho Power ARs 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 in how the components are actually being used. For example, a half-circle center pivot will only save half as much energy per sprinkler head as a full-circle 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 examples above, the deemed savings are adjusted.

Based on the deemed savings from the RTF, all the measures offered under the Menu Incentive Option are cost effective, with the exception of rebuilt or new brass impact sprinklers. Idaho Power determined these brass sprinklers meet at least one of the cost-effectiveness exceptions outlined in OPUC Order No. 94 590. Idaho Power filed UM 1710 to request a cost-effectiveness exception with the OPUC on November 4, 2014, and subsequently re-filed it on February 11, 2015. The OPUC approved of this in Order No. 15-200, issued June 23, 2015. Complete measure level details for cost-effectiveness can be found in *Supplement 1: Cost-Effectiveness*.

2016 Program and Marketing Strategies

Marketing plans for 2016 include conducting 7 to 10 customer-based irrigation workshops. Additionally, Idaho Power will continue to participate in five regional agricultural trade shows. These workshops and trade shows enable discussions between Idaho Power representatives, the company's customers, irrigation dealers, and trade allies while continually educating them about irrigation best practices, the program, and ways to participate. Each year, workshops are conducted in different local areas. Subjects and presentations are updated to offer new ideas.

Idaho Power will work closely with customers who have participated in the Irrigation Efficiency Rewards program and continue to do photo shoots highlighting efficient irrigation system designs for program promotion. ARs will continue to conduct irrigation system audits to encourage participation in the program.

Through the Idaho Power *Irrigation News* newsletter, the company will continue to provide valuable information to clarify processes, help customers understand their bill, provide information on energy efficiency and energy efficiency programs, clarify rates, and supply safety information, specifically for irrigation customers.

The company created a 2016 media plan aimed at increasing the impact of advertising on this program. Idaho Power will continue to promote the program in print ads in agricultural-focused editions of Idaho newspapers and agriculture magazines using new creative material. The company will continue to participate in five regional trade shows to increase customer interaction and to promote the program.

Irrigation Peak Rewards

| | 2015 | 2014 |
|--|-------------|-------------|
| Participation and Savings | | |
| Participants (service points) | 2,259 | 2,225 |
| Energy Savings (kWh) ^a | n/a | n/a |
| Demand Reduction (MW) | 305 | 295 |
| Program Costs by Funding Source | | |
| Idaho Energy Efficiency Rider | \$1,018,139 | \$1,374,724 |
| Oregon Energy Efficiency Rider | \$222,614 | \$104,995 |
| Idaho Power Funds | \$6,018,079 | \$6,117,494 |
| Total Program Costs—All Sources | \$7,258,831 | \$7,597,213 |
| Program Levelized Costs | | |
| Utility Levelized Cost (\$/kWh) | n/a | n/a |
| Total Resource Levelized Cost (\$/kWh) | n/a | n/a |
| Benefit/Cost Ratios | | |
| Utility Benefit/Cost Ratio | n/a | |
| Total Resource Benefit/Cost Ratio | n/a | |

Description

Idaho Power's 2015 Irrigation Peak Rewards program is a voluntary program available to Idaho and Oregon agricultural irrigation customers with service locations that had participated in the past. Initiated in 2004, the purpose of the program is to minimize or delay the need to build new supply-side resources. By reducing demand on the most extreme load days in the most extreme summer conditions, the Irrigation Peak Rewards program can reduce the amount of generation and transmission resources Idaho Power needs to build. The program pays irrigation customers a financial incentive for the ability to turn off specified irrigation pumps with the use of one or more load control devices during the program season of June 15 through August 15. The Irrigation Peak Rewards program provides approximately 300 MW of load reduction, which is a capacity near 9 percent of Idaho Power's all-time system peak. This program, along with Idaho Power's other demand response program, is to minimize or delay the need to build new supply-side peaking resources.

In 2015, Idaho Power agricultural irrigation customers in both Idaho and Oregon that had service locations that participated in the past were eligible for participation. Customers could choose between two options: 1) an Automatic Dispatch Option that allows Idaho Power to remotely turn off participants' pumps or 2) a Manual Dispatch Option designed for large service locations with 1,000 hp or greater that allows participating customers, after being notified by Idaho Power, to choose which pumps to manually turn off during a load control event.

For customers participating in either of the dispatch options, load control events could occur up to four hours per day, up to 15 hours per week, but no more than 60 hours per season. Only service locations that had participated in the past were eligible to participate in the program for 2015. Participating customers were guaranteed to experience at least three events per season. Dispatchable load control events could happen between 1:00 p.m. and 9:00 p.m. on weekdays and Saturday. The incentive structure consisted of fixed and variable payments. The fixed portion was paid based on participation during each of the first three events. The variable incentive was applied based on participation in events

following the first three. Customers who chose to participate until 9:00 p.m. could receive a higher variable incentive for events that occurred after the first three. A control device attached to the customer's individual pump electrical panels allowed Idaho Power to remotely control the pumps. Participants in the Manual Dispatch Option were required to nominate the amount of kW they were enrolling in the program by June 1 of the program year.

Program rules allow participants the ability to opt out of dispatch events up to five times per service point. The first three opt-outs each incur a penalty fee of \$5 per kW, while the remaining two opt-outs each incur a penalty fee of \$1 per kW based on the current month's billing kW. The opt-out penalty fees may be prorated to correspond with the dates of program operation and are completed through manual bill adjustments. The fees will never exceed the amount of the incentive that would have been paid.

The incentive amounts that participating customers received per participating service location are listed in Table 13.

Table 13. 2015 program incentives

| Option | Fixed Demand Credit (\$/billing kW) | Fixed Energy Credit (\$/billing kWh) | Variable Energy Credit (\$/billing kWh) | Extended Hour Variable Energy Credit (\$/billing kWh) |
|------------------------------------|--|---|--|--|
| Automatic and manual options | \$5.00 | \$0.0076 | \$0.148 | \$0.198 |

2015 Program and Marketing Activities

In 2015, Idaho Power used workshops, trade shows, and direct customer mailings to make a concerted effort to encourage past participants to re-enroll in the program. The number of service points enrolled to participate in the program for 2015 was 2,259, an increase of 1.5 percent over 2014 enrollment. This accounted for approximately 81 percent of the eligible service points. The three load control events occurred June 29, July 2, and August 11, 2015, with the highest load reduction occurring on June 29, providing an estimated 305 MW at the generation level.

In 2015, the program was only marketed to customers who had service locations that had participated in the program in the past. Idaho Power provided information about the 2015 Irrigation Peak Rewards program at seven workshops throughout the service area. Approximately 210 customers attended workshops in Blackfoot, Burley (2), Twin Falls, Mountain Home, Richland, and Ontario. One specific workshop focused on agricultural safety and irrigation efficiency for Spanish-speaking farm workers. For continual training purposes, Idaho Power recorded this workshop and provided a DVD to customers with Spanish-speaking employees. Upon invitation, Idaho Power presented the program at four workshops sponsored by agricultural groups in Blackfoot, Nampa, Boise, and Parma. The company displayed exhibitor booths at regional agricultural trade shows, including the Eastern Idaho Agriculture Expo, Western Idaho Agriculture Expo, the Agri-Action Ag show, the Treasure Valley Irrigation Conference, and the Idaho Irrigation Equipment Association show and conference. Additionally, numerous one-on-one conversations with Idaho Power ARs informed customers of the 2015 program eligibility requirements and program offering.

The company redesigned an informational flyer to increase appeal and readability by using a brochure format. Idaho Power mailed the new brochure, program enrollment application, and program agreement, to all eligible participants in February 2015.

Cost-Effectiveness

The methods used to determine the cost-effectiveness of the demand response programs was updated in 2014. As part of the public workshops in conjunction with Case No. IPC E-13-14, Idaho Power and other stakeholders agreed on a new method for valuing demand response. The settlement agreement, as approved in IPUC Order No. 32923, defined the annual cost of operating the three demand response programs for the maximum allowable 60 hours must not be more than \$16.7 million. This \$16.7 million value is the levelized annual cost of a 170-MW deferred resource over a 20-year life. In 2015, the cost of operating the three demand response programs was \$9 million. It is estimated that if the three programs were dispatched for the full 60 hours, the total costs would have been approximately \$12.4 million, and the programs would have remained cost effective.

The Irrigation Peak Rewards program was dispatched for 12 event hours and achieved a maximum demand reduction of 305 MW. The total expense for 2015 was \$7.3 million and would have been approximately \$10.5 million if the program was fully used for 60 hours.

Customer Satisfaction and Evaluations

Each year, Idaho Power produces an internal annual report for the Irrigation Peak Rewards program. This report includes a load-reduction analysis, cost-effectiveness information, and program changes. A copy is included in *Supplement 2: Evaluation*.

Idaho Power contracted CLEAResult to complete an impact evaluation of the 2015 Irrigation Peak Rewards program. The goals of the impact evaluation were to determine the demand reduction (in MW) during three curtailment events and determine the counterfactual realization rate had an event been called on each business day during the program's June 15 through August 15 season.

CLEAResult completed analyses of curtailment events held on June 29, July 2, and August 11, 2015, each containing four dispatch groups that curtailed enrolled irrigation pumps in rolling four-hour increments. The results of the curtailment event analyses showed maximum generation level demand reductions of 305.3, 300.3, and 197.7 MW, respectively, for the three events. The results of the curtailment event analyses showed maximum meter level demand reductions of 278.3, 273.8, and 180.2 MW, respectively, for the three events. The events achieved realization rates of 69.0 percent, 67.9 percent, and 44.7 percent, respectively, averaging 60.5 percent.

The results of the counterfactual realization rate analysis demonstrated as in past years, that date has a large influence on the expected realization rate. While the first quarter of the program season (June 15–July 30) showed an average expected realization rate of 68.6 percent, the expected realization rate in the last three quarters of the season (July 1–August 15) drops off significantly, to an average of 49.1 percent. This is due to a higher percentage of pumps being shut off during the baseline period in the first two weeks of August. The 2015 counterfactual realization rate peaks in the last two weeks of June, which was two weeks earlier than 2014 due to an earlier start of the growing season. The analysis determined that the highest realization rate of 73.1 percent occurred June 25. CLEAResult's analysis shows that had the program experienced a load control event on that day, it would have resulted in a 323 MW load reduction at the utility generation level.

A further breakdown of the load reduction for each event by program option is shown in Table 14.

Table 14. Load reduction for each event by program option

| Event | Option 1 & 2 | Option 3 | Total Load (MW) |
|-----------------|-------------------|-------------------|-----------------|
| | Load Reduced (MW) | Load Reduced (MW) | |
| June 29 | 244.0 | 61.3 | 305.2 |
| July 2..... | 238.8 | 61.6 | 300.3 |
| August 11 | 150.6 | 47.1 | 197.7 |

2016 Program and Marketing Strategies

Idaho Power will continue to work with past participants in this program who are eligible to participate in 2016 to encourage their participation.

The company will conduct 7 to 10 workshops throughout the company's regions to familiarize customers with the program details and eligibility requirements. Through direct-mail, each eligible customer will receive an informational packet containing a personalized letter, sign-up worksheet, informational brochure, and contract agreement encouraging their participation for the 2016 program season. Idaho Power ARs will continue one-on-one customer contact to inform and encourage program participation.

Idaho Power filed a request in December 2015 to modify the existing Irrigation Peak Rewards program to allow the company to use more of its Automated Metering Infrastructure (AMI) technology for load control, as well as allow greater flexibility for some customers to participate in the Manual Dispatch Option. Approved in Idaho and Oregon in February 2016, this modification could reduce overall program costs while providing additional flexibility to some participants by enabling more customers to participate in the Manual Dispatch Option.

MARKET TRANSFORMATION

Northwest Energy Efficiency Alliance

Market transformation is an effort to 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. Market transformation can also attempt to identify barriers and opportunities to increase the market adoption of efficiency. Idaho Power achieves market transformation savings primarily through its participation in NEEA. Idaho Power has been a funding member of NEEA since its inception in 1997. NEEA's role in this process is to look to the future to find emerging opportunities and to create a path forward to make those opportunities a reality in the region.

NEEA's current, five-year funding cycle began 2015. In this cycle the 2015 to 2019 NEEA business plan is forecast to obtain 145 aMW of regional energy savings at a cost savings of about \$3 million over the next five years to Idaho Power customers as compared to the previous five-year business plan. The NEEA plan also offered some optional programs and activities to prevent overlap of activities when local utilities have the capability to provide the same services at a lower cost or more effectively.

Idaho Power participates in all of NEEA's committees and workgroups including representation on the Regional Portfolio Advisory Committee and the Board of Directors. In 2015, Idaho Power helped design and implement the Commercial and Industrial Lighting Regional Market Plan. These efforts will continue through the current funding cycle, 2015 to 2019.

NEEA performs several MPERs on various energy efficiency efforts each year. In addition to the MPERs, NEEA provides market-research reports, through third-party contractors, for energy efficiency initiatives throughout the Pacific Northwest. Copies of these reports are included on the CD accompanying *Supplement 2: Evaluation* and on NEEA's website under Market Effects Evaluation.

Commercial and Industrial NEEA Activities

NEEA continued to provide support for commercial energy efficiency activities in Idaho in 2015. This included partial funding of the IDL for trainings and additional tasks.

Technical training and education continue to be important to Idaho Power's industrial customers, helping them identify energy efficiency opportunities within their facilities. In 2015, Idaho Power opted out of the NEEA provided training. This training was managed internally in 2015 to allow for more flexibility in course offerings to reduce the costs of the training. Refer to the Custom Efficiency program section for more details regarding the technical training classes.

The Idaho Building Code Board requested the Idaho Code Collaborative review the 2015 codes and make a recommendation to the board on adoption. NEEA facilitated the first meeting held December 2, 2015, and will facilitate the additional meetings scheduled in 2016.

NEEA partnered with Idaho Power and BOMA Idaho to provide a four-hour commercial real estate educational training session. The *Making the Business Case for Energy Efficient Properties* session—postponed in 2014 due to circumstances beyond Idaho Power's control—was held in Boise on January 29, 2015. Forty-two attendees participated, including architects, engineers, interior designers, property managers, and real estate professionals. The AIA and Idaho Real Estate Commission (IRC) offered credits to attendees.

NEEA facilitated regional lighting webinars for new construction to discuss how utilities can effectively align code changes and utility programs. NEEA is using the code collaborative in Idaho and Montana as examples of success for other regions. NEEA held a webinar on November 23, 2015, and will hold additional webinars in 2016.

NEEA facilitated the conference planning committee and, along with Idaho Power, supported the 2015 Idaho Energy and Green Building Conference held in Boise on November 4 and 5, 2015. Idaho Power had two active members on the conference planning committee.

Idaho Power remained informed on NEEA's initiatives in the commercial lighting arena. The company was also updated on progress at periodic conference calls and meetings. Idaho Power continued participation as a member of the NEEA Commercial Lighting Program Manager Work Group. This group consists of utility stakeholders who work together for the region's success in commercial lighting. The first two initiatives launched from this work group—Reduced Wattage Lamp Replacement (RWLR) and the Top-Tier Trade Ally (TTTA)—continue to move forward.

Results of the RWLR market test pilot evaluation were presented in 2015. The evaluation found that the RWLR program is a viable and needed effort, given the remaining large market potential, which resulted in the decision for NEEA to expand the program across the region. In addition, the evaluation showed the program processes ran smoothly and resulted in high distributor satisfaction and praise for the program; however, the evaluators recommended that NEEA further automate its data processing and quality assurance steps and consider a switch to a more rigorous database tool for data tracking. The focus on distributors was identified as a solid strategy, although the report recommended additional demand-side interventions would be beneficial in transforming the market. The evaluation identified paying distributors incentives above a historical baseline was not a viable program strategy. Consequently, NEEA has adjusted the payment strategy to a per unit incentive coupled with market share target bonuses and staff promotions. Finally, the pilot evaluation pointed out that a range of barriers stand in the way of the program's long term success, and NEEA should continue to seek opportunities to educate distributors, contractors, and end users about reduced wattage T8s and their performance, thus dispelling any misconceptions and concerns with the technology and placing the product top of mind. The results of the 2015 pilot are included in the 2015 NEEA reports located on the CD accompanying *Supplement 2: Evaluation*.

In 2015, NEEA recruited several distributors in Idaho Power's service area to participate in the RWLP initiative. Results of 2015 RWLR activities are being analyzed and these results are expected to be published 2016.

NEEA continued development of the TTTA pilot training curriculum and structure in 2015. Implementation of pilot trainings in selected areas (Idaho included) will begin in 2016.

Idaho Power also participated in the Regional Strategic Market Planning Collaborative for commercial and industrial lighting. The collaborative formed in 2015 to create regional strategic market plans in four market segments. Commercial and industrial lighting was the first segment of focus because it was identified as the collaborative's top priority. Idaho Power is represented on a steering committee formed to monitor and oversee the progress of the regional commercial and industrial lighting plan.

The NEEA Existing Building Renewal (EBR) pilot project in Boise, which began in 2013 and phased through 2016, saw no significant results in 2015. The project has not resulted in any Idaho Power incentive applications.

NEEA completed several assessment studies related to irrigated agriculture to support their scanning activities. Idaho Power has kept apprised of these activities and has reviewed each of these assessments. Copies of the reports are included on the CD accompanying *Supplement 2: Evaluation* and on NEEA's website under NEEA Market Effects Evaluations.

Residential NEEA Activities

NEEA supported a variety of residential programs and associated activities in Idaho Power's service area in 2015. NEEA is directly involved in support for ENERGY STAR[®] Homes Northwest NSH pilot program, the RPP Initiative, the DHP research project, and the Smart Water Heat Initiative (previously known as the HPWH Initiative). Idaho Power has a member on the board of directors and served on the Residential Advisory Committee, the Efficient Homes Workgroup, the Ductless Heat Pump Workgroup, the HPWH Workgroup, the RPP Workgroup, the Super Efficient Dryers Workgroup, and RETAC. Idaho Power participated in the Northwest Regional Retail Collaborative.

Idaho Power participated in NEEA's Residential Advisory Committee meetings and activities throughout 2015. Additionally, three Idaho Power representatives attended NEEA's Efficiency Exchange in April 2015.

NEEA provides ENERGY STAR Homes Northwest builder and contractor training, manages the regional-homes database, develops regional marketing campaigns, and coordinates the various building specifications and requirements with the EPA and utilities in Idaho, Montana, Oregon, and Washington. A third-party implementer hired by NEEA manages most of these activities.

NEEA launched the NSH Initiative to advance energy-efficient building practices and technologies for single-family homes. During three phases of a market test strategy, NEEA partnered with builders throughout the region to build homes for the NSH pilot. Market tests provided NEEA the opportunity to evaluate costs, challenges, best practices, and actual performance of homes built to NSH performance targets. Market tests also identified market barriers. The third phase is ongoing.

In 2015, Idaho Power participated in NEEA's Efficient Homes Workgroup. This workgroup assists NEEA in taking energy-efficient homes to a higher energy efficiency standard. The primary focus of the workgroup in 2015 was NEEA's NSH pilot program. The goal of this pilot program is to identify the most cost-effective ways to achieve maximum energy savings in residential new construction. NEEA continues to recruit builders throughout the Northwest to build to a high-performance specification. NEEA will install monitoring devices in homes to track energy saving performance. A developer recently built the first Next Step Home in McCall, Idaho, located within Idaho Power's service area. An experimental CO₂ heat pump system heats the home's air and water. This system is currently undergoing UL testing in the United States and has not yet received UL approval. Another NSH is currently under construction in McCall. The home's air and water will be heated with a CO₂ heat pump space and water heating system.

Idaho Power was a member of NEEA's Ductless Heat Pump Workgroup during 2015. NEEA has coordinated the DHP research project since 2009, which includes data collection, design, results analysis, savings calculations, and ongoing promotional activities. The goal of NEEA is to encourage the adoption of these products while displacing the use of existing electric-resistance zonal heating systems in homes. Idaho Power currently offers a \$750 cash incentive for qualified homeowners who install a qualified DHP system through the Heating & Cooling Efficiency Program.

Idaho Power participated in NEEA's HPWH Workgroup in 2015. NEEA coordinated a residential HPWH research project in the Northwest region that started approximately six years ago. The goal of the project is to promote the adoption of higher-efficiency HPWHs over traditional resistance-heat water heaters. Idaho Power monitors NEEA's research on this topic.

NEEA completed a Heat Pump Water Heater Model Validation study designed to integrate all previous work in the Northwest on HPWHs with the purpose of establishing a proven UES estimate for the RTF. This project comprehensively draws on laboratory studies and, importantly, two previously conducted field studies. Seventy sites had been previously studied in the field and this project added 50 more. Results indicate that across different combinations of HPWH models and installation locations, average annual coefficient of performances (aCOP) varied between 1.6 and 2.4, which represents a two- to three-fold increase in efficiency over a resistance tank. Overall, the study provided the necessary field observations of the independent determinants of HPWH energy use to predict their behavior with confidence across the general population of houses in the Northwest. On March 2, 2015, NEEA published the *Heat Pump Water Heater Model Validation Study* created by Ecotope. A copy of the NEEA Report E15 306 is included on the CD accompanying *Supplement 2: Evaluation*.

NEEA performed a laboratory assessment on a General Electric brand HPWH to evaluate the performance of the product in northern climates. The testing plan included characterizing the equipment operating modes, observing heat pump efficiency, and measuring noise levels. Testing was also performed using the new US DOE standard written in 2014. Overall results suggest that the product is an efficient HPWH for small to medium hot water loads and is appropriate for some applications in the Pacific Northwest. On April 9, 2015, NEEA published the *Laboratory Assessment of GE GEH50DFEJSRA Heat Pump Water Heater* created by Ecotope. A copy of the NEEA Report E15 013 is included on the CD accompanying *Supplement 2: Evaluation*.

NEEA engaged Evergreen Economics to conduct the first annual market progress evaluation for NEEA's Smart Water Heat Initiative (i.e., HPWH Initiative). In July 2015, NEEA changed the name of from the HPWH Initiative to the Smart Water Heat Initiative. The NEEA website for this initiative was smartwaterheat.com and in August 2015 was replaced with updated content and renamed hotwatersolutionsnw.org. The results indicate manufacturers are engaged and interested in meeting the Northern Climate Specification, a performance product specification created by NEEA. The evaluation identified that most HPWHs were planned purchases, not emergency replacement situations. HPWHs are not generally stocked at all levels of the supply chain, making them sometimes difficult to find in retail stores. Brand familiarity is also important to purchasers. On October 14, 2015, NEEA published the *Northwest Heat Pump Water Heater Initiative Market Progress Evaluation Report #1* created by Evergreen Economics. A copy of the NEEA Report E15 323 is included on the CD accompanying *Supplement 2: Evaluation*.

Idaho Power actively participated in the NEEA RPP Workgroup during 2015. The RPP is based on the Consumer Electronics Energy Forward Initiative, which ended in 2013. The RPP used mid-stream incentives to influence retail stocking practices, ultimately driving manufacturing and standards toward a portfolio of energy-efficient products sold through the retail channel.

In 2015, the NWRCC, which served as the workgroup to the RPP, disbanded due to overlap between the two groups. Idaho Power continued to participate in the advisory workgroup for the RPP.

The 2015 RPP focused on developing a multi-year roadmap, launching an automated data processing solution, and strengthening retailer engagement. NEEA explored expansion of the RPP to new, extra-regional partners and alignment with the National ENERGY STAR retail platform.

RPP continued to offer incentives on televisions, soundbars, dishwashers, and air purifiers. NEEA also commissioned evaluations on the RPP.

In 2015, NEEA formed the Super Efficient Dryers Initiative to support the acceleration of heat pump dryers into the market and Idaho Power participated in the workgroup. The initiative focuses on influencing manufacturer product development and executing strategies to overcome the barriers of this new technology. Barriers include a high incremental cost, limited consumer awareness, and product availability. The initiative offers incentives to reduce the retail price. A second goal of the initiative is lab and field-testing to better understand how heat pump dryers perform in real-world conditions, evaluate consumer preferences, and gather data to support RTF provisional energy savings.

Idaho Power participated in RETAC, the purpose of which is to discuss and provide feedback on various emerging technologies in the region. RETAC met twice in 2015 to review the emerging technology pipeline for BPA, NEEA, and the Northwest Power and Conservation Council (NWPPCC) Seventh Power Plan. Technologies of particular interest to the group include CO₂ heat pumps, high performance manufactured homes, and secondary glazing systems.

In preparation for the launch of the next Residential Building Stock Assessment (RBSA), Idaho Power participated in the Sampling Design and Customer Contact Protocol working groups. Idaho Power attended several meetings and provided feedback on the sample design, recruitment letter, screening survey, and on-site assessment protocol. A pre-test of the study will be conducted in the Boise Metro and Portland Metro areas in February 2016. The main study is set to launch in May 2016.

NEEA Funding

In 2015, Idaho Power began the first year of the 2015 to 2019 *Regional Energy Efficiency Initiative Agreement* with NEEA. Per this agreement, Idaho Power is committed to fund NEEA based on a quarterly estimate of expenses up to the five-year total direct funding amount of \$16.5 million in support of NEEA's implementation of market transformation programs in Idaho Power's service area. Of this amount in 2015, 100 percent was funded through the Idaho and Oregon riders.

In 2015, Idaho Power paid \$2,582,919 to NEEA. The Idaho jurisdictional allocation of the payments was \$2,453,773, while \$129,146 was paid for the Oregon jurisdiction. Other expenses associated with NEEA activities, such as administration and travel, were paid from Idaho and Oregon Riders.

Final NEEA savings for 2015 will be released in June 2016. Preliminary estimates reported by NEEA for 2015 indicate Idaho Power's share of regional market transformation MWh savings for 2015 is 21,900 MWh. These savings are reported in two categories; codes- and standards-related savings of 12,000 MWh and non-codes and standards related savings of 9,900 MWh.

In the *Demand-Side Management 2014 Annual Report*, preliminary funding share estimated savings reported were 20,000 MWh. The revised estimate included in this report for 2014 final funding share NEEA savings is 26,806 MWh. These saving 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 at neea.org.

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OTHER PROGRAMS AND ACTIVITIES

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 Residential Energy Efficiency Education Initiative 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 increase Idaho Power's energy efficiency program participation.

The Residential Energy Efficiency Education Initiative continued to produce semiannual energy efficiency guides in 2015. Idaho Power distributed these guides primarily via insertion in local newspapers and at events across Idaho Power's service area.

Improvements for the *Energy Efficiency Guides* implemented in 2015 include the following:

- The initiative engaged CRs in group meetings to gather suggestions for improvement. CRs suggested topics for future guides based on customer questions and concerns and offered feedback about format and ways to enhance the value of the guide for use during home visits and as handouts at presentations and other uses.
- An amended distribution schedule allows customers to receive guides during the high-use months of January and July rather than the shoulder months of April and October.
- Guide circulation further increased with the addition of a social media promotion.
- In addition to the indexed pdf guides on Idaho Power's website, the program offered a downloadable, printable version.

Sixteen newspapers in Idaho Power's service area inserted the *Summer Energy Efficiency Guide* and delivered it to 237,144 homes the week of July 19, 2015. The guide focused on the energy and water connection and helping customers understand how the two resources are connected. The guide highlighted efficient ways to stay cool; answered questions about smart thermostats; and offered tips for using water efficiently, reducing hot water use, and purchasing hot water heaters. It also contained tips on how to reduce energy use at home while vacationing.

The release of the summer guide received public relations support through numerous communication channels, including an item in Idaho Power's weekly *News Briefs* email to all media in the Idaho Power service area on July 20 and a feature during a monthly live studio energy efficiency segment on KPVI and KTVB-TV on June 30. The November issue of Idaho Power's *Connections* customer newsletter included an image display for the guide.

The company prepared the *Winter Energy Efficiency Guide* in December 2015 for distribution in January 2016, in accordance with the new distribution plan. Although the guide focused on ways to find the truth about energy saving claims, Idaho Power improved the guide for usefulness and appeal to the senior population. Idaho Power is creating a variety of Energy Efficiency guides to increase circulation and applicability to a variety of customer niches, including families, seniors, or specific topics.

In 2015, the company distributed 5,433 additional guides at energy efficiency presentations and events, which continued to reinforce the overall value of these guides. Links to current guides were given prominent positions on Idaho Power's website during the appropriate seasons. Idaho Power made the full selection of energy efficiency guides available for viewing, downloading, and printing via Idaho Power's website.

The Residential Energy Efficiency Education Initiative distributed energy efficiency messages through a variety of other communication methods during 2015. Idaho Power increased customer awareness of energy-saving ideas via continued distribution of the third 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 2015, the program distributed 5,040 English and 1,015 Spanish copies directly to customers. This was accomplished via community events and local libraries; by CRs during in-home visits; by participating contractors in the Home Improvement Program, Energy House Calls program, H&CE Program, and See ya later, refrigerator[®] program; through direct web requests; and in response to inquiries received by Idaho Power's customer service center.

Idaho Power continues to recognize that educated employees are effective advocates for Idaho Power's energy efficiency programs. Idaho Power staff visited each of Idaho Power's geographical regions and the Customer Service Center to meet with CRs and other employees to discuss educational initiatives and answer questions about the company's energy efficiency programs.

The Kill A Watt[™] Meter Program remained active in 2015. 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. The Kill A Watt meters were featured during live television studio news programs on KTVB and KPVI in Idaho Power's monthly energy efficiency segments.

As in previous years, Idaho Power continued to strengthen the energy education partnership with secondary school educators through continued participation on the Idaho Science, Technology, Engineering and Mathematics (iSTEM) Steering Committee. In 2015, 18 teachers completed the four-day, two-credit professional development seminar facilitated by Idaho Power and co-sponsored by Intermountain Gas and the Idaho National Lab.

Idaho Power continued to engage customers in energy efficiency discussions at many community events throughout Idaho Power's service area. In February, Idaho Power participated in the Smart Women, Smart Money conference and educated nearly 2,000 women about the benefits of LED lighting. In March and April, Idaho Power participated in Pocatello's Spring Home Show and the Portneuf Valley Community Environmental Fair—actively promoting wise energy use and participation in energy efficiency programs while distributing over 5,000 LED light bulbs.

In September 2015, Idaho Power participated in the FitOne Expo in Boise, Idaho. The event continued to be important to the initiative due to the size of the audience and because Idaho Power's prior participation confirmed the demographics of attendees aligned with the company's residential energy efficiency target audience. In 2015, Idaho Power staff at the event educated attendees about the benefits of LED lighting technology, distributed LED bulbs, and gathered contact information from customers interested in participating in a clothes drying rack pilot project.

Idaho Power further increased its energy efficiency presence in the community by providing energy efficiency and program information through 93 outreach activities, including events, presentations, trainings, and other activities documented in the company's Outreach Tracking System. In addition,

Idaho Power field staff delivered 204 presentations to local organizations addressing energy efficiency programs and wise energy use. In 2015, Idaho Power's Community Education team provided 124 presentations on *The Power to Make a Difference* to 3,359 students. The CERs and other staff also completed 26 senior citizen presentations on energy efficiency programs and shared information about saving energy to 944 senior citizens in the company's service area. Additionally, Idaho Power's energy efficiency program managers responded with detailed answers to 300 customer questions about energy efficiency and related topics received via Idaho Power's website.

As part of National Energy Awareness Month in October, Idaho Power held its fifth annual student art contest in the Idaho Power service area, bringing energy education into the classroom and inspiring students and families to think more about energy. This year, the contest set a new record with more than 2,100 entries representing all regions. "Ways to Save Energy" was one of the highlighted categories, and both overall and regional winning students and their teachers were recognized.

The Residential Energy Efficiency Education Initiative continued to provide energy efficiency tips in response to media inquiries. In addition to supplying information for various Idaho Power publications, such as the *News Scans* weekly employee newsletter, the *Connections* customer newsletter, and Idaho Power's Facebook page, energy efficiency tips and content was provided for seven monthly KTVB-TV news live studio interview segments and seven monthly KPVI-TV news live studio interview segments.

Idaho Power had previously explored the creation of a high-school kit program, but with the advent of cost-effective LED light bulbs, Idaho Power has since determined that a broader-based residential kit program would be more effective—reaching more customers with fewer resources. The initiative, therefore, prepared an RFP and coordinated the selection of a partner to implement a new direct-to-customer residential kit program early in 2016. When the kit program is implemented, savings and expenses will be reported under Educational Distributions.

The initiative spearheaded an LED distribution effort aimed at getting the newest lighting technology into customer hands along with customer education and answers to their common questions. At events and presentations, company staff distributed over 21,000 LEDs in custom packaging that highlighted the advantages of energy-efficient lighting and encouraged participation in Idaho Power's myAccount online portal. The energy savings resulting from this effort and from the SEEK for the school year 2014 to 2015, are reported in the Educational Distribution Program section of the *Demand-Side Management 2015 Annual Report*.

In 2015, the initiative proposed, researched, and acquired drying racks for a Drying Rack Project. Idaho Power identified an appropriate customer population, created a baseline survey to establish current drying habits, and built an online tool to manage the project's enrollment. The company will implement the project in 2016.

The initiative's 2016 goals are to increase program participation and promote education and energy saving ideas that result in energy-efficient, conservation-oriented behaviors and choices. In addition to producing and distributing educational materials, the initiative will manage the company's new Educational Distribution Program responsible for distributing educational measures that have associated savings. Examples of activities conducted under the Education Distribution Program include LED lighting education, distribution of LED bulbs to customers, the SEEK, and the Drying Rack Project. The new Residential Kit Program proposed for 2016 will also be under the Educational Distribution program.

The initiative will continue to work with the PPG to explore behavioral program opportunities that may include enhancement to kit programs, increased promotion of myAccount, home energy reports, or a pilot program to test other behavioral messages.

Commercial Education

Since 2008, Commercial Education activities have informed and educated commercial customers regarding energy efficiency, increased awareness of and participation in existing commercial energy efficiency and demand response programs, and enhanced customer satisfaction regarding the company's energy efficiency initiatives.

The primary goal is to educate and support trade allies and key stakeholders working in the energy efficiency market by emphasizing building strategic relationships. Additionally, program specialists work closely with Idaho Power CRs assigned to commercial market segments to capitalize on their established relationships with customers.

Commercial Education includes the distribution of informational materials to trade allies and other market players who, in turn, support and promote Idaho Power's energy efficiency programs. CRs conduct site visits to educate customers on energy-saving opportunities at their business and meet with design professionals.

In 2015, Idaho Power carried out its plan to capitalize on effective customer projects by developing three 2015 success stories highlighting customers' energy efficiency projects for posting on Idaho Power's website. Copies of two success stories posted on the website in 2015 are provided in *Supplement 2: Evaluation*. The third completed 2015 success story is scheduled to post in 2016.

Other educational/outreach activities included an August and a March *ENERGY@WORK* newsletter created and mailed to all commercial customers. These newsletters contained business-specific articles of interest, with an emphasis on energy efficiency. Idaho Power's customer newsletter, *Connections*, is distributed monthly in customers' bills. In 2015, two editions were devoted exclusively to energy efficiency content.

Raising the knowledge level of commercial customers in the wise use of energy in their daily operations is important to the continued success of Idaho Power's commercial energy efficiency programs. Educating commercial customers requires working with and supporting multiple stakeholders and organizations. Examples of key stakeholders include the IDL, BOMA, US Green Building Council, ASHRAE, IBOA, and the IFMA Northern Rockies Chapter. Through funding provided by Idaho Power, the IDL performs several tasks aimed at increasing the energy efficiency knowledge of architects, engineers, trade allies, and customers. Specific activities include sponsoring a BSUG, conducting Lunch & Learn sessions held at various design and engineering firms, and offering a TLL. The TLL gives customers access to equipment that enables them to measure and monitor energy consumption on various systems within their operation.

In 2015, Idaho Power supported two organizations that provide professional accreditation to their members. The IBOA offers Building Operator Certification to train building operators in the energy efficiency operation of their facilities. Certification includes multiple trainings on various topics. The IFMA teaches four modules of its Facility Management Professional (FMP) credential. The FMP training equips facility managers with the knowledge and skills to promote, justify, and implement sustainable and energy efficiency projects and programs within their facilities.

Plans for 2016 include 1) working with Idaho Power marketing specialists to increase customer awareness of the company's energy efficiency programs and their specific offerings; 2) coordinating training opportunities for CRs and trade allies to increase their energy expertise; 3) continuing to support key stakeholders that train, educate, and support the advancement of energy efficiency practices; 4) conducting outreach and education activities through the IDL; 5) supporting customers via facility walk-throughs, including energy audits; and 6) implementing an electronic quarterly newsletter for large commercial and industrial customers.

Regional Technical Forum

The BPA and the NWPCC established the RTF in 1999. Since 2004, Idaho Power has supported the RTF by providing annual financial support, regularly attending monthly meetings, and participating on various sub-committees.

The forum's purpose is to advise the BPA; the NWPCC; the region's utilities; and organizations, including NEEA and the Energy Trust of Oregon; on technical matters related to energy efficiency. Activities include the development of standardized protocols for verifying and evaluating energy savings and tracking conservation and resource goals. Additionally, the RTF provides feedback and suggestions for improving the effectiveness of regional energy efficiency programs. The RTF also recommends a list of eligible energy efficiency measures and the estimated savings associated with those measures. Idaho Power uses the information provided by the RTF when conducting research and analysis on new and current measures. The RTF meets monthly to review and provide comments on analyses and other materials prepared by the NWPCC, BPA staff, and RTF contractors. Idaho Power uses the savings estimates and calculations provided by the RTF when applicable to the Idaho climate zones and load characteristics. In 2015, Idaho Power staff participated in all of the RTF's meetings, the Implementers Group subcommittee, and the RTF Policy Advisory Committee.

In 2015, the RTF's finalized quality control reviews on several measures and their associated support workbooks, specifically, for residential weatherization-single family and residential HVAC measures. The RTF also updated savings and assumptions for several measures including residential lighting, refrigerator/freezer decommissioning, and residential clothes washers. More information regarding changes impacting Idaho Power's current measures are in each program's Cost-Effectiveness section.

Throughout 2015, Idaho Power analysts participated in the RTF's Implementers Group subcommittee monthly meetings. The meetings provide a summary of the recent RTF meetings and actions, and alert implementers of any upcoming RTF decision that may affect programs. The group also informs the RTF if there is any measure specification that might limit feasibility.

Idaho Power provided home energy audit results and pre- and post-weatherization billing data for over 150 manufactured homes weatherized as part of Idaho Power's WAQC and Weatherization Solutions for Eligible Customers programs. The data supported a request by RTF members to validate the existing manufactured home calibration using other data sets available in the region. The resulting analysis using Idaho Power data validated the previous energy model calibration and the RTF appreciated the provided data.

At the end of 2015, an Idaho Power analyst was selected to be a voting member of the RTF. An Idaho Power representative will serve on the RTF for a three-year term, effective January 2016.

University of Idaho Integrated Design Lab

Idaho Power is a founding supporter of the IDL. The IDL is dedicated to the development of high performance energy-efficient buildings in the Intermountain West. Idaho Power has worked with the lab since its inception in 2004 as part of efforts to educate customers about the value of energy efficiency to businesses, as well as to the businesses' customers. In 2015, Idaho Power entered into an agreement with the IDL to perform the following tasks.

Building Metrics Labeling

The goal of this task was to expand on the task that began in 2012 with the development of the Building Metrics Labeling (BML) sheet, a graphical display of four building metrics on a single sheet. The metrics displayed are Energy Use Intensity, ENERGY STAR[®] score, Walkability, and Space Daylit Area. The purpose of the BML sheet is to increase awareness of building energy use and promote energy efficiency during the sale or lease of commercial properties. The final version of the BML tool became available for public use in early 2014.

The IDL continued support, promotion, and improvement of the sheet in 2015. The tool was discussed and/or flyers were distributed at twenty Lunch & Learn presentations to architecture or engineering firms and organizations, multiple Central Addition Planning meetings hosted by the US Green Building Council (USGBC), six BSUG events, a presentation to the mayor and Planning and Development Services staff at the City of Boise, and multiple presentations to real estate brokers and property managers. The 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 2015, the IDL scheduled 20 technical training lunches in Boise, Pocatello, Ketchum, and Idaho Falls. The trainings were coordinated directly with architecture and engineering firms and organizations and were attended by a total of 321 architects, engineers, interior designers, project managers, and others.

Sixteen sessions were offered in Boise, one in Pocatello, two in Ketchum, and one in Idaho Falls. The topics of the lunch sessions (and quantity of each) were: *Deep Retrofits on Historic Projects* (1), *IECC for Industrial Buildings* (1), *Radiant System Design Considerations* (1), *Daylight Sensing Electric Lighting Controls* (2), *Architectural HVAC Integration Strategies* (2), *Integrated Design Case Studies* (2), *Daylight in Buildings: Schematic Design* (1), *Daylight in Buildings: Getting the Details Right* (3), *Benchmarking and Energy Goal Setting* (2), *Adding to Zero: Chemeketa Community College's Path to Net Zero* (1), *Occupant Customer Experience* (1), *Operations and Maintenance Strategies* (1), *Boise Green Building Code and Idaho Power Efficiency Programs* (1), and *The Importance of Building Performance Modeling for Architects* (1). The report is located in the IDL section of *Supplement 2: Evaluation*.

Building Simulation Users Group

The goal of this task was to facilitate the Idaho Building Simulation Users Group (BSUG), which is designed to improve the energy efficiency-related simulation skills of local design and engineering professionals.

In 2015, 7 monthly BSUG sessions were hosted by the IDL. The sessions were made available remotely and were attended by 86 professionals in person and 230 professionals remotely. Evaluation forms were completed by attendees for each session. On a scale of 1 to 5, with 5 being excellent and 1 being poor, averaging results from all seven questions, the average session rating was 4.1 for 2015.

Finally, each presentation was archived on the BSUG 2.0 website along with general BSUG-related content. The BSUG 2.0 site logged 1,809 page views with 651 specific to Idaho users in 2015. The report is located in the IDL section of *Supplement 2: Evaluation*.

Foundational Services

The goal of this task was to provide energy efficiency technical assistance and project-based training to building industry professionals and customers. When the IDL receives requests for their involvement in building projects, the 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 Simulation Quality Assurance task combined into the Foundational Services task in 2015. The goal of this task was to provide energy simulation QA by conducting pre- and post-measurements and verifications to compare modeled savings to realized savings on selected projects. The IDL accomplished this by reviewing energy simulation techniques used to estimate facility consumption, conducting on-site measurements used to calibrate and validate the energy model, performing energy management system data extraction, analyzing actual bill and weather data, and creating a report detailing findings and lessons learned from each project. In the past, the Simulation Quality Assurance projects often overlapped into the Foundational Services task when the scope of work was larger than the Simulation Quality Assurance task. Idaho Power and IDL determined the additional task was not warranted because the services can be covered in Foundational Services.

In 2015, the IDL provided technical assistance on a total of 55 projects in the Idaho Power service area. There were 47 Phase I projects, two Phase II projects, and one Phase III project. An additional five projects currently in early stages, and the full scope of work is yet to be determined. Overall, 54 percent of the projects were on new buildings and 46 percent were on existing buildings. The report is located in the IDL section of *Supplement 2: Evaluation*.

Building Efficiency Verification

The goal of this task was to continue random installation verification of over 10 percent of Building Efficiency applications provided incentives. This consisted of conducting a full review of documentation and complete on-site inspections to validate whether noted systems and components had been installed. The purpose of this verification was to confirm program guidelines and requirements were adequately facilitating participants to provide accurate and precise information with regard to energy efficiency measure installations.

This task also included the review of all daylight photo-control incentives to verify site conditions and improve the quality of design and installation.

The IDL completed on-site field verifications for the Building Efficiency program as summarized in the Building Efficiency program's Customer Satisfaction and Evaluations section presented earlier in this

Demand-Side Management 2015 Annual Report. The report is located in the IDL section of *Supplement 2: Evaluation*.

Tool Lending Library

The goal of this task was to operate and maintain a measurement equipment TLL, including a web-based equipment tool loan-tracking system, and provide technical training on how each tool is intended to be used.

The inventory of the TLL now consists of over 900 individual pieces of equipment. The tools are available for customers, engineers, architects, and contractors in Idaho Power's service area to borrow at no cost to aid in the evaluation of energy efficiency projects and equipment they are considering.

There were 56 tool loan requests in 2015, which included a total of 317 tools loaned. The tools were loaned to 31 unique users, including engineering firms, equipment representatives, educational institutions, industrial plants, and office/commercial facilities. The report is located in the IDL section of *Supplement 2: Evaluation*.

Heat Pump Calculator/Climate Design Tools

The goal of this task was to develop an Excel-based heat pump analysis tool to calculate energy usage and savings based on site-specific variables for commercial buildings. IDL identified a lack of sophisticated heat pump energy-use calculators available with the capability of comparing the energy use of heat pumps in commercial buildings against other technologies in a quick, simple fashion. The tool was initially developed in 2013 and underwent user testing in 2014. In 2015, further testing was done by comparing results from the calculator to results obtained from myriad eQuest energy simulations. Feedback from validation testing was integrated into the current version of the tool, including an improved user interface and the ability to integrate TMY3 weather files for locations where that data is available. A few years ago, the IDL completed a set of Climate Design Tools intended to inform sustainable design and calculate the impacts of five innovative types of systems: earth tubes, passive heating, cross ventilation, stack ventilation, and night flush ventilation/thermal mass. As part of the 2015 scope for this task, the IDL completed the initial integration of these five tools into the Heat Pump Calculator. This unification produced a single platform life-cycle analysis tool for several energy efficiency measures not currently well supported with other tools in the industry. The report for this task is located in the IDL section of *Supplement 2: Evaluation*.

Residential Heat Pump Calculator

In 2015, the IDL enhanced the 2014 computer-based residential energy calculator. This tool calculates energy consumption for residential houses. It has the ability to accept various descriptive user inputs—for example, attic insulation and window performance in an existing house. Users can compare the energy consumption of a house with various types of heating and cooling systems. Idaho Power and the IDL will evaluate the tool in 2016 to determine needed enhancements.

Residential WHF

The IDL released *The 2015 Task #9: Technical Assistance—Whole House Fan Report* (#1408-031-01) October 14, 2015. The report is located in the IDL section of *Supplement 2: Evaluation*.

In 2015, the IDL investigated WHFs at the request of Idaho Power. These high-volume, ceiling-mounted exhaust fans are used to displace mechanical cooling systems. Typical fan blade diameters range

generally from 24 to 42 inches. Depending on the size installed, the WHFs' exhausted air ranges from 3,000 to 10,000 cubic feet per minute (CFM). WHFs are mounted in the ceiling and move exhaust air from the conditioned space directly into the attic while drawing cooler outdoor air into the home through open windows. WHFs are a viable option where cooler dry air is available in evening hours during the cooling season.

Commercial Real Estate Support

This task's goal was to provide technical support to the commercial real estate market. IDL worked with Greensteps in 2015 to continue support of the Kilowatt Crackdown participants. IDL's role was to audit buildings, provide audit reports, and provide technical support at follow-up meetings. IDL also worked with building staff to specify energy efficiency projects and ENERGY STAR certification to eligible buildings.

IBOA and IFMA Organization/Chapter Support

The goal of this task was to provide technical support to the local IBOA and IFMA organizations to help them succeed and meet their goals.

The current contract between Idaho Power and the IDL will extend into 2016 for Foundational Services and Commercial Real Estate Support. In 2016, the IDL will continue or expand work on the BML sheets, Lunch & Learn sessions, BSUG, Foundational Services, Building Efficiency Verification, TLL, and Heat Pump Calculator. IDL will also evaluate new tasks in 2016 for potential addition to the contract.

Local Energy Efficiency Funds

The purpose of Local Energy Efficiency Funds (LEEF) is to provide modest funding for short-term projects and activities that do not fit within other categories of energy efficiency programs but still provide energy savings or a defined benefit to the promotion of energy-efficient behaviors or activities. Idaho Power received two applications for LEEF in 2015.

A local insulated stone manufacturer submitted an application regarding energy efficient upgrades to be included in a new facility they were renovating for their expanded operations. Idaho Power personnel met with the company at their Meridian office and discussed their energy efficiency potential. One of the primary measures they discussed was energy savings resulting from increased insulation values associated with the insulated stone product they manufacture. Data was requested to explore cost-effectiveness; however, sufficient data was unavailable to complete the analysis. It was found however, that most measures they were considering were available for incentive through existing commercial incentives programs, and they were directed to those resources.

The second project was submitted by a homeowner regarding potential lighting upgrades and more energy-efficient behavior. Brief follow-up revealed the energy-efficient light bulb replacement project was seen as standard practice and not appropriate for LEEF. The applicant was directed to residential energy efficiency resources found on Idaho Power's web-site.

Building-Code Improvement Activity

Since 2005, the State of Idaho has been on a cycle of adopting a state-specific version of the IECC. The Idaho Building Code Board convened another Energy Code Collaborative in late 2015 in an effort to address implementation of the new series of building-related codes.

The Idaho Building Code Board requested the collaborative review the 2015 codes and suggest recommendations to the board regarding adoption of codes. The first meeting occurred on December 2, 2015.

Idaho Power participated and offered support in those collaborative meetings, which included members of the building industry, local building officials, code development officials, and other interested stakeholders. The Energy Code Collaborative is an ongoing collaborative in which Idaho Power participates. Additional meetings are scheduled in 2016.

Idaho Power's Internal Energy Efficiency Commitment

Idaho Power continued to upgrade the company's substation buildings across the service area, replacing old black built-up roofs with white metal roofs for reflection purposes. CHQ projects continued in 2015. The company remodeled the sixth and seventh floors of the CHQ, and exchanged the old T12 parabolic lighting fixtures with T8 lighting. Remodels continued to incorporate energy efficiency items, such as lower partitions, lighting retrofits, and lighting controls. In 2016, Idaho Power will continue with the eighth floor CHQ remodel. In 2017, the remodeling projects in Idaho Power's downtown building will finish with the completion of the ninth floor of the CHQ.

Through the Sustainability Initiative Project implemented in 2012, Idaho Power has helped fund and execute sustainable, employee-driven initiatives aimed at increasing efficiencies and lowering company costs. Each year, the Sustainability team puts out a call for projects. Qualifying initiatives must demonstrate a financial benefit to the company or an environmental or social gain, or preferably both. Approved projects are given financial assistance through "incubation funding," and the Sustainability team provides consulting services—if necessary—to speed implementation. A new document, available in print and online, catalogues three years of sustainability initiatives, with a brief description of each. From 2012's Greenleaf wet meadows project to last year's rollout of electric vehicles and charging stations, all 26 initiatives are listed at idahopower.com/pdfs/AboutUs/sustainability/Sustain_Projects.pdf.

As in past years, employee-suggested sustainability initiative projects yielded annual energy savings. Lighting in the Emmett Operations Center garage was changed from mercury vapor to T8 lamps, occupancy sensors were installed in the records reference stacks at the Records Center, and building modifications were made to the Investment Recovery facility, resulting in heating and electricity savings.

A major sustainability initiative was the purchase of two Chevy Volt hybrid plug-in electric vehicles (EV) for the Twin Falls and Pocatello service areas and the establishment of an employee workplace EV charging center at CHQ. Idaho Power installed a variety of models of EV charging stations to promote awareness, use, and information dissemination about EVs. Employees now have the opportunity to park and charge their EV while at work. In addition to adding more EVs to the Idaho Power fleet, employee use of EVs will further promote the financial and environmental benefits of EVs.

With an estimated 300,000 kWh saved annually at the Boise Operations Center with the most recent energy efficiency measures, in 2016 Idaho Power will redesign the HVAC delivery system for the Maintenance and Electrical Shops building with construction following in 2017. Because of the dated system and equipment, Idaho Power estimates saving a minimum 300,000 kWh in the coming years.

Idaho Power's internal energy efficiency projects and initiatives are funded by non-rider funds.

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REGULATORY OVERVIEW

Idaho Power believes there are three essential components of an effective regulatory model for DSM: 1) the timely recovery of DSM program costs, 2) the removal of financial disincentives, and 3) the availability of financial incentives. By working with its stakeholders and regulators through negotiations and filings, Idaho Power continues to seek to move DSM regulatory treatment toward achieving all of these goals.

Timely Recovery of DSM Program Costs: Energy Efficiency Rider and Prudence Determination of Expenditures

Since 2002, Idaho Power has recovered most of its DSM program costs through the Rider with the intended result of providing a more timely recovery of DSM costs. In addition, since January 1, 2012, funding of Idaho demand response program incentives is included in base rates and tracked in the annual PCA mechanism.

Annual DSM Expense Review Filing and Order No. 33365

On March 13, 2015, Idaho Power filed Case No. IPC-E-15-06 with the IPUC requesting an order finding the company had prudently incurred \$33,495,385 in DSM expenses in 2014, including \$25,554,688 in Rider expenses and \$7,940,697 in demand response program incentive expenses. The filing included three reports: Demand-Side Management 2014 Annual Report, *Supplement 1: Cost-Effectiveness*, and *Supplement 2: Evaluation*. Due to previous IPUC decisions in Order Nos. 32667, 32690, and 32953 to decline Idaho Power's request to deem prudent the increases in the company's Rider-funded labor-related expenses for 2011 and 2012, Idaho Power did not request a prudence determination for labor related expenses of \$338,707 in the 2014 filing. The 2014 labor-related expenses of \$338,707 bring the cumulative balance of increases in Rider-funded labor-related expenses to \$871,551 through 2014. In Order No. 33365, dated August 28, 2015, the IPUC deemed \$33,495,385 as prudently incurred.

Energy Efficiency Rider-Funds Transfer

On April 15, 2015, Idaho Power filed the annual PCA Case No. IPC-E-15-14 with the IPUC. As part of that case, the company proposed that the commission approve a transfer of \$3,970,036 from the Idaho Rider to customers as a credit, or reduction, in the 2015/2016 PCA on customers' bills. This adjustment is needed to maintain the revenue neutrality associated with the June 2014 update to the normalized level of net power supply expense included in base rates approved by Order No. 33000. In Order No. 33306, the commission approved the transfer.

Removal of Financial Disincentives: Fixed-Cost Adjustment

To address the removal of financial disincentives, Idaho Power has in place a fixed-cost adjustment (FCA) mechanism in Idaho. Under the FCA, rates for Idaho residential and small general service customers are adjusted annually up or down to recover or refund the difference between the fixed costs authorized by the IPUC in the most recent general rate case and the fixed costs Idaho Power actually received the previous year through actual energy sales. This mechanism removes the financial disincentive that exists when Idaho Power promotes energy efficiency programs designed to reduce customer usage. The FCA addresses that, for residential and small general service customers, a large percentage of fixed costs are recovered through their volumetric energy charges.

On May 6, 2015, the IPUC issued Order No. 33295 approving a settlement stipulation that changed the calculation of the FCA. In compliance with the order, beginning in 2015, the calculation of the FCA replaces weather-normalized sales with actual sales.

On May 19, 2015, the IPUC issued Order No. 33302 approving the company's request to implement FCA rates beginning June 1, 2015, for the 2014 fixed-cost deferrals. The overall rate adjustment was a 0.35 percent increase for residential and small general-service customers to collect a combined \$16.9 million. This adjustment was an increase of \$2 million from the previous year's FCA. Residential customers pay an FCA of 0.3258 cents per kWh, while small general service customers pay an FCA of 0.4099 cents per kWh. The rate will be in place until May 31, 2016.

Promotion of Energy Efficiency through Electricity Rate Design

Idaho Power believes rates offered to customers should reflect their cost of service to provide cost-based price signals and encourage the wise and efficient use of energy.

The above-mentioned FCA settlement stipulation also stated:

Absent the FCA, the Parties agree that current rate design causes a financial disincentive for the Company to pursue all cost-effective demand-side management. Consequently, the Parties agree to consider modified rate design for residential and small general service customers. This may include, but is not limited to, reduced energy charges, increased monthly service charges, and the introduction of demand charges for these rate classes.

Idaho Power is committed to working with its stakeholders to help it determine how these changes to rate design for the company's residential and small general service customer classes might be best structured and implemented.

Since 2012, Idaho Power has offered a Time-of-Day (TOD) Pilot pricing plan to residential customers in Idaho. The overall goal of this TOD pricing plan is to use the AMI system to offer customers a choice of pricing plans while providing them with tools to manage their energy usage, provide the company with the opportunity to further study the effects of a time-variant rate on customers' usage, and help shape the company's future communication efforts. The plan provides participants the opportunity to shift their usage from higher-priced, on-peak time periods to lower-priced, off-peak time periods and possibly lower their bills. As of the end of 2015, over 1,500 Idaho customers were TOD plan participants. A description of this plan is at Idaho Power's website (idahopower.com/TOD).

APPENDICES

This report includes five appendices. Appendix 1 contains financial information for 2015, showing the beginning balance, ending balance, and the expenditures for the Idaho and Oregon Riders and NEEA payments and credits. Appendix 2 also contains financial information showing expenses by funding source for each of Idaho Power's energy efficiency and demand response programs or activities. Appendix 3 shows participation, UC, TRC, energy and demand savings, measure life, and levelized costs for Idaho Power's current energy efficiency programs and activities for 2015. Appendix 4 shows similar data as Appendix 3 but also includes data for past years' program performance and B/C ratios from the UC and TRC perspectives for active programs. Appendix 5 contains program savings and costs separated into Idaho Power's Idaho and Oregon jurisdictions and by funding source. In these appendices, the data has been rounded to the nearest whole unit, which may result in minor rounding differences.

Additional information is contained in the supplements provided in separate documents in two formats. *Supplement 1: Cost-Effectiveness* contains detailed cost-effectiveness information by program and energy-savings measure. Provided in Supplement 1 are the B/C ratios from the UC, TRC, RIM, and PCT perspectives. The *2015 DSM Detailed Expenses* by program table reports expenses by funding source and separates the company's DSM expenses by expense type, incentive expenses, labor/administration, materials, other expenses, and purchased services. *Supplement 2: Evaluation* contains copies of Idaho Power's third-party evaluations and reports. A CD is attached in Supplement 2 and contains copies of NEEA Market Effects Evaluations. A searchable, linked table with the title, study manager, evaluation type, and other information are included with each supplement.

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Appendix 1. Idaho Rider, Oregon Rider, and NEEA payment amounts (January–December 2015)

| Idaho Energy Efficiency Rider ^a | |
|---|-----------------------|
| 2015 Beginning Balance..... | \$ (782,231) |
| 2015 Funding plus Accrued Interest as of 12-31-15 | 39,800,889 |
| Total 2015 Funds | 39,018,658 |
| 2015 Expenses as of 12-31-15..... | (28,494,548) |
| Rider Transfer to PCA (IPUC Order 33306) | (3,970,036) |
| Ending Balance as of 12-31-2015 | \$ 6,554,074 |
| Oregon Energy Efficiency Rider | |
| 2015 Beginning Balance..... | \$ (3,907,536) |
| 2015 Funding plus Accrued Interest as of 12-31-15 | 1,149,169 |
| Total 2015 Funds | (2,758,367) |
| 2015 Expenses as of 12-31-15..... | (1,724,118) |
| Ending Balance as of 12-31-2015 | \$ (4,482,485) |
| NEEA Payments | |
| 2015 NEEA Payments as of 12-31-2015 | \$ 2,582,919 |
| Total | \$ 2,582,919 |

^a Liability accounts

Appendix 2. 2015 DSM Expenses by funding source (dollars)

| Sector/Program | Idaho Rider | Oregon Rider | Non-Rider Funds | Total |
|--|----------------------|---------------------|---------------------|----------------------|
| Energy Efficiency/Demand Response | | | | |
| Residential | | | | |
| A/C Cool Credit | \$ 659,471 | \$ 45,825 | \$ 443,639 | \$ 1,148,935 |
| Easy Savings | 0 | 0 | 127,477 | 127,477 |
| Educational Distributions | 432,185 | 0 | 0 | 432,185 |
| Energy Efficient Lighting | 1,997,292 | 60,800 | 5,291 | 2,063,383 |
| Energy House Calls | 194,939 | 15,057 | 4,108 | 214,103 |
| ENERGY STAR® Homes Northwest | 646,991 | 2,692 | 3,990 | 653,674 |
| Heating & Cooling Efficiency Program/DHP Pilot | 583,663 | 25,186 | 17,520 | 626,369 |
| Home Energy Audit | 192,873 | 0 | 9,084 | 201,957 |
| Home Improvement Program | 259,898 | 0 | 12,611 | 272,509 |
| Oregon Residential Weatherization | 0 | 5,341 | 467 | 5,808 |
| Rebate Advantage | 80,243 | 4,351 | 843 | 85,438 |
| See ya later, refrigerator® | 212,674 | 11,497 | 3,007 | 227,179 |
| Shade Tree Program | 99,672 | (66) | 5,786 | 105,392 |
| Simple Steps, Smart Savings™/Home Products Program | 130,575 | 6,676 | 1,845 | 139,096 |
| Weatherization Assistance for Qualified Customers | 0 | 0 | 1,315,032 | 1,315,032 |
| Weatherization Solutions for Eligible Customers | 1,204,147 | 0 | 39,122 | 1,243,269 |
| Commercial/Industrial | | | | |
| Building Efficiency | 2,128,309 | 16,075 | 17,617 | 2,162,001 |
| Custom Efficiency | 8,345,435 | 604,636 | 62,558 | 9,012,628 |
| Easy Upgrades | 4,155,406 | 177,713 | 17,746 | 4,350,865 |
| Flex Peak Program | 86,445 | 219,654 | 286,773 | 592,872 |
| Oregon Commercial Audit | 0 | 4,251 | 0 | 4,251 |
| Irrigation | | | | |
| Irrigation Efficiency Rewards | 1,714,399 | 61,295 | 60,018 | 1,835,711 |
| Irrigation Peak Rewards | 1,018,139 | 222,614 | 6,018,079 | 7,258,831 |
| Energy Efficiency/Demand Response Total | \$ 24,142,755 | \$ 1,483,597 | \$ 8,452,611 | \$ 34,078,964 |
| Market Transformation | | | | |
| NEEA | 2,453,773 | 129,146 | 0 | 2,582,919 |
| Market Transformation Total | \$ 2,453,773 | \$ 129,146 | \$ 0 | \$ 2,582,919 |
| Other Programs and Activities | | | | |
| Residential | | | | |
| Residential Energy Efficiency Education Initiative | 127,817 | 7,391 | 14,695 | 149,903 |
| Commercial/Industrial | | | | |
| Commercial Education | 61,755 | 3,262 | 232 | 65,250 |
| Other | | | | |
| Energy Efficient Direct Program Overhead | 231,713 | 12,967 | 28,179 | 272,858 |
| Other Programs and Activities Total | \$ 421,285 | \$ 23,620 | \$ 43,105 | \$ 488,011 |
| Indirect Program Expenses | | | | |
| Commercial/Industrial Energy Efficient Overhead | 141,066 | 11,387 | 66,558 | 219,012 |
| Energy Efficient Accounting & Analysis | 710,564 | 41,196 | 224,299 | 976,059 |
| Energy Efficiency Advisory Group | 24,976 | 1,360 | 857 | 27,193 |
| Residential Energy Efficient Overhead | 584,299 | 33,036 | 34,839 | 652,174 |
| Special Accounting Entries | 15,830 | 775 | 0 | 16,605 |
| Indirect Program Expenses Total | \$ 1,476,735 | \$ 87,755 | \$ 326,553 | \$ 1,891,042 |
| Grand Total | \$ 28,494,548 | \$ 1,724,118 | \$ 8,822,269 | \$ 39,040,935 |

Appendix 3. 2015 DSM program activity

| Program | Participants | Total Costs | | Savings | | Measure Life (Years) | Nominal Levelized Costs ^a | | |
|--|------------------------------|----------------------|-----------------------|---------------------|-------------------------------|----------------------|--------------------------------------|-------------------------|-----|
| | | Utility ^b | Resource ^c | Annual Energy (kWh) | Peak Demand ^d (MW) | | Utility (\$/kWh) | Total Resource (\$/kWh) | |
| Demand Response | | | | | | | | | |
| A/C Cool Credit ¹ | 29,000 homes | \$ 1,148,935 | \$ 1,148,935 | n/a | 36 | n/a | n/a | n/a | n/a |
| Flex Peak Program ¹ | 72 sites | 592,872 | 592,872 | n/a | 26 | n/a | n/a | n/a | n/a |
| Irrigation Peak Rewards ¹ | 2,259 service points | 7,258,831 | 7,258,831 | n/a | 305 | n/a | n/a | n/a | n/a |
| Total | | \$ 9,000,638 | \$ 9,000,638 | n/a | 367 | | | | |
| Energy Efficiency | | | | | | | | | |
| Residential | | | | | | | | | |
| Easy Savings | 2,068 kits | \$ 127,477 | \$127,477 | 624,536 | | 10 | \$ 0.021 | \$ 0.021 | |
| Educational Distributions | 28,197 kits/bulbs | 432,185 | 432,185 | 1,669,495 | | 10 | 0.026 | 0.026 | |
| Energy Efficient Lighting | 1,343,255 bulbs | 2,063,383 | 4,428,676 | 15,876,117 | | 10 | 0.013 | 0.028 | |
| Energy House Calls | 362 homes | 214,103 | 214,103 | 754,646 | | 18 | 0.020 | 0.020 | |
| ENERGY STAR [®] Homes Northwest | 598 homes | 653,674 | 1,412,126 | 773,812 | | 36 | 0.046 | 0.099 | |
| ENERGY STAR [®] Homes Northwest (gas fuel) ² | 69 homes | | | 46,872 | | | | | |
| Heating & Cooling Efficiency Program/DHP Pilot | 427 projects | 626,369 | 2,064,055 | 1,502,172 | | 20 | 0.028 | 0.092 | |
| Home Energy Audit ³ | 351 audits | 201,957 | 236,706 | 136,002 | | 10 | 0.151 | 0.170 | |
| Home Improvement Program | 408 projects | 272,509 | 893,731 | 303,580 | | 45 | 0.046 | 0.152 | |
| Oregon Residential Weatherization | 19 homes | 5,808 | 10,388 | 11,910 | | 30 | 0.028 | 0.050 | |
| Rebate Advantage | 58 homes | 85,438 | 117,322 | 358,683 | | 25 | 0.014 | 0.020 | |
| See ya later, refrigerator [®] | 1,630 refrigerators/freezers | 227,179 | 227,179 | 720,208 | | 6 | 0.048 | 0.048 | |
| Simple Steps, Smart Savings [™] /Home Products Program | 9,343 appliances/showerheads | 139,096 | 408,032 | 770,822 | | 10 | 0.018 | 0.054 | |
| Weatherization Assistance for Qualified Customers | 243 homes/non-profits | 1,315,032 | 2,119,801 | 550,021 | | 25 | 0.145 | 0.235 | |
| Weatherization Solutions for Eligible Customers | 171 homes | 1,243,269 | 1,243,269 | 432,958 | | 25 | 0.175 | 0.175 | |
| Sector Total | | \$ 7,607,478 | \$13,935,050 | 24,531,834 | | 12 | \$ 0.028 | \$ 0.052 | |
| Commercial | | | | | | | | | |
| Building Efficiency | 81 projects | 2,162,001 | 6,293,071 | 23,232,017 | | 12 | 0.008 | 0.024 | |
| Custom Efficiency ³ | 160 projects | 9,012,628 | 20,533,742 | 55,247,192 | | 11 | 0.016 | 0.035 | |
| Easy Upgrades | 1,222 projects | 4,350,865 | 7,604,200 | 23,594,701 | | 12 | 0.017 | 0.029 | |
| Sector Total | | \$ 15,525,494 | \$ 34,431,013 | 102,073,910 | | 11 | \$ 0.014 | \$ 0.031 | |
| Irrigation | | | | | | | | | |
| Irrigation Efficiency Rewards ⁴ | 902 projects | 1,835,711 | 9,393,842 | 14,027,411 | | 8 | 0.016 | 0.085 | |
| Sector Total | | \$ 1,835,711 | \$ 9,393,842 | 14,027,411 | | 8 | \$ 0.016 | \$ 0.085 | |
| Energy Efficiency Portfolio Total | | \$ 24,968,682 | \$ 58,305,905 | 140,633,155 | | 11 | \$ 0.017 | \$ 0.039 | |

Appendix 3. 2015 DSM program activity (continued)

| Program | Participants | Total Costs | | Savings | | Measure Life (Years) | Nominal Levelized Costs ^a | |
|--|--------------|----------------------|-----------------------|---------------------|-------------------------------|----------------------|--------------------------------------|-------------------------|
| | | Utility ^b | Resource ^c | Annual Energy (kWh) | Peak Demand ^d (MW) | | Utility (\$/kWh) | Total Resource (\$/kWh) |
| Market Transformation | | | | | | | | |
| Northwest Energy Efficiency Alliance ⁵ | | \$ 2,582,919 | \$ 2,582,919 | 21,900,000 | | | | |
| Other Programs and Activities | | | | | | | | |
| Residential | | | | | | | | |
| Residential Energy Efficiency Education Initiative | | 149,903 | 149,903 | | | | | |
| Shade Tree Project | 1,925 trees | 105,392 | 105,392 | | | | | |
| Commercial | | | | | | | | |
| Commercial Education Initiative | | 65,250 | 65,250 | | | | | |
| Oregon Commercial Audits | 17 audits | 4,251 | 4,251 | | | | | |
| Other | | | | | | | | |
| Energy Efficiency Direct Program Overhead | | 272,858 | 272,858 | | | | | |
| Total Program Direct Expense | | \$ 37,149,894 | \$ 70,487,117 | 162,533,155 | 367 | | | |
| Indirect Program Expenses | | \$ 1,891,042 | | | | | | |
| Total DSM Expense | | \$ 39,040,935 | | | | | | |

^a Levelized Costs are based on financial inputs from Idaho Power's 2013 IRP, and calculations include line-loss adjusted energy savings.

^b The Total Utility Cost is the cost incurred by Idaho Power to implement and manage a DSM program.

^c 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.

^d Demand response program reductions are reported with 9.7-percent peak loss assumptions.

¹ Peak demand represents the peak performance of the program.

² Savings claimed for Idaho gas-heated certified homes that were not provided a direct incentive payment by Idaho Power.

³ Custom Efficiency savings includes 19 Green Motors participants totaling 61,050 kWh of annual savings, not counted in project totals.

⁴ Irrigation Efficiency includes 32 Green Motors participants totaling 90,074 kWh of annual savings, not counted in project totals.

⁵ Savings are preliminary estimates provided by NEEA. Final savings for 2015 will be provided by NEEA in May 2016.

Appendix 4. Historical DSM expense and performance, 2002–2015

| Program/Year | Participants | Total Costs | | Savings and Demand Reductions | | | Measure Life (Years) | Levitized Costs ^a | | Program Life Benefit/Cost Ratios ^b | |
|-------------------------|--------------|---------------------------|----------------------------|-------------------------------|-----------------------------------|-------------------------------|----------------------|------------------------------|-------------------------|---|----------------|
| | | Utility Cost ^c | Resource Cost ^d | Annual Energy (kWh) | Average Energy ^e (aMW) | Peak Demand ^f (MW) | | Total Utility (\$/kWh) | Total Resource (\$/kWh) | Utility | Total Resource |
| Demand Response | | | | | | | | | | | |
| A/C Cool Credit | | | | | | | | | | | |
| 2003 | 204 | \$ 275,645 | \$ 275,645 | | | 0.0 | | | | | |
| 2004 | 420 | 287,253 | 287,253 | | | 0.5 | | | | | |
| 2005 | 2,369 | 754,062 | 754,062 | | | 3 | | | | | |
| 2006 | 5,369 | 1,235,476 | 1,235,476 | | | 6 | | | | | |
| 2007 | 13,692 | 2,426,154 | 2,426,154 | | | 12 | | | | | |
| 2008 | 20,195 | 2,969,377 | 2,969,377 | | | 26 | | | | | |
| 2009 | 30,391 | 3,451,988 | 3,451,988 | | | 39 | | | | | |
| 2010 | 30,803 | 2,002,546 | 2,002,546 | | | 39 | | | | | |
| 2011 | 37,728 | 2,896,542 | 2,896,542 | | | 24 | | | | | |
| 2012 | 36,454 | 5,727,994 | 5,727,994 | | | 45 | | | | | |
| 2013 | n/a | 663,858 | 663,858 | | | n/a | | | | | |
| 2014 | 29,642 | 1,465,646 | 1,465,646 | | | 44 | | | | | |
| 2015 | 29,000 | 1,148,935 | 1,148,935 | | | 36 | | | | | |
| Total | | \$25,305,476 | \$ 25,305,475 | | | | | | | | |
| Flex Peak Program | | | | | | | | | | | |
| 2009 | 33 | 528,681 | 528,681 | | | 19 | | | | | |
| 2010 | 60 | 1,902,680 | 1,902,680 | | | 48 | | | | | |
| 2011 | 111 | 2,057,730 | 2,057,730 | | | 59 | | | | | |
| 2012 | 102 | 3,009,822 | 3,009,822 | | | 53 | | | | | |
| 2013 | 100 | 2,743,615 | 2,743,615 | | | 48 | | | | | |
| 2014 | 93 | 1,563,211 | 1,563,211 | | | 40 | | | | | |
| 2015 | 72 | 592,872 | 592,872 | | | 26 | | | | | |
| Total | | \$12,398,611 | \$ 12,398,611 | | | | | | | | |
| Irrigation Peak Rewards | | | | | | | | | | | |
| 2004 | 58 | 344,714 | 344,714 | | | 6 | | | | | |
| 2005 | 894 | 1,468,282 | 1,468,282 | | | 40 | | | | | |
| 2006 | 906 | 1,324,418 | 1,324,418 | | | 32 | | | | | |
| 2007 | 947 | 1,615,881 | 1,615,881 | | | 37 | | | | | |
| 2008 | 897 | 1,431,840 | 1,431,840 | | | 35 | | | | | |

Appendix 4. Historical DSM expense and performance, 2002–2015 (continued)

| Program/Year | Participants | Total Costs | | Savings and Demand Reductions | | | Measure Life (Years) | Levelized Costs ^a | | Program Life Benefit/Cost Ratios ^b | |
|-------------------------------|--------------|---------------------------|----------------------------|-------------------------------|-----------------------------------|-------------------------------|----------------------|------------------------------|-------------------------|---|----------------|
| | | Utility Cost ^c | Resource Cost ^d | Annual Energy (kWh) | Average Energy ^e (aMW) | Peak Demand ^f (MW) | | Total Utility (\$/kWh) | Total Resource (\$/kWh) | Utility | Total Resource |
| Demand Response | | | | | | | | | | | |
| Irrigation Peak Rewards | | | | | | | | | | | |
| 2009 | 1,512 | \$ 9,655,283 | \$ 9,655,283 | | | 160 | | | | | |
| 2010 | 2,038 | 13,330,826 | 13,330,826 | | | 250 | | | | | |
| 2011 | 2,342 | 12,086,222 | 12,086,222 | | | 320 | | | | | |
| 2012 | 2,433 | 12,423,364 | 12,423,364 | | | 340 | | | | | |
| 2013 | n/a | 2,072,107 | 2,072,107 | | | n/a | | | | | |
| 2014 | 2,225 | 7,597,213 | 7,597,213 | | | 295 | | | | | |
| 2015 | 2,259 | 7,258,831 | 7,258,831 | | | 305 | | | | | |
| Total | | \$ 70,608,981 | \$ 70,608,981 | | | | | | | | |
| Residential Efficiency | | | | | | | | | | | |
| Ductless Heat Pump Pilot | | | | | | | | | | | |
| 2009 | 96 | 202,005 | 451,605 | 409,180 | 0.05 | 18 | \$ 0.031 | \$ 0.086 | | | |
| 2010 | 104 | 189,231 | 439,559 | 364,000 | 0.04 | 20 | 0.044 | 0.103 | | | |
| 2011 | 131 | 191,183 | 550,033 | 458,500 | 0.05 | 20 | 0.028 | 0.081 | | | |
| 2012 | 127 | 159,867 | 617,833 | 444,500 | 0.05 | 20 | 0.024 | 0.094 | | | |
| 2013 | 215 | 237,575 | 992,440 | 589,142 | 0.07 | 15 | 0.032 | 0.132 | | | |
| 2014 | 179 | 251,446 | 884,211 | 462,747 | 0.05 | 15 | 0.042 | 0.148 | | | |
| Total | 852 | \$ 1,231,307 | \$ 3,935,681 | 2,728,069 | | 15 | \$ 0.044 | \$ 0.138 | | | |
| Easy Savings Kits | | | | | | | | | | | |
| 2015 | 2,068 | 127,477 | 127,477 | | | | | | | | |
| Total | 2,068 | \$ 127,477 | \$ 127,477 | | | | | | | | |
| Educational Distributions | | | | | | | | | | | |
| 2015 | 28,197 | 432,185 | 432,185 | 1,669,495 | | | | | | | |
| Total | | \$ 432,185 | \$ 432,185 | 1,669,495 | | | | | | | |
| Energy Efficiency Packets | | | | | | | | | | | |
| 2002 | 2,925 | 755 | 755 | 155,757 | 0.02 | 7 | 0.001 | 0.001 | | | |
| Total | 2,925 | \$ 755 | \$ 755 | 155,757 | | 7 | \$ 0.001 | \$ 0.001 | | | |
| Energy Efficient Lighting | | | | | | | | | | | |
| 2002 | 11,618 | 243,033 | 310,643 | 3,299,654 | 0.38 | 7 | 0.012 | 0.015 | | | |
| 2003 | 12,662 | 314,641 | 464,059 | 3,596,150 | 0.41 | 7 | 0.014 | 0.021 | | | |

Appendix 4. Historical DSM expense and performance, 2002–2015 (continued)

| Program/Year | Participants | Total Costs | | Savings and Demand Reductions | | | Measure Life (Years) | Levelized Costs ^a | | Program Life Benefit/Cost Ratios ^b | |
|-------------------------------|------------------|---------------------------|----------------------------|-------------------------------|-----------------------------------|-------------------------------|----------------------|------------------------------|-------------------------|---|----------------|
| | | Utility Cost ^c | Resource Cost ^d | Annual Energy (kWh) | Average Energy ^e (aMW) | Peak Demand ^f (MW) | | Total Utility (\$/kWh) | Total Resource (\$/kWh) | Utility | Total Resource |
| Residential Efficiency | | | | | | | | | | | |
| Energy Efficient Lighting | | | | | | | | | | | |
| 2004 | | | | | | | | | | | |
| 2005 | 43,760 | \$ 73,152 | \$ 107,810 | 1,734,646 | 0.20 | | 7 | \$ 0.007 | \$ 0.010 | | |
| 2006 | 178,514 | 298,754 | 539,877 | 6,302,794 | 0.72 | | 7 | 0.008 | 0.014 | | |
| 2007 | 219,739 | 557,646 | 433,626 | 7,207,439 | 0.82 | | 7 | 0.012 | 0.017 | | |
| 2008 | 436,234 | 1,018,292 | 793,265 | 14,309,444 | 1.63 | | 7 | 0.011 | 0.013 | | |
| 2009 | 549,846 | 1,207,366 | 1,456,796 | 13,410,748 | 1.53 | | 5 | 0.020 | 0.024 | | |
| 2010 | 1,190,139 | 2,501,278 | 3,976,476 | 28,082,738 | 3.21 | | 5 | 0.020 | 0.031 | | |
| 2011 | 1,039,755 | 1,719,133 | 2,764,623 | 19,694,381 | 2.25 | | 5 | 0.015 | 0.024 | | |
| 2012 | 925,460 | 1,126,836 | 2,407,355 | 16,708,659 | 1.91 | | 5 | 0.012 | 0.025 | | |
| 2013 | 1,085,225 | 1,356,926 | 4,889,501 | 9,995,753 | 1.14 | | 8 | 0.016 | 0.058 | | |
| 2014 | 1,161,553 | 1,909,823 | 7,148,427 | 12,882,151 | 1.47 | | 8 | 0.018 | 0.066 | | |
| 2015 | 1,343,255 | 2,063,383 | 4,428,676 | 15,876,117 | 1.81 | | 10 | 0.013 | 0.028 | | |
| Total | 8,197,760 | \$ 14,390,263 | \$ 29,721,134 | 153,100,674 | | | 8 | \$ 0.014 | \$ 0.028 | 4.24 | 2.05 |
| Energy House Calls | | | | | | | | | | | |
| 2002 | 17 | 26,053 | 26,053 | 25,989 | 0.00 | | 20 | 0.082 | 0.082 | | |
| 2003 | 420 | 167,076 | 167,076 | 602,723 | 0.07 | | 20 | 0.023 | 0.023 | | |
| 2004 | 1,708 | 725,981 | 725,981 | 2,349,783 | 0.27 | | 20 | 0.025 | 0.025 | | |
| 2005 | 891 | 375,610 | 375,610 | 1,775,770 | 0.20 | | 20 | 0.017 | 0.017 | | |
| 2006 | 819 | 336,701 | 336,701 | 777,244 | 0.09 | | 20 | 0.035 | 0.035 | | |
| 2007 | 700 | 336,372 | 336,372 | 699,899 | 0.08 | | 20 | 0.039 | 0.039 | | |
| 2008 | 1,099 | 484,379 | 484,379 | 883,038 | 0.10 | | 20 | 0.045 | 0.045 | | |
| 2009 | 1,266 | 569,594 | 569,594 | 928,875 | 0.11 | | 20 | 0.052 | 0.052 | | |
| 2010 | 1,602 | 762,330 | 762,330 | 1,198,655 | 0.14 | | 20 | 0.054 | 0.054 | | |
| 2011 | 881 | 483,375 | 483,375 | 1,214,004 | 0.14 | | 20 | 0.027 | 0.027 | | |
| 2012 | 668 | 275,884 | 275,884 | 1,192,039 | 0.14 | | 18 | 0.016 | 0.016 | | |
| 2013 | 411 | 199,995 | 199,995 | 837,261 | 0.10 | | 18 | 0.016 | 0.016 | | |
| 2014 | 297 | 197,987 | 197,987 | 579,126 | 0.07 | | 18 | 0.030 | 0.030 | | |
| 2015 | 362 | 214,103 | 214,103 | 754,646 | 0.09 | | 18 | 0.020 | 0.020 | | |
| Total | 11,141 | \$ 5,155,440 | \$ 5,155,440 | 13,819,052 | | | 18 | \$ 0.032 | \$ 0.032 | 2.38 | 2.38 |

Appendix 4. Historical DSM expense and performance, 2002–2015 (continued)

| Program/Year | Participants | Total Costs | | Savings and Demand Reductions | | | Measure Life (Years) | Levelized Costs ^a | | Program Life Benefit/Cost Ratios ^b | |
|---|--------------|---------------------------|----------------------------|-------------------------------|-----------------------------------|-------------------------------|----------------------|------------------------------|-------------------------|---|----------------|
| | | Utility Cost ^c | Resource Cost ^d | Annual Energy (kWh) | Average Energy ^e (aMW) | Peak Demand ^f (MW) | | Total Utility (\$/kWh) | Total Resource (\$/kWh) | Utility | Total Resource |
| Residential Efficiency | | | | | | | | | | | |
| ENERGY STAR Homes Northwest | | | | | | | | | | | |
| 2003 | | \$ 13,597 | \$ 13,597 | 0 | | | | | | | |
| 2004 | 44 | 140,165 | 335,437 | 101,200 | 0.01 | | 25 | \$ 0.103 | \$ 0.246 | | |
| 2005 | 200 | 253,105 | 315,311 | 415,600 | 0.05 | | 25 | 0.045 | 0.056 | | |
| 2006 | 439 | 469,609 | 602,651 | 912,242 | 0.10 | | 25 | 0.038 | 0.049 | | |
| 2007 | 303 | 475,044 | 400,637 | 629,634 | 0.07 | | 25 | 0.056 | 0.047 | | |
| 2008 | 254 | 302,061 | 375,007 | 468,958 | 0.05 | | 25 | 0.048 | 0.059 | | |
| 2009 | 474 | 355,623 | 498,622 | 705,784 | 0.08 | | 25 | 0.039 | 0.055 | | |
| 2010 | 630 | 375,605 | 579,495 | 883,260 | 0.10 | | 25 | 0.033 | 0.051 | | |
| 2011 | 308 | 259,762 | 651,249 | 728,030 | 0.08 | | 32 | 0.020 | 0.051 | | |
| 2012 | 410 | 453,186 | 871,310 | 537,447 | 0.06 | | 35 | 0.046 | 0.089 | | |
| 2013 | 267 | 352,882 | 697,682 | 365,370 | 0.04 | | 36 | 0.053 | 0.104 | | |
| 2014 | 243 | 343,277 | 689,021 | 332,682 | 0.04 | | 36 | 0.055 | 0.111 | | |
| 2015 | 598 | 653,674 | 1,412,126 | 773,812 | 0.09 | | 36 | 0.046 | 0.099 | | |
| Total | 4,170 | \$ 4,447,589 | \$ 7,442,146 | 6,854,019 | | | 36 | \$ 0.043 | \$ 0.072 | 2.38 | 1.42 |
| ENERGY STAR Homes Northwest (gas heated) | | | | | | | | | | | |
| 2014 | 282 | | | 195,372 | 0.04 | | 22 | | | | |
| 2015 | 69 | | | 46,872 | 0.09 | | 22 | | | | |
| Total | 351 | | | 242,244 | | | | | | | |
| Heating & Cooling Efficiency Program/Ductless Heat Pump | | | | | | | | | | | |
| 2006 | | 17,444 | 17,444 | | | | | | | | |
| 2007 | 4 | 488,211 | 494,989 | 1,595 | 0.00 | | 18 | 27.344 | 27.710 | | |
| 2008 | 359 | 473,551 | 599,771 | 561,440 | 0.06 | | 18 | 0.073 | 0.092 | | |
| 2009 | 349 | 478,373 | 764,671 | 1,274,829 | 0.15 | | 18 | 0.034 | 0.054 | | |
| 2010 | 217 | 327,669 | 1,073,604 | 1,104,497 | 0.13 | | 20 | 0.025 | 0.083 | | |
| 2011 | 130 | 195,770 | 614,523 | 733,405 | 0.08 | | 20 | 0.018 | 0.056 | | |
| 2012 | 141 | 182,281 | 676,530 | 688,855 | 0.08 | | 20 | 0.018 | 0.066 | | |
| 2013 | 210 | 329,674 | 741,586 | 1,003,730 | 0.11 | | 20 | 0.022 | 0.050 | | |
| 2014 | 230 | 362,014 | 1,247,560 | 1,099,464 | 0.13 | | 20 | 0.022 | 0.075 | | |
| 2015 | 427 | 626,369 | 2,064,055 | 1,502,172 | 0.17 | | 20 | 0.028 | 0.092 | | |
| Total | 2,067 | \$ 3,481,357 | \$ 8,294,733 | 7,969,987 | | | 20 | \$ 0.036 | \$ 0.085 | 2.80 | 1.18 |

Appendix 4. Historical DSM expense and performance, 2002–2015 (continued)

| Program/Year | Participants | Total Costs | | Savings and Demand Reductions | | | Levitized Costs ^a | | Program Life Benefit/Cost Ratios ^b | |
|-----------------------------------|--------------|---------------------------|----------------------------|-------------------------------|-----------------------------------|-------------------------------|------------------------------|------------------------|---|------------------|
| | | Utility Cost ^c | Resource Cost ^d | Annual Energy (kWh) | Average Energy ^e (aMW) | Peak Demand ^f (MW) | Measure Life (Years) | Total Utility (\$/kWh) | Total Resource (\$/kWh) | Utility |
| Residential Efficiency | | | | | | | | | | |
| Home Energy Audit | | | | | | | | | | |
| 2013 | | \$ 88,740 | \$ 88,740 | | | | | | | |
| 2014 | 354 | 170,648 | 170,648 | 141,077 | | | 10 | | | |
| 2015 | 251 | 201,957 | 201,957 | 136,002 | | | | | | |
| Total | 605 | \$ 461,345 | \$ 486,194 | 227,079 | | | 10 | | | |
| Home Improvement | | | | | | | | | | |
| 2008 | 282 | 123,454 | 157,866 | 317,814 | 0.04 | | 25 | \$ 0.029 | \$ 0.037 | |
| 2009 | 1,188 | 321,140 | 550,148 | 1,338,876 | 0.15 | | 25 | 0.019 | 0.032 | |
| 2010 | 3,537 | 944,716 | 2,112,737 | 3,986,199 | 0.46 | | 45 | 0.016 | 0.035 | |
| 2011 | 2,275 | 666,041 | 2,704,816 | 917,519 | 0.10 | | 45 | 0.038 | 0.155 | |
| 2012 | 840 | 385,091 | 812,827 | 457,353 | 0.05 | | 45 | 0.044 | 0.093 | |
| 2013 | 365 | 299,497 | 1,061,314 | 616,044 | 0.07 | | 45 | 0.025 | 0.090 | |
| 2014 | 555 | 324,717 | 896,246 | 838,929 | 0.10 | | 45 | 0.020 | 0.055 | |
| 2015 | 408 | 272,509 | 893,731 | 303,580 | 0.03 | | 45 | 0.046 | 0.152 | |
| Total | 9,450 | \$ 3,337,165 | \$ 9,189,685 | 8,776,314 | | | 45 | \$ 0.024 | \$ 0.066 | 4.21 1.53 |
| Oregon Residential Weatherization | | | | | | | | | | |
| 2002 | 24 | (662) | 23,971 | 4,580 | | | 25 | 0.010 | 0.389 | |
| 2003 | | (943) | | | | | | | | |
| 2004 | 4 | 1,057 | 1,057 | | | | | | | |
| 2005 | 4 | 612 | 3,608 | 7,927 | 0.00 | | 25 | 0.006 | 0.034 | |
| 2006 | | 4,126 | 4,126 | | | | | | | |
| 2007 | 1 | 3,781 | 5,589 | 9,971 | 0.00 | | 25 | 0.028 | 0.042 | |
| 2008 | 3 | 7,417 | 28,752 | 22,196 | 0.00 | | 25 | 0.025 | 0.096 | |
| 2009 | 1 | 7,645 | 8,410 | 2,907 | 0.00 | | 25 | 0.203 | 0.223 | |
| 2010 | 1 | 6,050 | 6,275 | 320 | 0.00 | | 30 | 0.011 | 0.062 | |
| 2011 | 8 | 7,926 | 10,208 | 21,908 | 0.00 | | 30 | 0.021 | 0.027 | |
| 2012 | 5 | 4,516 | 11,657 | 11,985 | 0.00 | | 30 | 0.022 | 0.056 | |
| 2013 | 14 | 9,017 | 14,369 | 14,907 | 0.00 | | 30 | 0.035 | 0.055 | |
| 2014 | 13 | 5,462 | 9,723 | 11,032 | 0.00 | | 30 | 0.028 | 0.050 | |
| 2015 | 19 | 5,808 | 10,388 | 11,910 | 0.00 | | 30 | 0.028 | 0.050 | |
| Total | 82 | \$ 61,812 | \$ 138,133 | 119,643 | | | 30 | \$ 0.036 | \$ 0.080 | 2.89 1.29 |

Appendix 4. Historical DSM expense and performance, 2002–2015 (continued)

| Program/Year | Participants | Total Costs | | Savings and Demand Reductions | | | Measure Life (Years) | Levelized Costs ^a | | Program Life Benefit/Cost Ratios ^b | |
|--|---------------|---------------------------|----------------------------|-------------------------------|-----------------------------------|-------------------------------|----------------------|------------------------------|-------------------------|---|----------------|
| | | Utility Cost ^c | Resource Cost ^d | Annual Energy (kWh) | Average Energy ^e (aMW) | Peak Demand ^f (MW) | | Total Utility (\$/kWh) | Total Resource (\$/kWh) | Utility | Total Resource |
| Residential Efficiency | | | | | | | | | | | |
| Rebate Advantage | | | | | | | | | | | |
| 2003 | 73 | \$ 27,372 | \$ 79,399 | 227,434 | 0.03 | | 45 | \$ 0.008 | \$ 0.022 | | |
| 2004 | 105 | 52,187 | 178,712 | 332,587 | 0.04 | | 45 | 0.010 | 0.034 | | |
| 2005 | 98 | 46,173 | 158,462 | 312,311 | 0.04 | | 45 | 0.009 | 0.032 | | |
| 2006 | 102 | 52,673 | 140,289 | 333,494 | 0.04 | | 45 | 0.010 | 0.027 | | |
| 2007 | 123 | 89,269 | 182,152 | 554,018 | 0.06 | | 45 | 0.010 | 0.021 | | |
| 2008 | 107 | 90,888 | 179,868 | 463,401 | 0.05 | | 45 | 0.012 | 0.025 | | |
| 2009 | 57 | 49,525 | 93,073 | 247,348 | 0.03 | | 25 | 0.015 | 0.029 | | |
| 2010 | 35 | 39,402 | 66,142 | 164,894 | 0.02 | | 25 | 0.018 | 0.031 | | |
| 2011 | 25 | 63,469 | 85,044 | 159,325 | 0.02 | | 25 | 0.024 | 0.033 | | |
| 2012 | 35 | 37,241 | 71,911 | 187,108 | 0.02 | | 25 | 0.012 | 0.024 | | |
| 2013 | 42 | 60,770 | 92,690 | 269,891 | 0.03 | | 25 | 0.014 | 0.021 | | |
| 2014 | 44 | 63,231 | 89,699 | 269,643 | 0.03 | | 25 | 0.014 | 0.020 | | |
| 2015 | 58 | 85,438 | 117,322 | 358,683 | 0.04 | | 25 | 0.014 | 0.020 | | |
| Total | 904 | \$ 757,638 | \$ 1,534,764 | 3,880,137 | | | 25 | \$ 0.014 | \$ 0.029 | 7.49 | 3.70 |
| See ya later, refrigerator [®] | | | | | | | | | | | |
| 2009 | 1,661 | 305,401 | 305,401 | 1,132,802 | 0.13 | | 8 | 0.041 | 0.041 | | |
| 2010 | 3,152 | 565,079 | 565,079 | 1,567,736 | 0.18 | | 8 | 0.054 | 0.054 | | |
| 2011 | 3,449 | 654,393 | 654,393 | 1,712,423 | 0.20 | | 8 | 0.046 | 0.046 | | |
| 2012 | 3,176 | 613,146 | 613,146 | 1,576,426 | 0.18 | | 8 | 0.046 | 0.046 | | |
| 2013 | 3,307 | 589,054 | 589,054 | 1,442,344 | 0.16 | | 6 | 0.061 | 0.061 | | |
| 2014 | 3,194 | 576,051 | 576,051 | 1,390,760 | 0.16 | | 6 | 0.062 | 0.062 | | |
| 2015 | 1,630 | 227,179 | 227,179 | 720,208 | 0.08 | | 6 | 0.048 | 0.048 | | |
| Total | 19,569 | \$ 3,530,303 | \$ 3,530,303 | 9,542,699 | | | 6 | \$ 0.068 | \$ 0.068 | 1.20 | 1.20 |
| Simple Steps Smart Savings/Home Products Program | | | | | | | | | | | |
| 2007 | | 9,275 | 9,275 | 0 | | | | | | | |
| 2008 | 3,034 | 250,860 | 468,056 | 541,615 | 0.06 | | 15 | 0.044 | 0.082 | | |
| 2009 | 9,499 | 511,313 | 844,811 | 1,638,038 | 0.19 | | 15 | 0.031 | 0.051 | | |
| 2010 | 16,322 | 832,161 | 1,025,151 | 1,443,580 | 0.16 | | 15 | 0.057 | 0.070 | | |
| 2011 | 15,896 | 638,323 | 1,520,977 | 1,485,326 | 0.17 | | 15 | 0.034 | 0.080 | | |

Appendix 4. Historical DSM expense and performance, 2002–2015 (continued)

| Program/Year | Participants | Total Costs | | Savings and Demand Reductions | | | Measure Life (Years) | Levelized Costs ^a | | Program Life Benefit/Cost Ratios ^b | |
|---|---------------|---------------------------|----------------------------|-------------------------------|-----------------------------------|-------------------------------|----------------------|------------------------------|-------------------------|---|----------------|
| | | Utility Cost ^c | Resource Cost ^d | Annual Energy (kWh) | Average Energy ^e (aMW) | Peak Demand ^f (MW) | | Total Utility (\$/kWh) | Total Resource (\$/kWh) | Utility | Total Resource |
| Residential Efficiency | | | | | | | | | | | |
| Simple Steps Smart Savings/Home Products Program | | | | | | | | | | | |
| 2012 | 16,675 | \$ 659,032 | \$ 817,924 | 887,222 | 0.10 | | 14 | \$ 0.061 | \$ 0.075 | | |
| 2013 | 13,792 | 405,515 | 702,536 | 885,980 | 0.10 | | 12 | 0.041 | 0.071 | | |
| 2014 | 10,061 | 227,176 | 302,289 | 652,129 | 0.07 | | 12 | 0.031 | 0.041 | | |
| 2015 | 9,343 | 139,096 | 408,032 | 770,822 | 0.09 | | 10 | 0.018 | 0.053 | | |
| Total | 94,622 | \$ 3,672,750 | \$ 6,099,051 | 8,304,712 | | | 12 | \$ 0.049 | \$ 0.081 | 1.83 | 1.10 |
| Weatherization Solutions for Eligible Customers | | | | | | | | | | | |
| 2008 | 16 | 52,807 | 52,807 | 71,680 | 0.01 | | 25 | 0.057 | 0.057 | | |
| 2009 | 41 | 162,995 | 162,995 | 211,719 | 0.02 | | 25 | 0.059 | 0.059 | | |
| 2010 | 47 | 228,425 | 228,425 | 313,309 | 0.04 | | 25 | 0.056 | 0.056 | | |
| 2011 | 117 | 788,148 | 788,148 | 1,141,194 | 0.13 | | 25 | 0.042 | 0.042 | | |
| 2012 | 141 | 1,070,556 | 1,070,556 | 257,466 | 0.03 | | 25 | 0.254 | 0.254 | | |
| 2013 | 166 | 1,267,791 | 1,267,791 | 303,116 | 0.03 | | 25 | 0.240 | 0.240 | | |
| 2014 | 118 | 791,344 | 791,344 | 290,926 | 0.03 | | 25 | 0.163 | 0.163 | | |
| 2015 | 171 | 1,243,269 | 1,243,269 | 432,958 | 0.05 | | 25 | 0.175 | 0.175 | | |
| Total | 817 | \$ 5,605,335 | \$ 5,605,335 | 3,022,368 | | | 30 | \$ 0.129 | \$ 0.129 | 0.72 | 0.72 |
| Window AC Trade-Up Pilot | | | | | | | | | | | |
| 2003 | 99 | 6,687 | 10,492 | 14,454 | | | 12 | 0.051 | 0.079 | | |
| Total | 99 | \$ 6,687 | \$ 10,492 | 14,454 | | | 12 | \$ 0.051 | \$ 0.079 | | |
| Residential—Weatherization Assistance for Qualified Customers (WAQC) | | | | | | | | | | | |
| WAQC—Idaho | | | | | | | | | | | |
| 2002 | 197 | 235,048 | 492,139 | | | | | | | | |
| 2003 | 208 | 228,134 | 483,369 | | | | | | | | |
| 2004 | 269 | 498,474 | 859,482 | 1,271,677 | 0.15 | | 25 | 0.029 | 0.050 | | |
| 2005 | 570 | 1,402,487 | 1,927,424 | 3,179,311 | 0.36 | | 25 | 0.033 | 0.045 | | |
| 2006 | 540 | 1,455,373 | 2,231,086 | 2,958,024 | 0.34 | | 25 | 0.037 | 0.056 | | |
| 2007 | 397 | 1,292,930 | 1,757,105 | 3,296,019 | 0.38 | | 25 | 0.029 | 0.040 | | |
| 2008 | 439 | 1,375,632 | 1,755,749 | 4,064,301 | 0.46 | | 25 | 0.025 | 0.032 | | |

Appendix 4. Historical DSM expense and performance, 2002–2015 (continued)

| Program/Year | Participants | Total Costs | | Savings and Demand Reductions | | | Measure Life (Years) | Levelized Costs ^a | | Program Life Benefit/Cost Ratios ^b | |
|---------------------------|--------------|---------------------------|----------------------------|-------------------------------|-----------------------------------|-------------------------------|----------------------|------------------------------|-------------------------|---|----------------|
| | | Utility Cost ^c | Resource Cost ^d | Annual Energy (kWh) | Average Energy ^e (aMW) | Peak Demand ^f (MW) | | Total Utility (\$/kWh) | Total Resource (\$/kWh) | Utility | Total Resource |
| Residential—(WAQC) | | | | | | | | | | | |
| WAQC—Idaho | | | | | | | | | | | |
| 2009 | 427 | \$ 1,260,922 | \$ 1,937,578 | 4,563,832 | 0.52 | | 25 | \$ 0.021 | \$ 0.033 | | |
| 2010 | 373 | 1,205,446 | 2,782,597 | 3,452,025 | 0.39 | | 25 | 0.026 | 0.060 | | |
| 2011 | 273 | 1,278,112 | 1,861,836 | 2,648,676 | 0.30 | | 25 | 0.036 | 0.053 | | |
| 2012 | 228 | 1,321,927 | 1,743,863 | 621,464 | 0.07 | | 25 | 0.159 | 0.210 | | |
| 2013 | 245 | 1,336,742 | 1,984,173 | 657,580 | 0.08 | | 25 | 0.152 | 0.226 | | |
| 2014 | 244 | 1,267,212 | 1,902,615 | 509,620 | 0.06 | | 25 | 0.185 | 0.277 | | |
| 2015 | 233 | 1,278,159 | 2,072,901 | 529,426 | 0.06 | | 25 | 0.179 | 0.291 | | |
| Total | 4,643 | \$ 15,436,598 | \$ 23,791,917 | 27,751,955 | | | 25 | \$ 0.041 | \$ 0.064 | 2.82 | 1.83 |
| WAQC—Oregon | | | | | | | | | | | |
| 2002 | 31 | 24,773 | 47,221 | 68,323 | 0.01 | | 25 | 0.027 | 0.051 | | |
| 2003 | 29 | 22,255 | 42,335 | 102,643 | 0.01 | | 25 | 0.016 | 0.031 | | |
| 2004 | 17 | 13,469 | 25,452 | 28,436 | 0.00 | | 25 | 0.035 | 0.067 | | |
| 2005 | 28 | 44,348 | 59,443 | 94,279 | 0.01 | | 25 | 0.035 | 0.047 | | |
| 2006 | | | | | | | 25 | | | | |
| 2007 | 11 | 30,694 | 41,700 | 42,108 | 0.00 | | 25 | 0.054 | 0.074 | | |
| 2008 | 14 | 43,843 | 74,048 | 73,841 | 0.01 | | 25 | 0.040 | 0.068 | | |
| 2009 | 10 | 33,940 | 46,513 | 114,982 | 0.01 | | 25 | 0.023 | 0.031 | | |
| 2010 | 27 | 115,686 | 147,712 | 289,627 | 0.03 | | 25 | 0.030 | 0.038 | | |
| 2011 | 14 | 46,303 | 63,981 | 134,972 | 0.02 | | 25 | 0.026 | 0.035 | | |
| 2012 | 10 | 48,214 | 76,083 | 26,840 | 0.00 | | 25 | 0.134 | 0.212 | | |
| 2013 | 9 | 54,935 | 67,847 | 24,156 | 0.00 | | 25 | 0.170 | 0.210 | | |
| 2014 | 11 | 52,900 | 94,493 | 24,180 | 0.00 | | 25 | 0.162 | 0.290 | | |
| 2015 | 10 | 36,873 | 46,900 | 20,595 | 0.00 | | 25 | 0.133 | 0.169 | | |
| Total | 221 | \$ 568,232 | \$ 833,728 | 1,044,982 | | | 25 | \$ 0.040 | \$ 0.059 | 2.77 | 1.89 |
| WAQC—BPA Supplemental | | | | | | | | | | | |
| 2002 | 75 | 55,966 | 118,255 | 311,347 | 0.04 | | 25 | 0.013 | 0.028 | | |
| 2003 | 57 | 49,895 | 106,915 | 223,591 | 0.03 | | 25 | 0.017 | 0.036 | | |
| 2004 | 40 | 69,409 | 105,021 | 125,919 | 0.01 | | 25 | 0.041 | 0.062 | | |
| Total | 172 | \$ 175,270 | \$ 330,191 | 660,857 | | | 25 | \$ 0.020 | \$ 0.037 | 5.75 | 3.05 |
| WAQC Total | | \$ 16,180,101 | \$ 24,955,836 | 29,457,794 | | | 25 | \$ 0.041 | \$ 0.063 | 2.85 | 1.85 |

Appendix 4. Historical DSM expense and performance, 2002–2015 (continued)

| Program/Year | Participants | Total Costs | | Savings and Demand Reductions | | | Measure Life (Years) | Levelized Costs ^a | | Program Life Benefit/Cost Ratios ^b | |
|---------------------|--------------|---------------------------|----------------------------|-------------------------------|-----------------------------------|-------------------------------|----------------------|------------------------------|-------------------------|---|----------------|
| | | Utility Cost ^c | Resource Cost ^d | Annual Energy (kWh) | Average Energy ^e (aMW) | Peak Demand ^f (MW) | | Total Utility (\$/kWh) | Total Resource (\$/kWh) | Utility | Total Resource |
| Commercial | | | | | | | | | | | |
| Air Care Plus Pilot | | | | | | | | | | | |
| 2003 | 4 | \$ 5,764 | \$ 9,061 | 33,976 | | | 10 | \$ 0.021 | \$ 0.033 | | |
| 2004 | | 344 | 344 | | | | | | | | |
| Total | 4 | \$ 6,108 | \$ 9,405 | 33,976 | | | 10 | \$ 0.022 | \$ 0.034 | | |
| Building Efficiency | | | | | | | | | | | |
| 2004 | | 28,821 | 28,821 | | | | | | | | |
| 2005 | 12 | 194,066 | 233,149 | 494,239 | 0.06 | 0.2 | 12 | \$ 0.043 | \$ 0.052 | | |
| 2006 | 40 | 374,008 | 463,770 | 704,541 | 0.08 | 0.3 | 12 | 0.058 | 0.072 | | |
| 2007 | 22 | 669,032 | 802,839 | 2,817,248 | 0.32 | 0.5 | 12 | 0.015 | 0.040 | | |
| 2008 | 60 | 1,055,009 | 1,671,375 | 6,598,123 | 0.75 | 1.0 | 12 | 0.017 | 0.028 | | |
| 2009 | 72 | 1,327,127 | 2,356,434 | 6,146,139 | 0.70 | 1.3 | 12 | 0.024 | 0.043 | | |
| 2010 | 70 | 1,509,682 | 3,312,963 | 10,819,598 | 1.24 | 0.9 | 12 | 0.016 | 0.035 | | |
| 2011 | 63 | 1,291,425 | 3,320,015 | 11,514,641 | 1.31 | 0.9 | 12 | 0.010 | 0.026 | | |
| 2012 | 84 | 1,592,572 | 8,204,883 | 20,450,037 | 2.33 | 0.6 | 12 | 0.007 | 0.036 | | |
| 2013 | 59 | 1,507,035 | 3,942,880 | 10,988,934 | 1.25 | 1.1 | 12 | 0.012 | 0.032 | | |
| 2014 | 69 | 1,258,273 | 3,972,822 | 9,458,059 | 1.08 | 1.2 | 12 | 0.012 | 0.037 | | |
| 2015 | 81 | 2,162,001 | 6,293,071 | 23,232,017 | 2.65 | | 12 | 0.008 | 0.024 | | |
| Total | 632 | \$ 12,969,051 | \$ 34,603,023 | 103,223,576 | | | 12 | \$ 0.014 | \$ 0.037 | 5.46 | 2.05 |
| Custom Efficiency | | | | | | | | | | | |
| 2003 | | 1,303 | 1,303 | | | | | | | | |
| 2004 | 1 | 112,311 | 133,441 | 211,295 | 0.02 | | 12 | 0.058 | 0.069 | | |
| 2005 | 24 | 1,128,076 | 3,653,152 | 12,016,678 | 1.37 | | 12 | 0.010 | 0.033 | | |
| 2006 | 40 | 1,625,216 | 4,273,885 | 19,211,605 | 2.19 | | 12 | 0.009 | 0.024 | | |
| 2007 | 49 | 3,161,866 | 7,012,686 | 29,789,304 | 3.40 | 3.6 | 12 | 0.012 | 0.026 | | |
| 2008 | 101 | 4,045,671 | 16,312,379 | 41,058,639 | 4.69 | 4.8 | 12 | 0.011 | 0.044 | | |
| 2009 | 132 | 6,061,467 | 10,848,123 | 51,835,612 | 5.92 | 6.7 | 12 | 0.013 | 0.024 | | |
| 2010 | 223 | 8,778,125 | 17,172,176 | 71,580,075 | 8.17 | 9.5 | 12 | 0.014 | 0.027 | | |
| 2011 | 166 | 8,783,811 | 19,830,834 | 67,979,157 | 7.76 | 7.8 | 12 | 0.012 | 0.026 | | |
| 2012 | 126 | 7,092,581 | 12,975,629 | 54,253,106 | 6.19 | 7.6 | 12 | 0.012 | 0.021 | | |
| 2013 | 73 | 2,466,225 | 5,771,640 | 21,370,350 | 2.43 | 2.4 | 12 | 0.010 | 0.024 | | |

Appendix 4. Historical DSM expense and performance, 2002–2015 (continued)

| Program/Year | Participants | Total Costs | | Savings and Demand Reductions | | | Measure Life (Years) | Levitized Costs ^a | | Program Life Benefit/Cost Ratios ^b | |
|-------------------------|---------------|---------------------------|----------------------------|-------------------------------|-----------------------------------|-------------------------------|----------------------|------------------------------|-------------------------|---|----------------|
| | | Utility Cost ^c | Resource Cost ^d | Annual Energy (kWh) | Average Energy ^e (aMW) | Peak Demand ^f (MW) | | Total Utility (\$/kWh) | Total Resource (\$/kWh) | Utility | Total Resource |
| Commercial | | | | | | | | | | | |
| Custom Efficiency | | | | | | | | | | | |
| 2014 | 131 | \$ 7,173,054 | \$ 13,409,922 | 50,363,052 | 5.75 | 5.6 | 12 | \$ 0.013 | \$ 0.024 | | |
| 2015 | 160 | 9,012,628 | 20,533,742 | 55,247,192 | 6.31 | | 11 | 0.016 | 0.035 | | |
| Total | 1,226 | \$ 59,442,333 | \$131,928,913 | 474,916,065 | | | 12 | \$ 0.014 | \$ 0.031 | 5.59 | 2.52 |
| Easy Upgrades | | | | | | | | | | | |
| 2006 | | 31,819 | 31,819 | | | | | | | | |
| 2007 | 104 | 711,494 | 1,882,035 | 5,183,640 | 0.59 | 0.8 | 12 | 0.015 | 0.040 | | |
| 2008 | 666 | 2,992,261 | 10,096,627 | 25,928,391 | 2.96 | 4.5 | 12 | 0.013 | 0.043 | | |
| 2009 | 1,224 | 3,325,505 | 10,076,237 | 35,171,627 | 4.02 | 6.1 | 12 | 0.011 | 0.032 | | |
| 2010 | 1,535 | 3,974,410 | 7,655,397 | 35,824,463 | 4.09 | 7.8 | 12 | 0.013 | 0.024 | | |
| 2011 | 1,732 | 4,719,466 | 9,519,364 | 38,723,073 | 4.42 | | 12 | 0.011 | 0.022 | | |
| 2012 | 1,838 | 5,349,753 | 9,245,297 | 41,568,672 | 4.75 | | 12 | 0.012 | 0.020 | | |
| 2013 | 1,392 | 3,359,790 | 6,738,645 | 21,061,946 | 2.40 | | 12 | 0.014 | 0.029 | | |
| 2014 | 1,095 | 3,150,942 | 5,453,380 | 19,118,494 | 2.18 | | 12 | 0.015 | 0.025 | | |
| 2015 | 1,222 | 4,350,865 | 7,604,200 | 23,594,701 | 2.69 | | 12 | 0.017 | 0.029 | | |
| Total | 10,808 | \$ 31,966,305 | \$ 68,303,001 | 246,175,007 | | | 12 | \$ 0.014 | \$ 0.030 | 5.37 | 2.51 |
| Holiday Lighting | | | | | | | | | | | |
| 2008 | 14 | 28,782 | 73,108 | 259,092 | 0.03 | | 10 | 0.014 | 0.035 | | |
| 2009 | 32 | 33,930 | 72,874 | 142,109 | 0.02 | | 10 | 0.031 | 0.066 | | |
| 2010 | 25 | 46,132 | 65,308 | 248,865 | 0.03 | | 10 | 0.024 | 0.034 | | |
| 2011 | 6 | 2,568 | 2,990 | 66,189 | 0.01 | | 10 | 0.004 | 0.005 | | |
| Total | 77 | \$ 111,412 | \$ 214,280 | 716,255 | | | 10 | \$ 0.019 | \$ 0.037 | 2.89 | 1.50 |
| Oregon Commercial Audit | | | | | | | | | | | |
| 2002 | 24 | 5,200 | 5,200 | | | | | | | | |
| 2003 | 21 | 0 | 4,000 | | | | | | | | |
| 2004 | 7 | 0 | 0 | | | | | | | | |
| 2005 | 7 | 5,450 | 5,450 | | | | | | | | |
| 2006 | 6 | | | | | | | | | | |
| 2007 | | 1,981 | 1,981 | | | | | | | | |
| 2008 | | 58 | 58 | | | | | | | | |

Appendix 4. Historical DSM expense and performance, 2002–2015 (continued)

| Program/Year | Participants | Total Costs | | Savings and Demand Reductions | | | Measure Life (Years) | Levelized Costs ^a | | Program Life Benefit/Cost Ratios ^b | |
|-------------------------------|--------------|---------------------------|----------------------------|-------------------------------|-----------------------------------|-------------------------------|----------------------|------------------------------|-------------------------|---|----------------|
| | | Utility Cost ^c | Resource Cost ^d | Annual Energy (kWh) | Average Energy ^e (aMW) | Peak Demand ^f (MW) | | Total Utility (\$/kWh) | Total Resource (\$/kWh) | Utility | Total Resource |
| Commercial | | | | | | | | | | | |
| Oregon Commercial Audit | | | | | | | | | | | |
| 2009 | 41 | \$ 20,732 | \$ 20,732 | | | | | | | | |
| 2010 | 22 | 5,049 | 5,049 | | | | | | | | |
| 2011 | 12 | 13,597 | 13,597 | | | | | | | | |
| 2012 | 14 | 12,470 | 12,470 | | | | | | | | |
| 2013 | 18 | 5,090 | 5,090 | | | | | | | | |
| 2014 | 16 | 9,464 | 9,464 | | | | | | | | |
| 2015 | 17 | 4,251 | 4,251 | | | | | | | | |
| Total | 205 | \$ 83,342 | \$ 87,342 | | | | | | | | |
| Oregon School Efficiency | | | | | | | | | | | |
| 2005 | | 86 | 86 | | | | | | | | |
| 2006 | 6 | 24,379 | 89,771 | 223,368 | 0.03 | | 12 | \$ 0.012 | \$ 0.044 | | |
| Total | 6 | \$ 24,465 | \$ 89,857 | 223,368 | | | 12 | \$ 0.012 | \$ 0.044 | | |
| Irrigation | | | | | | | | | | | |
| Irrigation Efficiency Program | | | | | | | | | | | |
| 2003 | 2 | 41,089 | 54,609 | 36,792 | 0.00 | 0.0 | 15 | 0.106 | 0.141 | | |
| 2004 | 33 | 120,808 | 402,978 | 802,812 | 0.09 | 0.4 | 15 | 0.014 | 0.048 | | |
| 2005 | 38 | 150,577 | 657,460 | 1,012,883 | 0.12 | 0.4 | 15 | 0.014 | 0.062 | | |
| 2006 | 559 | 2,779,620 | 8,514,231 | 16,986,008 | 1.94 | 5.1 | 8 | 0.024 | 0.073 | | |
| 2007 | 816 | 2,001,961 | 8,694,772 | 12,304,073 | 1.40 | 3.4 | 8 | 0.024 | 0.103 | | |
| 2008 | 961 | 2,103,702 | 5,850,778 | 11,746,395 | 1.34 | | 8 | 0.026 | 0.073 | | |
| 2009 | 887 | 2,293,896 | 6,732,268 | 13,157,619 | 1.50 | 3.4 | 8 | 0.026 | 0.077 | | |
| 2010 | 753 | 2,200,814 | 6,968,598 | 10,968,430 | 1.25 | 3.3 | 8 | 0.030 | 0.096 | | |
| 2011 | 880 | 2,360,304 | 13,281,492 | 13,979,833 | 1.60 | 3.8 | 8 | 0.020 | 0.113 | | |
| 2012 | 908 | 2,373,201 | 11,598,185 | 12,617,164 | 1.44 | 3.1 | 8 | 0.022 | 0.110 | | |
| 2013 | 995 | 2,441,386 | 15,223,928 | 18,511,221 | 2.11 | 3.0 | 8 | 0.016 | 0.098 | | |
| 2014 | 1,128 | 2,446,507 | 18,459,781 | 18,463,611 | 2.11 | 4.6 | 8 | 0.016 | 0.119 | | |
| 2015 | 902 | 1,835,711 | 9,939,842 | 14,027,411 | 1.30 | | 8 | 0.016 | 0.085 | | |
| Total | 8,862 | \$ 23,149,577 | \$106,378,922 | 144,614,252 | | | 8 | \$ 0.023 | \$ 0.108 | 4.80 | 1.60 |

Appendix 4. Historical DSM expense and performance, 2002–2015 (continued)

| Program/Year | Participants | Total Costs | | Savings and Demand Reductions | | | Measure Life (Years) | Levelized Costs ^a | | Program Life Benefit/Cost Ratios ^b | |
|------------------------------------|--------------|---------------------------|----------------------------|-------------------------------|-----------------------------------|-------------------------------|----------------------|------------------------------|-------------------------|---|----------------|
| | | Utility Cost ^c | Resource Cost ^d | Annual Energy (kWh) | Average Energy ^e (aMW) | Peak Demand ^f (MW) | | Total Utility (\$/kWh) | Total Resource (\$/kWh) | Utility | Total Resource |
| Other Programs | | | | | | | | | | | |
| Building Operator Training | | | | | | | | | | | |
| 2003 | 71 | \$ 48,853 | \$ 48,853 | 1,825,000 | 0.21 | | 5 | \$ 0.006 | \$ 0.006 | | |
| 2004 | 26 | 43,969 | 43,969 | 650,000 | 0.07 | | 5 | 0.014 | 0.014 | | |
| 2005 | 7 | 1,750 | 4,480 | 434,167 | 0.05 | | 5 | 0.001 | 0.002 | | |
| Total | 104 | \$ 94,572 | \$ 97,302 | 2,909,167 | | | 5 | \$ 0.007 | \$ 0.007 | | |
| Commercial Education Initiative | | | | | | | | | | | |
| 2005 | | 3,497 | 3,497 | | | | | | | | |
| 2006 | | 4,663 | 4,663 | | | | | | | | |
| 2007 | | 26,823 | 26,823 | | | | | | | | |
| 2008 | | 72,738 | 72,738 | | | | | | | | |
| 2009 | | 120,584 | 120,584 | | | | | | | | |
| 2010 | | 68,765 | 68,765 | | | | | | | | |
| 2011 | | 89,856 | 89,856 | | | | | | | | |
| 2012 | | 73,788 | 73,788 | | | | | | | | |
| 2013 | | 66,790 | 66,790 | | | | | | | | |
| 2014 | | 76,606 | 76,606 | | | | | | | | |
| 2015 | | 65,250 | 65,250 | | | | | | | | |
| Total | | \$ 669,360 | \$ 669,360 | | | | | | | | |
| Comprehensive Lighting | | | | | | | | | | | |
| 2011 | | 2,404 | 2,404 | | | | | | | | |
| 2012 | | 64,094 | 64,094 | | | | | | | | |
| Total | | \$ 66,498 | \$ 66,498 | | | | | | | | |
| Distribution Efficiency Initiative | | | | | | | | | | | |
| 2005 | | 3,497 | 3,497 | | | | | | | | |
| 2006 | | 4,663 | 4,663 | | | | | | | | |
| 2007 | | 26,823 | 26,823 | | | | | | | | |
| 2008 | | 72,738 | 72,738 | | | | | | | | |
| Total | | \$ 66,498 | \$ 66,498 | | | | | | | | |

Appendix 4. Historical DSM expense and performance, 2002–2015 (continued)

| Program/Year | Participants | Total Costs | | Savings and Demand Reductions | | | Measure Life (Years) | Levitized Costs ^a | | Program Life Benefit/Cost Ratios ^b | |
|------------------------------|--------------|---------------------------|----------------------------|-------------------------------|-----------------------------------|-------------------------------|----------------------|------------------------------|----------------------|---|----------------|
| | | Utility Cost ^c | Resource Cost ^d | Annual Energy (kWh) | Average Energy ^e (aMW) | Peak Demand ^f (MW) | | Total Utility (/kWh) | Total Resource (kWh) | Utility | Total Resource |
| Other Programs | | | | | | | | | | | |
| DSM Direct Program Overhead | | | | | | | | | | | |
| 2007 | | \$ 56,909 | \$ 56,909 | | | | | | | | |
| 2008 | | 169,911 | 169,911 | | | | | | | | |
| 2009 | | 164,957 | 164,957 | | | | | | | | |
| 2010 | | 117,874 | 117,874 | | | | | | | | |
| 2011 | | 210,477 | 210,477 | | | | | | | | |
| 2012 | | 285,951 | 285,951 | | | | | | | | |
| 2013 | | 380,957 | 380,957 | | | | | | | | |
| 2014 | | 478,658 | 478,658 | | | | | | | | |
| 2015 | | 272,858 | 272,858 | | | | | | | | |
| Total | | \$ 2,138,552 | \$ 2,138,552 | | | | | | | | |
| Local Energy Efficiency Fund | | | | | | | | | | | |
| 2003 | 56 | 5,100 | 5,100 | | | | | | | | |
| 2004 | | 23,449 | 23,449 | | | | | | | | |
| 2005 | 2 | 14,896 | 26,756 | 78,000 | 0.01 | | 10 | \$ 0.024 | \$ 0.042 | | |
| 2006 | 480 | 3,459 | 3,459 | 19,027 | 0.00 | | 7 | 0.009 | 0.009 | | |
| 2007 | 1 | 7,520 | 7,520 | 9,000 | 0.00 | | 7 | 0.135 | 0.135 | | |
| 2008 | 2 | 22,714 | 60,100 | 115,931 | 0.01 | | 15 | 0.019 | 0.049 | | |
| 2009 | 1 | 5,870 | 4,274 | 10,340 | 0.00 | | 12 | 0.064 | 0.047 | | |
| 2010 | 1 | 251 | 251 | | 0.00 | | | | | | |
| 2011 | 1 | 1,026 | 2,052 | 2,028 | | | 30 | 0.036 | 0.071 | | |
| 2012 | | | | | | | | | | | |
| 2013 | | | | | | | | | | | |
| 2014 | 1 | 9,100 | 9,100 | 95,834 | | | 18 | | | | |
| Total | 545 | \$ 93,385 | \$ 142,061 | 330,160 | | | 14 | \$ 0.028 | \$ 0.043 | 2.80 | 1.84 |

Appendix 4. Historical DSM expense and performance, 2002–2015 (continued)

| Program/Year | Participants | Total Costs | | Savings and Demand Reductions | | | Measure Life (Years) | Levelized Costs ^a | | Program Life Benefit/Cost Ratios ^b | |
|----------------------------------|--------------|---------------------------|----------------------------|-------------------------------|-----------------------------------|-------------------------------|----------------------|------------------------------|----------------------|---|----------------|
| | | Utility Cost ^c | Resource Cost ^d | Annual Energy (kWh) | Average Energy ^e (aMW) | Peak Demand ^f (MW) | | Total Utility (/kWh) | Total Resource (kWh) | Utility | Total Resource |
| Other Programs | | | | | | | | | | | |
| Other C&RD and CRC BPA | | | | | | | | | | | |
| 2002 | | \$ 55,722 | \$ 55,722 | | | | | | | | |
| 2003 | | 67,012 | 67,012 | | | | | | | | |
| 2004 | | 108,191 | 108,191 | | | | | | | | |
| 2005 | | 101,177 | 101,177 | | | | | | | | |
| 2006 | | 124,956 | 124,956 | | | | | | | | |
| 2007 | | 31,645 | 31,645 | | | | | | | | |
| 2008 | | 6,950 | 6,950 | | | | | | | | |
| Total | | \$ 495,654 | \$ 495,654 | | | | | | | | |
| Residential Economizer Pilot | | | | | | | | | | | |
| 2011 | | 101,713 | 101,713 | | | | | | | | |
| 2012 | | 93,491 | 93,491 | | | | | | | | |
| 2013 | | 74,901 | 74,901 | | | | | | | | |
| Total | | \$ 270,105 | \$ 270,105 | | | | | | | | |
| Residential Education Initiative | | | | | | | | | | | |
| 2005 | | 7,498 | 7,498 | | | | | | | | |
| 2006 | | 56,727 | 56,727 | | | | | | | | |
| 2007 | | | | | | | | | | | |
| 2008 | | 150,917 | 150,917 | | | | | | | | |
| 2009 | | 193,653 | 193,653 | | | | | | | | |
| 2010 | | 222,092 | 222,092 | | | | | | | | |
| 2011 | | 159,645 | 159,645 | | | | | | | | |
| 2012 | | 174,738 | 174,738 | | | | | | | | |
| 2013 | | 416,166 | 416,166 | | | | | | | | |
| 2014 | 6,312 | 423,091 | 423,091 | 1,491,225 | | | 10 | | | | |
| 2015 | | 149,903 | 149,903 | | | | | | | | |
| Total | 6,312 | \$ 1,954,430 | \$ 1,954,430 | 1,491,225 | | | 10 | | | | |
| Shade Tree Project | | | | | | | | | | | |
| 2014 | 2,041 | 147,290 | 147,290 | | | | | | | | |
| 2015 | 1,925 | 105,392 | 105,392 | | | | | | | | |
| Total | 3,966 | \$ 252,682 | \$ 252,682 | | | | | | | | |

Appendix 4. Historical DSM expense and performance, 2002–2015 (continued)

| Program/Year | Participants | Total Costs | | Savings and Demand Reductions | | | Measure Life (Years) | Levelized Costs ^a | | Program Life Benefit/Cost Ratios ^b | |
|--------------------------------|--------------|---------------------------|----------------------------|-------------------------------|-----------------------------------|-------------------------------|----------------------|------------------------------|----------------------|---|----------------|
| | | Utility Cost ^c | Resource Cost ^d | Annual Energy (kWh) | Average Energy ^e (aMW) | Peak Demand ^f (MW) | | Total Utility (/kWh) | Total Resource (kWh) | Utility | Total Resource |
| Other Programs | | | | | | | | | | | |
| Solar 4R Schools | | | | | | | | | | | |
| 2009 | | \$ 42,522 | \$ 42,522 | | | | | | | | |
| Total | | \$ 42,522 | \$ 42,522 | | | | | | | | |
| Market Transformation | | | | | | | | | | | |
| Consumer Electronic Initiative | | | | | | | | | | | |
| 2002 | | 160,762 | 160,762 | | | | | | | | |
| Total | | \$ 160,762 | \$ 160,762 | | | | | | | | |
| NEEA | | | | | | | | | | | |
| 2002 | | 1,286,632 | 1,286,632 | 12,925,450 | 1.48 | | | | | | |
| 2003 | | 1,292,748 | 1,292,748 | 11,991,580 | 1.37 | | | | | | |
| 2004 | | 1,256,611 | 1,256,611 | 13,329,071 | 1.52 | | | | | | |
| 2005 | | 476,891 | 476,891 | 16,422,224 | 1.87 | | | | | | |
| 2006 | | 930,455 | 930,455 | 18,597,955 | 2.12 | | | | | | |
| 2007 | | 893,340 | 893,340 | 28,601,410 | 3.27 | | | | | | |
| 2008 | | 942,014 | 942,014 | 21,024,279 | 2.40 | | | | | | |
| 2009 | | 968,263 | 968,263 | 10,702,998 | 1.22 | | | | | | |
| 2010 | | 2,391,217 | 2,391,217 | 21,300,366 | 2.43 | | | | | | |
| 2011 | | 3,108,393 | 3,108,393 | 20,161,728 | 2.30 | | | | | | |
| 2012 | | 3,379,756 | 3,379,756 | 19,567,984 | 2.23 | | | | | | |
| 2013 | | 3,313,058 | 3,313,058 | 20,567,965 | 2.35 | | | | | | |
| 2014 | | 3,305,917 | 3,305,917 | 26,805,600 | 3.06 | | | | | | |
| 2015 | | 2,582,919 | 2,582,919 | 21,900,000 | 2.50 | | | | | | |
| Total | | \$ 26,128,213 | \$ 26,128,213 | 263,898,611 | | | | | | | |
| Annual Totals | | | | | | | | | | | |
| 2002 | | 1,932,520 | 2,366,591 | 16,791,100 | 1.92 | 0 | | | | | |
| 2003 | | 2,566,228 | 3,125,572 | 18,654,343 | 2.12 | 0 | | | | | |
| 2004 | | 3,827,213 | 4,860,912 | 19,202,780 | 2.19 | 7 | | | | | |
| 2005 | | 6,523,348 | 10,383,577 | 37,978,035 | 4.34 | 44 | | | | | |
| 2006 | | 11,174,181 | 20,950,110 | 67,026,303 | 7.65 | 44 | | | | | |

Appendix 4. Historical DSM expense and performance, 2002–2015 (continued)

| Program/Year | Participants | Total Costs | | Savings and Demand Reductions | | | Measure Life (Years) | Levelized Costs ^a | | Program Life Benefit/Cost Ratios ^b | |
|-----------------------------------|--------------|---------------------------|----------------------------|-------------------------------|-----------------------------------|-------------------------------|----------------------|------------------------------|----------------------|---|----------------|
| | | Utility Cost ^c | Resource Cost ^d | Annual Energy (kWh) | Average Energy ^e (aMW) | Peak Demand ^f (MW) | | Total Utility (/kWh) | Total Resource (kWh) | Utility | Total Resource |
| Annual Totals | | | | | | | | | | | |
| 2007 | | \$ 14,896,816 | \$ 27,123,018 | 91,145,357 | 10.40 | 59 | | | | | |
| 2008 | | 20,213,216 | 44,775,829 | 128,508,579 | 14.67 | 75 | | | | | |
| 2009 | | 33,821,062 | 53,090,852 | 143,146,365 | 16.34 | 236 | | | | | |
| 2010 | | 44,643,541 | 68,981,324 | 193,592,637 | 22.10 | 358 | | | | | |
| 2011 | | 44,877,117 | 79,436,532 | 183,476,312 | 20.94 | 420 | | | | | |
| 2012 | | 47,991,350 | 77,336,341 | 172,054,327 | 19.64 | 454 | | | | | |
| 2013 | | 26,100,091 | 54,803,353 | 109,505,690 | 12.23 | 55 | | | | | |
| 2014 | | 35,648,260 | 71,372,414 | 145,475,713 | 16.40 | 390 | | | | | |
| 2015 | | 37,149,893 | 70,487,117 | 162,533,155 | 18.27 | 367 | | | | | |
| Total Direct Program | | \$ 331,364,836 | \$ 589,093,543 | 1,489,090,696 | | | | | | | |
| Indirect Program Expenses | | | | | | | | | | | |
| DSM Overhead and Other Indirect | | | | | | | | | | | |
| 2002 | | 128,855 | | | | | | | | | |
| 2003 | | (41,543) | | | | | | | | | |
| 2004 | | 142,337 | | | | | | | | | |
| 2005 | | 177,624 | | | | | | | | | |
| 2006 | | 309,832 | | | | | | | | | |
| 2007 | | 765,561 | | | | | | | | | |
| 2008 | | 980,305 | | | | | | | | | |
| 2009 | | 1,025,704 | | | | | | | | | |
| 2010 | | 1,189,310 | | | | | | | | | |
| 2011 | | 1,389,135 | | | | | | | | | |
| 2012 | | 1,335,509 | | | | | | | | | |
| 2013 | | 741,287 | | | | | | | | | |
| 2014 | | 1,065,072 | | | | | | | | | |
| 2015 | | 1,891,042 | | | | | | | | | |
| Total | | \$ 11,100,030 | | | | | | | | | |

Appendix 4. Historical DSM expense and performance, 2002–2015 (continued)

| Program/Year | Participants | Total Costs | | Savings and Demand Reductions | | | Measure Life (Years) | Levelized Costs ^a | | Program Life Benefit/Cost Ratios ^b | |
|------------------------------|--------------|---------------------------|----------------------------|-------------------------------|-----------------------------------|-------------------------------|----------------------|------------------------------|----------------------|---|----------------|
| | | Utility Cost ^c | Resource Cost ^d | Annual Energy (kWh) | Average Energy ^e (aMW) | Peak Demand ^f (MW) | | Total Utility (/kWh) | Total Resource (kWh) | Utility | Total Resource |
| Total Expenses | | | | | | | | | | | |
| 2002 | | 2,061,375 | | | | | | | | | |
| 2003 | | 2,524,685 | | | | | | | | | |
| 2004 | | 3,969,550 | | | | | | | | | |
| 2005 | | 6,700,972 | | | | | | | | | |
| 2006 | | 11,484,013 | | | | | | | | | |
| 2007 | | 15,662,377 | | | | | | | | | |
| 2008 | | 21,193,521 | | | | | | | | | |
| 2009 | | 34,846,766 | | | | | | | | | |
| 2010 | | 45,832,851 | | | | | | | | | |
| 2011 | | 46,266,252 | | | | | | | | | |
| 2012 | | 49,326,859 | | | | | | | | | |
| 2013 | | 26,841,378 | | | | | | | | | |
| 2014 | | 36,713,333 | | | | | | | | | |
| 2015 | | 39,040,935 | | | | | | | | | |
| Total 2012–2015 | | \$ 342,464,866 | | | | | | | | | |

^a Levelized Costs are based on financial inputs from Idaho Power's 2013 *Integrated Resource Plan* and calculations include line loss adjusted energy savings.

^b Program life benefit/cost ratios are provided for active programs only.

^c The Total Utility Cost is all cost incurred by Idaho Power to implement and manage a DSM program.

^d 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.

^e Average Demand = Annual Energy/8,760 annual hours.

^f Peak Demand is reported for programs that directly reduce load or measure demand reductions during summer peak season. Peak demand reduction for demand response programs is reported at the generation level assuming 9.7 percent peak line losses.

¹ Savings are preliminary funder share estimates. Final results will be provided by NEEA in May 2016.

Appendix 5. 2015 DSM program activity by state jurisdiction

| Program | Idaho | | | Oregon | | |
|---|----------------------------------|-------------------|--|--------------------------------|----------------|--|
| | Participants | Utility Costs | Demand Reduction/ Annual Energy Savings | Participants | Utility Costs | Demand Reduction/ Annual Energy Savings |
| Demand Response | | | | | | |
| A/C Cool Credit ¹ | 28,623 homes | 1,103,107 | 36 | 377 homes | 45,828 | 0.5 |
| Irrigation Peak Rewards ¹ | 2,203 service points | 7,035,398 | 297 | 56 service points | 223,433 | 8 |
| Flex Peak Program ¹ | 66 sites | 373,218 | 12 | 6 sites | 219,654 | 14 |
| Total | | 8,511,723 | 345 | | 488,915 | 22 |
| Energy Efficiency | | | | | | |
| Residential | | | | | | |
| Easy Savings | 2,068 kits | 127,477 | 624,536 | 0 kits | 0 | 0 |
| Educational Distributions | 28,197 kits/bulbs | 432,185 | 1,669,495 | 0 kits/bulbs | 0 | 0 |
| Energy Efficient Lighting | 1,290,323 bulbs | 2,002,582 | 15,358,150 | 52,932 bulbs | 60,800 | 517,967 |
| Energy House Calls | 337 homes | 199,047 | 705,149 | 25 homes | 15,057 | 49,497 |
| ENERGY STAR [®] Homes Northwest | 598 homes | 650,982 | 773,812 | 0 homes | 2,692 | 0 |
| ENERGY STAR [®] Homes Northwest (gas fuel) | 69 homes | 0 | 46,872 | 0 homes | 0 | 0 |
| Heating & Cooling Efficiency Program/DHP Pilot | 415 projects | 601,183 | 1,466,057 | 12 projects | 25,186 | 36,115 |
| Home Energy Audit | 351 audits | 201,957 | 136,002 | 0 audits | 0 | 0 |
| Home Improvement Program | 408 projects | 272,509 | 303,580 | 0 projects | 0 | 0 |
| Oregon Residential Weatherization | 0 homes | 0 | 0 | 19 homes | 5,808 | 11,910 |
| Rebate Advantage | 55 homes | 81,087 | 340,589 | 3 homes | 4,351 | 18,094 |
| See ya later, refrigerator [®] | 1,592 refrigerators/ freezers | 215,681 | 703,277 | 38 refrigerators/ freezers | 11,497 | 16,931 |
| Simple Steps, Smart Savings [™] /Home Products Program | 8,817 appliances/ showerheads | 132,420 | 729,013 | 523 appliances/ showerheads | 6,676 | 41,809 |
| Weatherization Assistance for Qualified Customers | 233 homes/ non-profits | 1,278,159 | 529,426 | 10 homes/ non-profits | 36,873 | 20,595 |
| Weatherization Solutions for Eligible Customers | 171 homes | 1,243,269 | 432,958 | 0 homes | 0 | 0 |
| Sector Total | | 7,438,537 | 23,818,916 | | 168,941 | 712,918 |
| Commercial | | | | | | |
| Building Efficiency | 81 projects | 2,145,926 | 23,232,017 | 0 projects | 16,075 | 0 |
| Custom Efficiency | 152 projects | 8,407,993 | 50,554,517 | 8 projects | 604,636 | 4,692,675 |
| Easy Upgrades | 1,181 projects | 4,173,151 | 22,866,677 | 41 projects | 177,713 | 728,024 |
| Sector Total | | 14,727,070 | 96,653,211 | | 798,424 | 5,420,699 |

Appendix 5. 2015 DSM program activity by state jurisdiction (continued)

| Program | Idaho | | | Oregon | | |
|---|--------------|-------------------|--|--------------|------------------|--|
| | Participants | Utility Costs | Demand Reduction/ Annual Energy Savings | Participants | Utility Costs | Demand Reduction/ Annual Energy Savings |
| Irrigation | | | | | | |
| Irrigation Efficiency Rewards | 887 projects | 1,773,253 | 13,856,301 | 15 projects | 62,459 | 171,110 |
| Sector Total | | 1,773,253 | 13,856,301 | | 62,459 | 171,110 |
| Market Transformation | | | | | | |
| Northwest Energy Efficiency Alliance ¹ | | 2,453,773 | 20,805,000 | | 129,146 | 1,095,000 |
| Other Programs and Activities | | | | | | |
| Residential | | | | | | |
| Energy Efficiency Education Initiative | | 142,512 | | | 7,391 | |
| Shade Tree Project..... | | 105,459 | | | (66) | |
| Commercial | | | | | | |
| Commercial Education..... | | 61,987 | | | 3,262 | |
| Oregon Commercial Audits..... | | 0 | | | 4,251 | |
| Other | | | | | | |
| Energy Efficiency Direct Program Overhead..... | | 259,645 | | | 13,214 | |
| Total Program Direct Expense | | 35,473,958 | | | 1,675,936 | |
| Indirect Program Expenses..... | | 1,795,599 | | | 95,443 | |
| Total Annual Savings | | | 155,133,428 | | | 7,399,727 |
| Total DSM Expense | | 37,269,557 | | | 1,771,378 | |

¹ Savings are preliminary funder share estimates provided by NEEA. Final savings for 2015 will be provided by NEEA May 2016.

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