March 15, 2015

IDAHO POWER®
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APPENDIX B
DSM Annual Report

Integrated Resource Plan 2015

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.

June 2015

IDAHO POWER
An IDACORP Company

APPENDIX B
DSM Annual Report

Integrated Resource Plan 2015

ACKNOWLEDGMENT

Resource planning is an ongoing process at Idaho Power. Idaho Power prepares, files, and publishes an Integrated Resource Plan every two years. Idaho Power expects that the experience gained over the next few years will likely modify the 20-year resource plan presented in this document.

Idaho Power invited outside participation to help develop the *2015 Integrated Resource Plan*. Idaho Power values the knowledgeable input, comments, and discussion provided by the Integrated Resource Plan Advisory Council and other concerned citizens and customers.

It takes approximately one year for a dedicated team of individuals at Idaho Power to prepare the Integrated Resource Plan. The Idaho Power team is comprised of individuals that represent many different departments within the company. The Integrated Resource Plan team members are responsible for preparing forecasts, working with the advisory council and the public, and performing all the analyses necessary to prepare the resource plan.

Idaho Power looks forward to continuing the resource planning process with customers, public interest groups, regulatory agencies, and other interested parties. You can learn more about the Idaho Power resource planning process at www.idahopower.com.

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GLOSSARY OF ACRONYMS

A/C—Air Conditioning/Air Conditioners

ADM—ADM Associates, Inc.

Ads—Advertisement

AHU—Air Handling Unit

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

BCW—Boise Center West

BML—Building Metrics Labeling

BOC—Boise Operations Center

BOMA—Building Owners and Managers Association

BPA—Bonneville Power Administration

BSUG—Building Simulation Users Group

CAES—Center for Advanced Energy Studies

CAIS—Certified Agricultural Irrigation Specialist

CAP—Community Action Partnership

CAPAI—Community Action Partnership Association of Idaho, Inc.

CCOA—CCOA—Aging, Weatherization and Human Services

CEERI—CAE's Energy Efficiency Research Institute

CEL—Cost-Effective Limit

CER—Community Education Representative

CFL—Compact Fluorescent Lamp/Light

CHQ—Corporate Headquarters (Idaho Power)

CID—Certified Irrigation Designer

CLEAResult—CLEAResult Consulting, Inc. (acquired Fluid Market Strategies and PECI)

CLRIS—Customer Load and Resource Information System

COP—Coefficient of Performance

CR—Customer Representative (field staff)

CR&EE—Customer Relations and Energy Efficiency Department

CRES—Certified Refrigeration Energy Specialist

CSR—Customer Service Representative (call center)

CTR—Click-Through Rate

CWI—College of Western Idaho

DEAP—Design Excellence Award Program

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

EER—Energy Efficiency Ratio

EISA—*Energy Independence and Security Act of 2007*

EM&V—Evaluation, Measurement, and Verification

ETO—Energy Trust of Oregon

EPA—Environmental Protection Agency

EUI—Energy Use Intensity

FCA—Fixed-Cost Adjustment

FFA—Future Farmers of America

FMP—Facility Management Professional

ft^2—Square Feet

ft^3—Cubic Feet

GIS—Geographic Information System

GMPG—Green Motors Practice Group

GPM—Gallons per Minute

H&CE—Heating & Cooling Efficiency Program

hp—Horsepower

HPWH—Heat Pump Water Heater

HPS—Home Performance Specialist

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

IDHW—Idaho Department of Health and Welfare

IDL—Integrated Design Lab (in Boise)

IECC—International Energy Conservation Code

IFMA—International Facility Management Association

INL—Idaho National Laboratory

IPMVP—International Performance Measurement and Verification Protocol

IPUC—Idaho Public Utilities Commission

IRP—Integrated Resource Plan

IRPAC—Integrated Resource Plan Advisory Council

iSTEM—Idaho Science, Technology, Engineering and Mathematics

JACO—JACO Environmental, Inc.

kW—Kilowatt

kWh—Kilowatt-hour

LED—Light-Emitting Diode

LEEF—Local Energy Efficiency Funds

LIHEAP—Low Income Home Energy Assistance Program

M&V—Measurement & Verification

MCR— Major Customer Representative

MDC—MDC Research

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

NEF—National Energy Foundation

NEMA—National Electrical Manufacturers Association

NWPCC—Northwest Power and Conservation Council

NWRRC—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—Power-Line Carrier

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

ROI—Return on Investment

RPP—Retail Products Platform

RSAT—Regional Sales Allocation Tool

RSE—Runyon Saltzman Einhorn

RTF—Regional Technical Forum

RWLR—Reduced Wattage Lamp Replacement

SCCT—Simple-Cycle Combustion Turbine

SCE—Streamlined Custom Efficiency

SCO—State-Certifying Organization

SEEK—Students for Energy Efficiency Kit

SIR—Savings-to-Investment Ratio

SIS—Scientific Irrigation Scheduling

SKU—Stock Keeping Unit

SOX—*Sarbanes–Oxley Act of 2002*

SRVBCA—Snake River Valley Building Contractors Association

T&D—Transmission and Distribution

TLL—Tool Loan Library

TOD—Time of Day

TRC—Total Resource Cost

TRM—Technical Reference Manual

UC—Utility Cost

UES—Unit Energy Savings

US—United States

USFS—United States Forest Service

VFD—Variable-Frequency Drive

VOC—Volatile Organic Compound

VRF—Variable-Refrigerant Flow

VRI—Variable-Rate Irrigation

VSI—Variable-Speed Irrigation

WAP—Weatherization Assistance Program

WAQC—Weatherization Assistance for Qualified Customers

WRUN—Western Regional Utility Network

WSEEC—Water Supply Energy Efficiency Cohort

WWEEC—Wastewater Energy Efficiency Cohort

EXECUTIVE SUMMARY

Idaho Power has effectively operated demand-side management (DSM) programs starting with load control programs around 1945 and adding energy efficiency programs beginning in the 1970s. Through the years, the company has maintained a successful DSM portfolio, including both energy efficiency and demand response programs.

Idaho Power's 2014 energy savings exceeded the annual savings target identified in Idaho Power's 2013 *Integrated Resource Plan* (IRP), and the company has exceeded those annual targets 12 out of 13 years. On a cumulative basis, the company's energy savings have exceeded the IRP targets every year since 2002. Additionally in 2014, the Customer Relations and Energy Efficiency (CR&EE) department contributed to the development of the 2015 IRP, including refreshing Idaho Power's *Energy Efficiency Potential Study*.

Idaho Power's portfolio of energy efficiency programs is cost-effective, passing both the total resource cost (TRC) test and the utility cost (UC) test with ratios of 1.89 and 3.49, respectively. Idaho Power's annual energy savings increased by 33 percent in 2014, with the energy efficiency programs saving enough energy to supply electricity to over 9,000 average homes a year. The savings from Idaho Power's energy efficiency programs alone (excluding Northwest Energy Efficiency Alliance [NEEA] savings) increased from 88,938 megawatt-hours (MWh) in 2013 to 118,670 MWh in 2014. Annual energy savings for 2013, including the revised NEEA savings, were 109,506 MWh. In 2014, these savings increased to 138,670 MWh.

Customers' familiarity with Idaho Power's energy efficiency programs meets or exceeds the average of peer utilities according to the J. D. Power and Associates electric utility customer satisfaction studies. Idaho Power has exceeded the average of its peer utilities every year in the last four years with its awareness of business programs, and the company has met or exceeded the average of its peer utilities five out of the last six years with its awareness of residential programs.

In 2014, Idaho Power worked diligently with NEEA and its funders to procure a new plan for regional market transformation. This effort resulted in a 2015 to 2019 NEEA business plan to obtain 145 aMW of energy savings at a cost of about $3 million less over the next five years to Idaho Power customers than the previous five-year business plan.

Idaho Power successfully resumed two of its demand response programs in 2014. The company used all three demand response programs in 2014 for a total demand reduction of 378 megawatts (MW) and an enrolled capacity of 390 MW. The reduced costs of these programs resulted in savings to Idaho Power customers of approximately $6.5 million dollars, with only a slight reduction in capacity of 11 percent from 2012. These strong demand response results are attributable to Idaho Power's collaborative efforts with a multitude of stakeholders.

Idaho Power enhanced its marketing, public relations, and research methods during 2014. These enhancements included the use of public television, new distribution methods for its energy efficiency newspaper inserts, focus groups, and social media. The company will continue with innovative techniques in 2015, including airport signage, broadcast and online radio, television, and feedback from Idaho Power's online customer research panel.

Early in 2014, Idaho Power formed a Program Planning Group to explore new opportunities to expand current energy efficiency programs and offerings. This group ushered new ideas through an assessment

process that will yield new offerings to the DSM program portfolio in 2015. In 2014, Idaho Power also increased the incentive paid under its commercial and industrial programs and made several changes to its commercial/industrial lighting measures based on input from stakeholders.

Energy efficiency program 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 37 percent, from $27 million in 2013 to $37 million in 2014.

Idaho Power takes its responsibility of prudently managing customer funds seriously. The company's actions in 2014, and this report's content, provide evidence supporting the conscientious work Idaho Power employees and leaders have made toward using customers' funds wisely. Some highlights include the demand response settlement, the resulting outcome of restarting the demand response programs, and the establishment of the NEEA contract for the 2015 to 2019 funding cycle. The company believes it is important to provide maximum value to its customers.

This *Demand-Side Management 2014 Annual Report* provides a review of the company's DSM activities and finances throughout 2014 and outlines Idaho Power's plans for DSM activities. This report also satisfies the reporting requirements set out in the Idaho Public Utilities Commission's (IPUC) Order Nos. 29026 and 29419, as well as the Memorandum of Understanding (MOU) signed by IPUC staff and Idaho investor-owned utilities in January 2010. Additionally, a courtesy copy of the report will be provided under Oregon Docket UM 1710 to facilitate review of program and measure cost-effectiveness.

INTRODUCTION

In 2014, Idaho Power continued its long history of pursuing cost-effective energy efficiency. Through the years, the company has maintained a successful demand-side management (DSM) portfolio, including both energy efficiency and demand response programs. This report focuses on the years after 2002 when the Idaho Energy Efficiency Rider (Rider) began.

More specifically, Idaho Power's *Demand-Side Management 2014 Annual Report* provides a review of the financial and operational performance of Idaho Power's DSM activities and initiatives for 2014. In 2014, Idaho Power offered energy efficiency and demand response programs to all customer sectors. The company sponsored numerous activities under its customer education initiatives to improve customers' energy awareness and to educate them about reducing their electricity usage.

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. In addition to cost-effectiveness, Idaho Power 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 usage. 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.

Idaho Power's portfolio of energy efficiency programs is cost-effective, passing both the total resource cost (TRC) test and the utility cost (UC) test with ratios of 1.89 and 3.49, respectively. The energy savings from Idaho Power's energy efficiency programs in 2014 were 118,670 megawatt-hours (MWh)—enough to power over 9,000 average homes a year. The savings consisted of 21,267 MWh from the residential sector, 28,577 MWh from the commercial sector, 50,363 MWh from the industrial sector, and 18,464 MWh from the irrigation sector. This represents a 33 percent increase from 2013 savings. The industrial Custom Efficiency program contributed 43 percent of the portfolio savings, while residential lighting contributed 61 percent of the residential savings.

Beyond its energy efficiency incentive programs, Idaho Power increased its energy efficiency presence in the community by providing energy efficiency and program information through 116 outreach activities, including events, presentations, trainings, and other outreach activities documented in the company's Outreach Tracking System. In addition to these activities, Idaho Power staff throughout Idaho Power's service area delivered 164 presentations to local organizations addressing energy efficiency programs and wise energy use. In 2014, Idaho Power's Community Education team provided 67 presentations on *The Power to Make a Difference* to 1,756 students. The community education representatives (CER) and other staff also completed 32 senior citizen presentations on energy efficiency programs and shared information about saving energy to 912 seniors in the company's service area. In September 2014, Idaho Power participated in the FitOne Expo in Boise, Idaho. At this event, the booth theme capitalized on light-emitting diode (LED) lighting imagery from the integrated campaign launched in August and previewed the energy-efficient interactive home graphic in the background. Idaho Power staff at the event educated attendees about the benefits of LED lighting technology and distributed 2,500 LED light bulbs to an engaged and receptive audience.

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 and education. In 2014, the Commercial Education Initiative worked with and supported various organizations, including the University of Idaho's Integrated Design Lab (IDL) in Boise; Building Owners and Managers Association (BOMA); United States (US) Green Building Council; American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE); International Building Operators Association (IBOA); and the International Facility Management Association (IFMA)—Northern Rockies Chapter to increase customers' energy efficiency knowledge.

Idaho Power's internal commitment to energy efficiency and sustainability increased in 2014. Several Idaho Power properties were enhanced in 2014 with the goal of improving energy efficiency. Numerous corporate headquarters (CHQ) remodel projects were completed in 2014. These remodels included high-efficiency lighting; heating, ventilation, and air conditioning (HVAC); and reflective and better-insulated roofing. The CHQ fourth floor was completely remodeled with new recycled carpet, low volatile organic compound (VOC) paint, and low-partition walls for increased light transmission throughout the floor. At the Boise Operations Center (BOC), Idaho Power installed building-wide Direct Digital Control system controls. At Boise Center West (BCW) the chillers and air handlers were replaced with high-efficiency units. Additionally, Idaho Power's CHQ continued to participate in the FlexPeak Management program, reducing its load when the program was used.

The company was successful in redesigning and reestablishing the Irrigation Peak Rewards and A/C Cool Credit programs in 2014. After a one-season suspension of these programs, participation was only slightly reduced. Each of the demand response programs, including FlexPeak Management, was used three times in the 2014 season for a total demand reduction of 378 MW and an enrolled capacity of 390 megawatts (MW).

Idaho Power uses the same report structure each year to fulfill the objectives of the Memorandum of Understanding (MOU) signed on January 25, 2010, by Idaho Power, Idaho Public Utilities Commission (IPUC) staff, and Idaho's other investor-owned utilities. The 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 2014, the company continued its commitment to third-party evaluation activities. Included in *Supplement 2: Evaluation* are copies of all of Idaho Power's 2014 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 will be provided under Oregon Docket UM 1710 to facilitate review of program and measure cost-effectiveness.

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, 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.

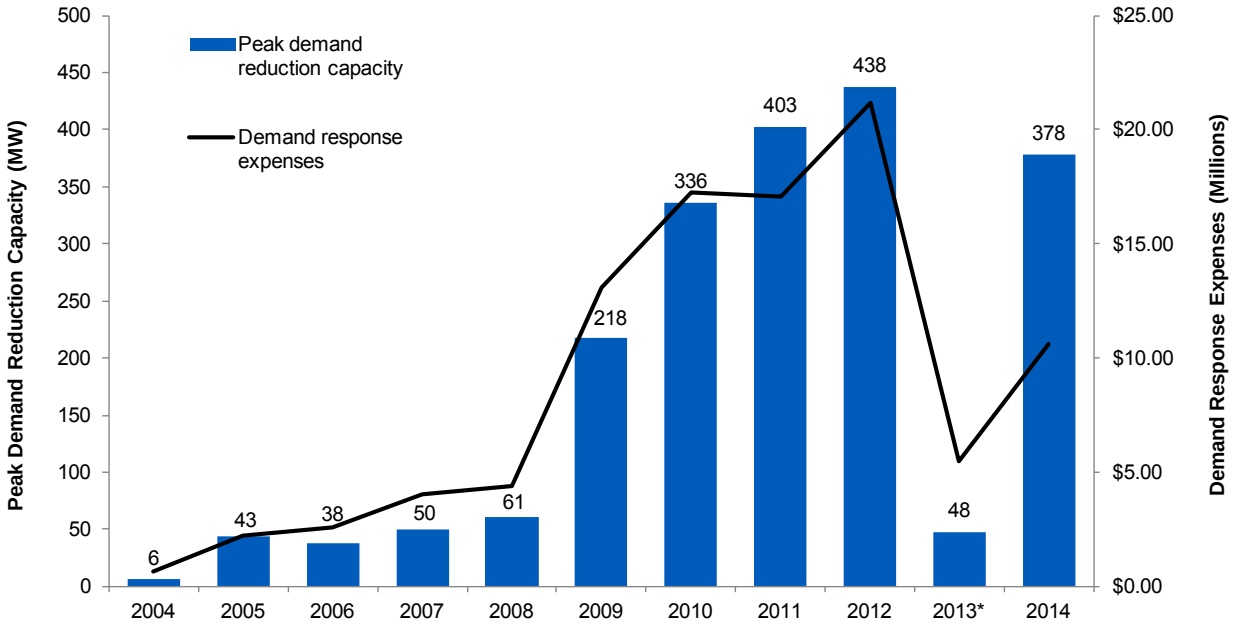

Figure 1. Peak demand-reduction capacity and demand response expenses, 2004–2014 (MW and millions [$])

*In 2013, two of the three demand response programs were temporarily suspended.

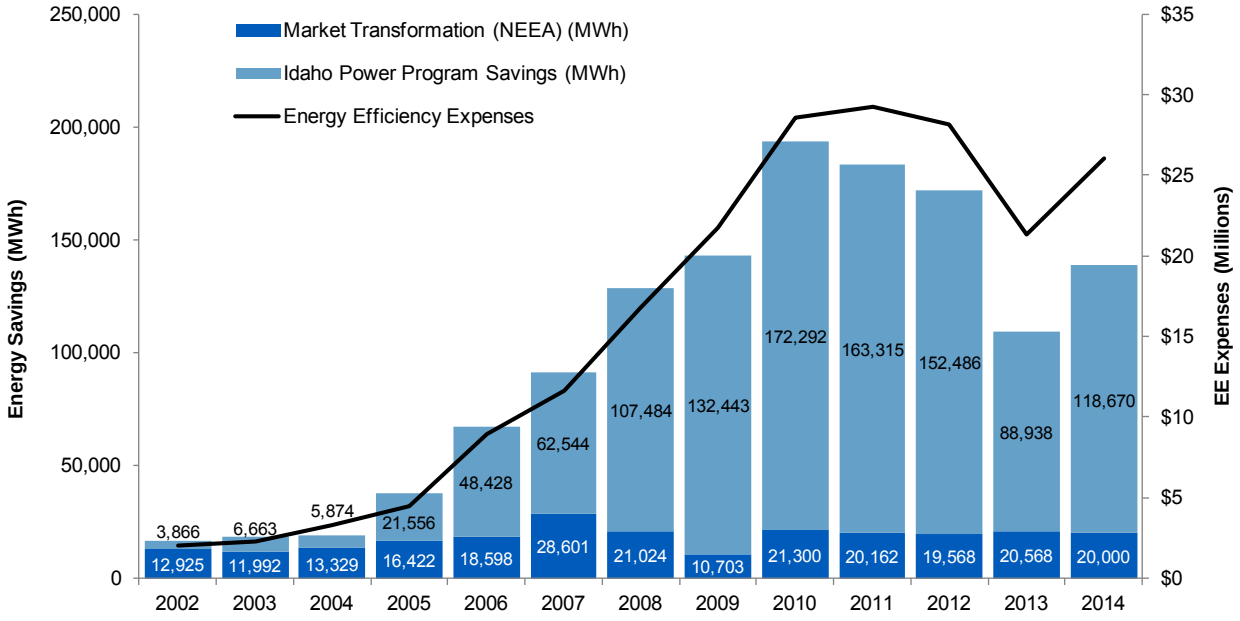

Figure 2. Annual energy savings and energy efficiency program expenses, 2002–2014 (MWh and millions [$])

*In 2013, two of the three demand response programs were temporarily suspended.

Note: 2014 market transformation savings (Northwest Energy Efficiency Alliance [NEEA]) are a preliminary estimate.

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

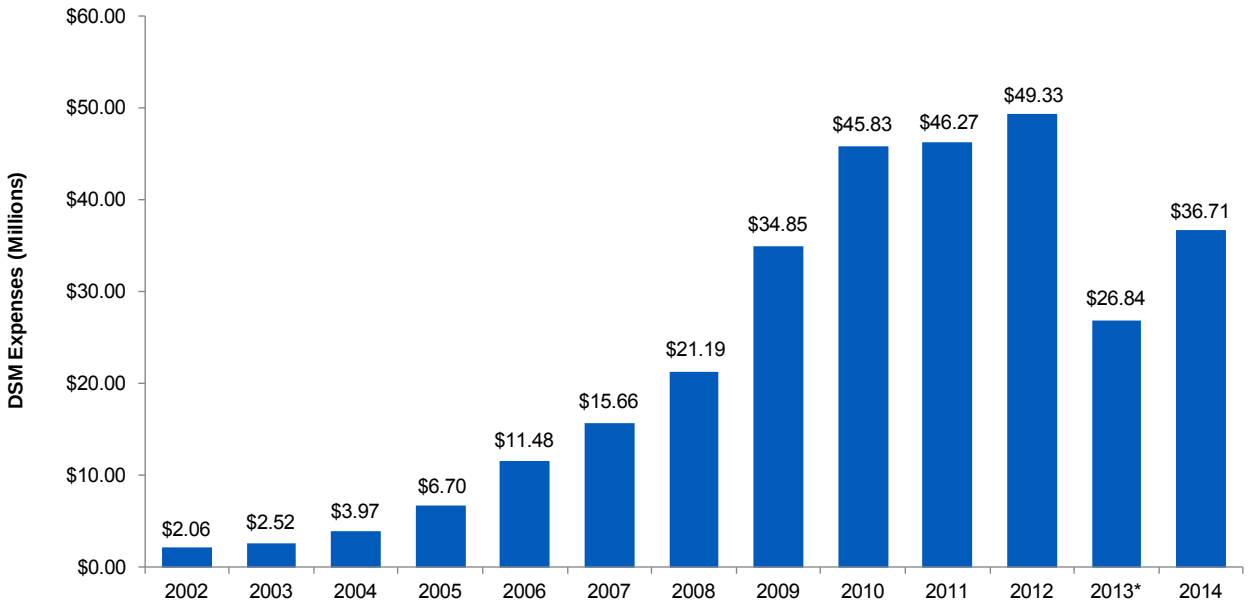

Figure 3. DSM expense history, 2002–2014 (millions of dollars)

*In 2013, two of the three demand response programs were temporarily suspended.

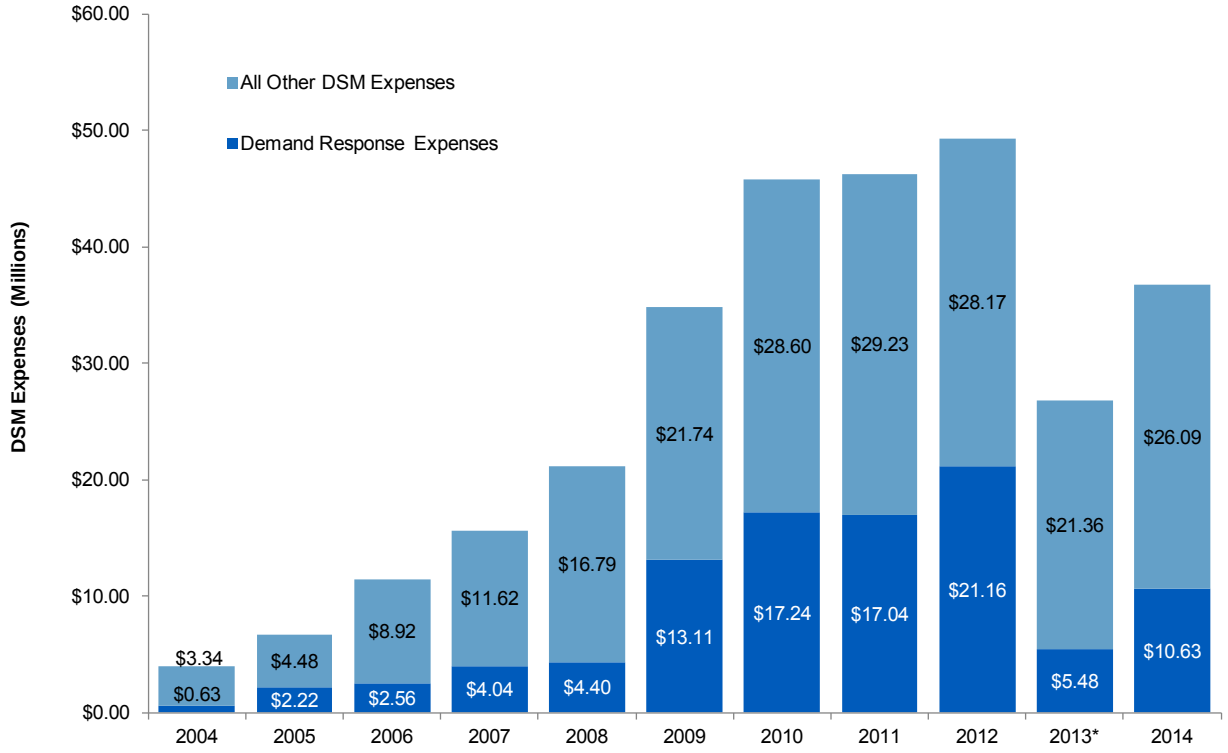

Figure 4. DSM expense history by program type, 2004–2014 (millions of dollars)

*In 2013, two of the three demand response programs were temporarily suspended.

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

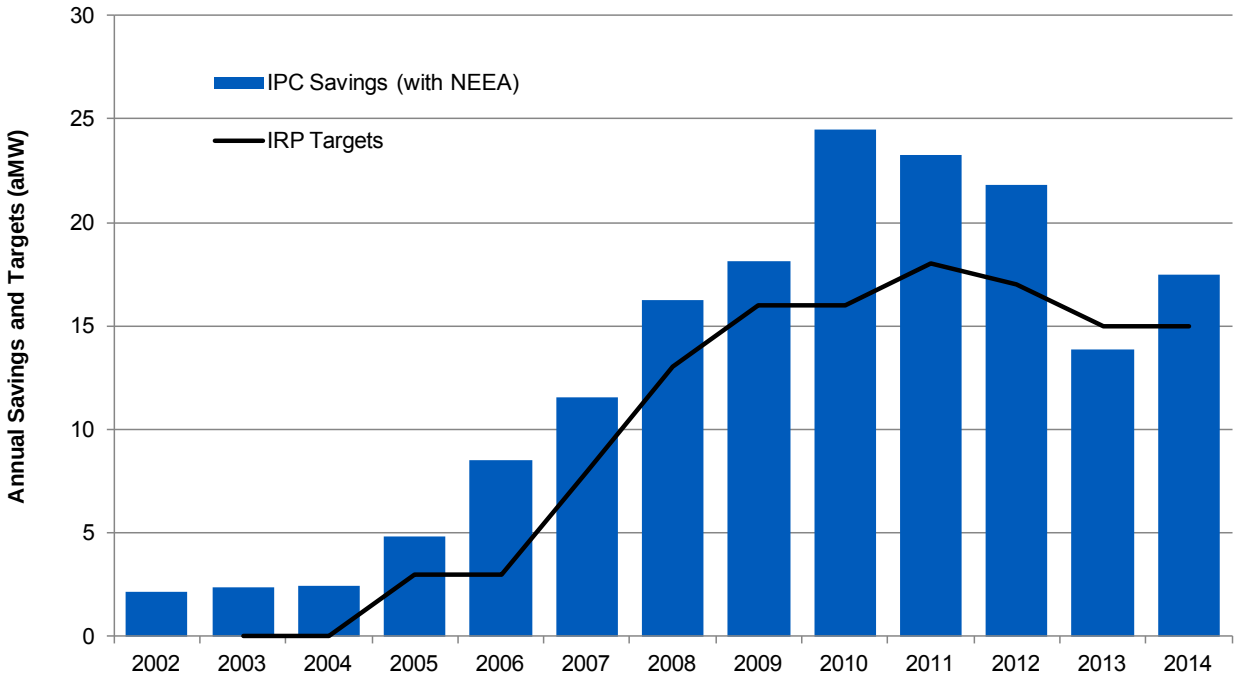

Figure 5. Annual incremental energy efficiency savings (aMW) compared with IRP targets (2002–2014)

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

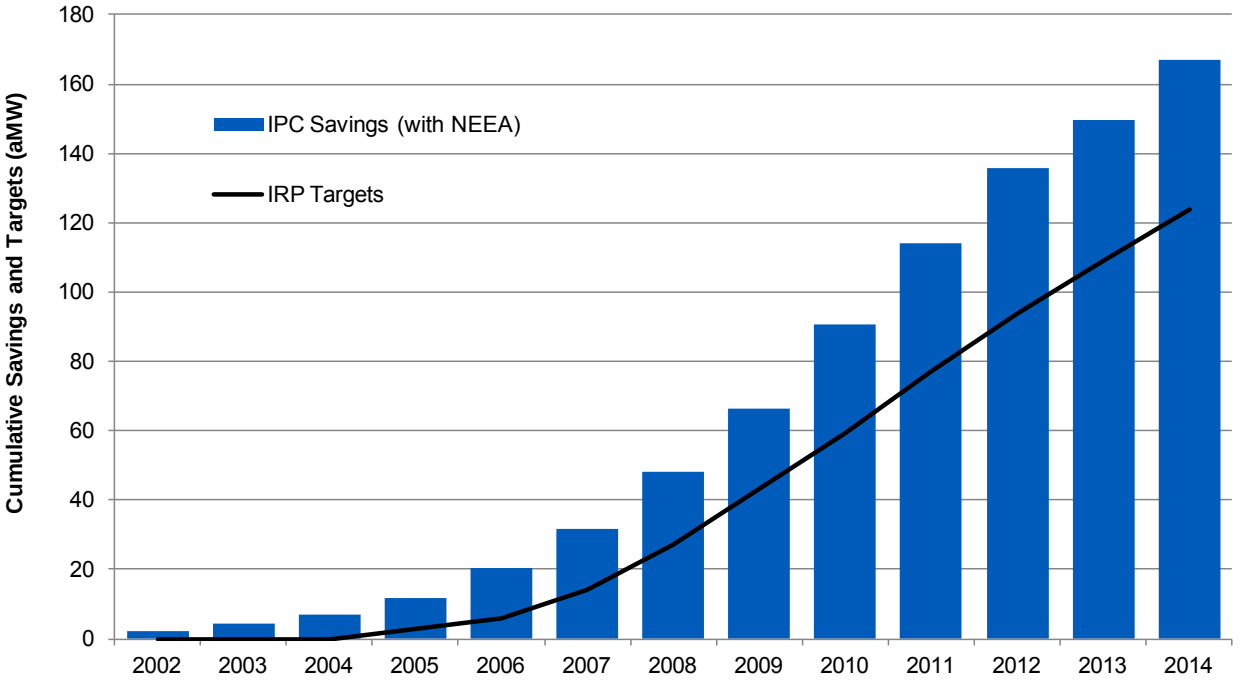

Figure 6. Annual cumulative energy efficiency savings (aMW) compared with IRP targets (2002–2014)

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.

Idaho Power's successful demand response portfolio was acknowledged in an article in the March 6, 2015, issue of Clearing Up, a monthly newsletter produced by ENERGY NEWSDATA. Clearing Up is a weekly newsletter update on energy policy, resource development, and energy market news in the Pacific Northwest region and western Canada. The article stated Idaho Power is the regional utility with the most experience in using demand response to reduce peak loads.

In summer 2014, Idaho Power had a combined maximum demand response capacity of 390 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 390 MW is calculated using total enrolled MW from participants with an expected maximum realization rate on 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, 100 percent of nominated demand from FlexPeak Management, and 1.1 kW per participant for A/C Cool Credit. In 2014, the actual non-coincidental load reduction from all three programs was approximately 378 MW. This number was lower than 390 MW primarily because the Irrigation Peak Rewards did not achieve its maximum realization rate due to equipment maintenance problems that existed with irrigation devices. On Monday, July 14, 2014, the company used all three of its demand response programs together and achieved a coincident load reduction of approximately 356 MW.

The IRP analysis uses extreme load and weather assumptions to identify the need for resources. In 2014, Idaho Power did not experience extreme conditions; however, the company demonstrated successful operation of the programs on the three minimum events for each program. Program participation and readiness for the A/C Cool Credit and the Irrigation Peak Rewards programs were significant considering these two programs were temporarily suspended for a season. Idaho Power temporarily suspended these two demand response programs for summer 2013 under IPUC Case No. IPC-E-12-29 and Tariff Advice No. 13-04 with the OPUC. However, through IPUC Case No. IPC-E-13-14 (Order No. 32923) and OPUC Case No. UM 1653 (Order No. 13-482), Idaho Power and interested parties reached a settlement agreement to continue the company's demand response programs for 2014 and beyond. In 2014, these programs cost $10.6 million; had the programs been used for the maximum number of hours, the cost would have been approximately $13.8 million. These costs represent approximately $6 million dollars in savings compared to 2012 and are significantly less than the value of $16.7 million agreed on in the settlement agreement.

Energy Efficiency Programs

Idaho Power's energy efficiency programs focus on reducing energy usage 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, like in 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 heat pump 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 systems 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-savings projects.

Market Transformation

Market transformation achieves energy savings through engaging and influencing large national and regional companies and organizations. These organizations influence the design of energy efficiency into products, services, and practices that improve their energy efficiency. Idaho Power achieves market transformation savings primarily through its participation in the Northwest Energy Efficiency Alliance (NEEA). Idaho Power has been a funding member of NEEA since its inception in 1997.

The fifth year of NEEA's current, five-year funding cycle ended in 2014. 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. During 2014, the company continued to advocate for this model through multiple meetings with NEEA, by actively participating on the NEEA Board of Directors and exploring alternative funding models, and by chairing and serving on the Alternative Funding Model Working Group Committee of the NEEA Board of Directors. 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. In 2014, Idaho Power executed an agreement to continue its participation in NEEA for the 2015 to 2019 funding cycle and chose not to participate in some of the optional programs and activities where it believes it is providing or can 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 to customers. These awareness efforts increase customer demand for, and satisfaction with, Idaho Power's programs and activities. These activities include customer outreach, research, project development, and education programs. This category includes the Residential Energy Efficiency Education Initiative, Easy Savings Program, Commercial Education Initiative, Local Energy Efficiency Funds (LEEF), and Student Energy Efficiency Kit (SEEK) program.

Program Planning Group

In early 2014, Idaho Power convened a Program Planning Group (previously referred to as the New Ideas team) 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 2014, the group met weekly and formalized a process for new ideas to be evaluated. Among other things, the group identified a process for submitting new offering ideas for consideration, determined a consistent screening process for submitted ideas, and provided a mechanism to record and track the status of opportunities considered, including the rationale for decisions made.

In 2014, 18 new ideas were introduced to the team. Three of those ideas have been identified as viable energy efficiency offerings and will be incorporated into the Heating & Cooling Efficiency (H&CE) Program in 2015. They are Single-Family Home Duct Sealing, which is prescriptive duct-sealing for heat pumps and electric resistance heated homes; Residential Electronically Commutated Motor (ECM), which is the more efficient replacement for a failed permanent split capacitor (PSC) motors with ECMs in forced-air systems; and a Residential Whole House Fan Pilot, which is the installation of a whole house fan between a home's attic and the conditioned space that displaces forced air and zonal direct expansion cooling.

Two other offerings have been presented to the Energy Efficiency Advisory Group (EEAG) and have been implemented or are being implemented in 2015. They are Energy Efficiency Kits for High School, which includes age-appropriate curriculum and energy efficiency kit components (such as LEDs and efficient showerheads), and LED bulbs given away at events for promotional and educational and market transformation purposes. Other ideas include distributing clothes drying racks for promotional and educational purposes, smart thermostats, and a small-business offering.

Idaho Power will continue to use the Program Planning Group to receive, evaluate, and deliver new energy efficiency offerings in 2015 and beyond.

Table 1 provides a list of 2014 DSM programs and their respective sectors, operational type, state each was available, and associated energy savings.

Table 1. 2014 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	44 MW
Ductless Heat Pump Pilot	Energy Efficiency	ID/OR	463 MWh
Energy Efficient Lighting	Energy Efficiency	ID/OR	12,882 MWh
Energy House Calls	Energy Efficiency	ID/OR	579 MWh
ENERGY STAR® Homes Northwest	Energy Efficiency	ID/OR	528 MWh
Heating & Cooling Efficiency Program	Energy Efficiency	ID/OR	1,099 MWh
Home Energy Audit	Energy Efficiency	ID	141 MWh
Home Improvement Program	Energy Efficiency	ID	839 MWh
Home Products Program	Energy Efficiency	ID/OR	652 MWh
Local Energy Efficiency Funds	Other Programs and Activities	ID/OR	96 MWh
Oregon Residential Weatherization	Energy Efficiency	OR	11 MWh
Rebate Advantage	Energy Efficiency	ID/OR	270 MWh
Residential Energy Efficiency Education Initiative	Other Programs and Activities	ID/OR	1,491 MWh
See ya later, refrigerator®	Energy Efficiency	ID/OR	1,391 MWh
Shade Tree Project	Other Programs and Activities	ID	n/a
Weatherization Assistance for Qualified Customers	Energy Efficiency	ID/OR	534 MWh
Weatherization Solutions for Eligible Customers	Energy Efficiency	ID	291 MWh
Commercial/Industrial			
Building Efficiency	Energy Efficiency	ID/OR	9,458 MWh
Commercial Education Initiative	Other Programs and Activities	ID/OR	n/a
Custom Efficiency	Energy Efficiency	ID/OR	50,363 MWh
Easy Upgrades	Energy Efficiency	ID/OR	19,118 MWh
FlexPeak Management	Demand Response	ID/OR	40 MW
Oregon Commercial Audits	Energy Efficiency	OR	n/a
Irrigation			
Irrigation Efficiency Rewards	Energy Efficiency	ID/OR	18,464 MWh
Irrigation Peak Rewards	Demand Response	ID/OR	295 MW
All Sectors			
Northwest Energy Efficiency Alliance	Market Transformation	ID/OR	20,000 MWh

Table 2 shows the 2014 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 2014 contribution of each sector in terms of energy usage and its respective size in 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. Program sector summary and energy usage/savings/demand reduction

	Energy Efficiency Program Impacts				Idaho Power System Sales		
	Program Expenses	Energy Savings (kWh)	Average Energy (aMW)	Peak Load Reduction (MW)	Sector Total (MWh)	Percentage of Energy Usage	Number of Customers
Residential	$ 6,372,640	21,171,063	2.5		5,034,531	35.54%	428,294
Commercial	4,409,215	28,576,553	3.3	1.2	3,962,785	27.97%	67,522
Industrial	7,173,054	50,363,052	5.7	5.6	3,203,975	22.61%	118
Irrigation	2,446,507	18,463,611	2.1	4.6	1,966,297	13.88%	18,773
Market Transformation	3,305,917	20,000,000	2.3	n/a			
Demand Response	10,626,070	n/a	n/a	378			
Other Programs and Activities	2,379,929	95,834	0.0	n/a			
Total Program Expenses	**$ 36,713,332**	**138,670,112**	**16.0**	**390.0**	**14,167,588**	**100.00%**	**514,707**

2014 Regulatory Activities

On March 14, 2014, Idaho Power filed Case No. IPC-E-14-04 with the IPUC requesting an order finding the company had prudently incurred $25,951,486 in DSM expenses in 2013, including $21,748,331 in Idaho Rider expenses and $4,203,155 in demand response program incentive expenses. In Order No. 33161, dated November 4, 2014, the IPUC deemed $25,951,486 as prudently incurred.

The commission issued an Errata to Order No. 33161, dated November 7, 2014, directing Idaho Power and other parties to do an in-depth review of issues raised by staff and other parties in the company's next IRP process. Idaho Power convened a DSM Working Group that met twice in December 2014 and examined how energy efficiency was treated in the resource planning process, as discussed in the Regulatory Overview section of this report.

Program Evaluation

Idaho Power considers program evaluation an essential component of its DSM operational activities. In accordance with the 2010 MOU with the IPUC staff, 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 as 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 2014, Idaho Power completed five program impact evaluations and three program process evaluations using third-party contractors. Johnson Consulting Group conducted process evaluations of the Home Energy Audit program and Shade Tree Project, Tetra Tech, MA conducted impact evaluations of the residential Energy Efficient Lighting and Northwest ENERGY STAR® Homes programs, CLEAResult Consulting, Inc. (CLEAResult) (acquired Fluid Market Strategies and PECI) conducted impact evaluations of the Irrigation Peak Rewards and A/C Cool Credit program 2014 test events, and Evergreen Economics conducted an impact evaluation on the Custom Efficiency program as well as a process evaluation of the new Streamlined Custom Efficiency (SCE) and Refrigeration Operator Coaching for Energy Efficiency (ROCEE) program offerings. Idaho Power also contracted with Applied Energy Group to update the 2012 energy efficiency potential analysis.

Throughout 2014, Idaho Power administered surveys on several programs to measure program satisfaction. Participant surveys were conducted for A/C Cool Credit, Energy House Calls, Home Energy Audit, Shade Tree Project, Weatherization Assistance for Qualified Customers (WAQC), and Weatherization Solutions for Eligible Customers. In addition to these participant surveys, a non-participant survey was issued for Energy House Calls to gain a better understanding of customers' awareness of the program.

In 2014, Idaho Power received the research results for Custom Efficiency, Building Efficiency, and Easy Upgrades. In 2013, the company selected Market Decisions Corporation to conduct customer research for the Custom Efficiency program and ADM Associates, Inc., to produce a technical reference manual for the Building Efficiency and Easy Upgrades programs.

Final reports from all evaluations, research, and surveys completed in 2014 and an evaluation schedule are provided in *Supplement 2: Evaluation*.

Customer Satisfaction

In 2014, based on surveys conducted in 2013, Idaho Power ranked sixth out of nine utilities included in the west region midsize segment of the J.D. Power and Associates *2014 Electric Utility Business Customer Satisfaction Study*. Fifty-six 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. The awareness of Idaho Power's energy efficiency programs not only affects the customer's overall satisfaction with the company but also his/her satisfaction with corporate citizenship.

In 2014, based on surveys conducted in the last six months of 2013 and the first six months of 2014, Idaho Power ranked 8 out of 13 utilities included in the west region midsize segment of the J.D. Power and Associates *2014 Electric Utility Residential Customer Satisfaction Study*. Forty-seven 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. Awareness of Idaho Power's energy efficiency programs improves customers' perceptions regarding price by 13 percent.

Since 1995, Idaho Power has employed 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 2014 results of Idaho Power's quarterly customer relationship survey showed a slight increase in overall satisfaction from the previous year. Customers' perception of Idaho Power's energy efficiency efforts increased from 57 percent at the end of 2013 to 62 percent in late 2014. Figure 7 depicts the quarterly change in the percent of customers who indicated Idaho Power met or exceeded their needs concerning energy efficiency efforts encouraged by Idaho Power.

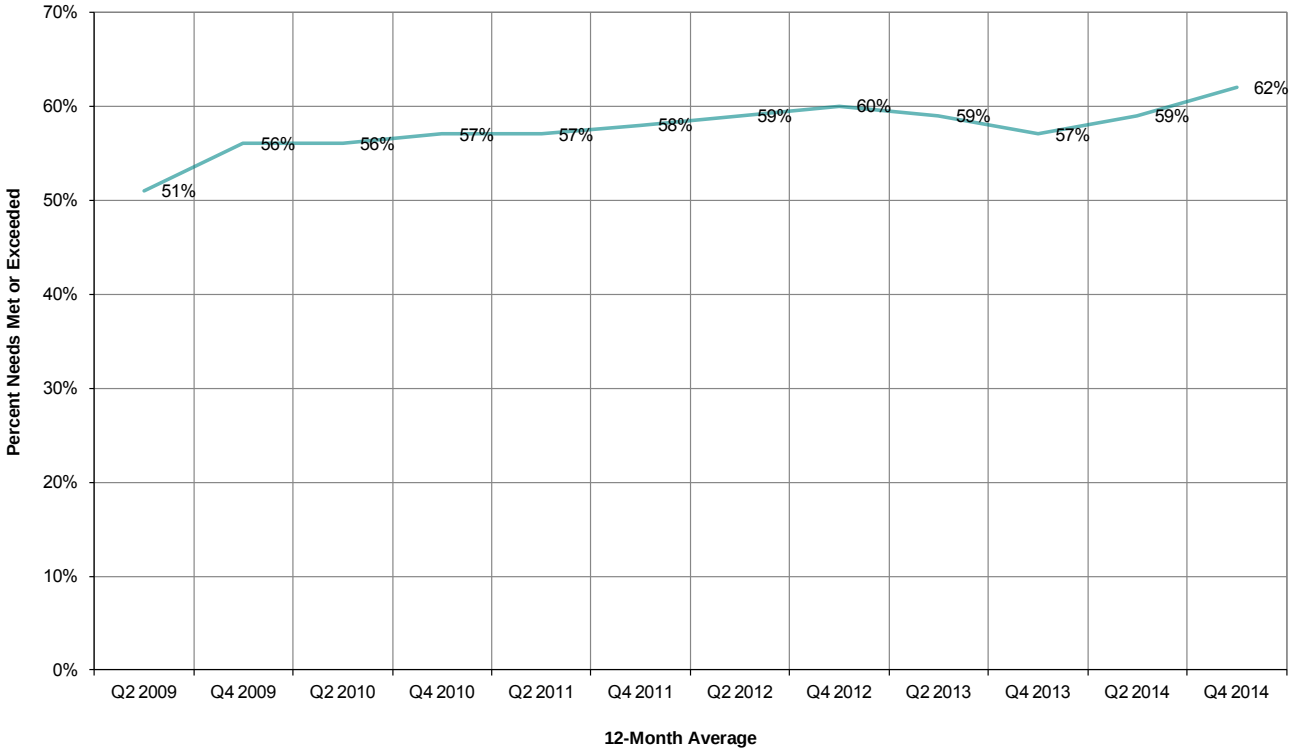

Figure 7. Percent of customers whose needs are met or exceeded by Idaho Power's energy efficiency efforts

Three questions related to energy efficiency programs in the general relationship survey continued in the 2014 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 2014, 37 percent of the survey respondents across all sectors indicated they participated in at least one Idaho Power energy efficiency program. Of survey respondents who participated in at least one Idaho Power energy efficiency program, 90 percent are "very" or "somewhat" satisfied with the program(s).

Due to a concern of over-surveying program participants, and because the measures and specifics of most program designs do not change annually, Idaho Power will not survey most program participants 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. Because of Idaho Power's 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. Incorporated in these models are inputs from sources that use the most current and reliable information available. 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'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 indeed offered, the company explains why the measure or program was implemented or continued. The company believes this aligns with the expectations delineated in the MOU under IPUC Case No. IPC-E-09-09 and OPUC Order No. 94-590.

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 2014. These B/C ratios are provided as a measure of cost-effectiveness for all Idaho Power energy efficiency or demand response programs currently being offered where energy savings and demand reduction are realized. As in 2013, the actual historic savings and expenses are not discounted; only the value of the ongoing savings going forward 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*.

In 2014, Idaho Power reviewed its policy to update measure energy savings throughout the year. In the past, when energy savings assumptions were updated during the calendar year by third parties, such as the RTF or an evaluator, Idaho Power immediately applied those assumptions retroactively for the entire year. This caused issues when budgets and goals were set at the beginning of the year using one set of assumptions and those assumptions changed mid-year, making it appear some programs were not meeting their original goals. It has been recommended in previous process evaluations that the company "freeze" savings assumptions at a certain point and update assumptions once a year. After reviewing the practices of other utilities around the region and the impact of these frequent updates to program specialists and field staff, the company established a policy to freeze 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. As a general rule, the 2014 energy savings reported for most programs will use the assumptions set at the beginning of the year. These assumptions will be discussed in more detail in the cost-effectiveness sections for each program.

The method used to determine the cost-effectiveness of the demand response programs was updated in 2014. As part of the public workshops on Case No. IPC-E-13-14, Idaho Power and other stakeholders agreed on a new method for valuing demand response. The settlement agreement was approved in 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 2014, the cost of operating the three demand response programs was $10.6 million. Idaho Power estimates that if the three programs were dispatched for the full 60 hours, the total costs would have been approximately $13.8 million and would have remained cost-effective.

New DSM alternative costs from Idaho Power's 2013 IRP affected the cost-effectiveness of the company's programs and measures in 2014. The 2013 IRP was acknowledged by the IPUC in Order No. 32980 on February 24, 2014, and by the OPUC in Order No. 14-253 on July 8, 2014. The 2013 IRP planning process resulted in a significant drop in the DSM alternative costs used to value energy efficiency compared with previous IRPs. While impacts vary from program to program depending on measure life and the end uses, decreases of program benefits of up to 40 to 50 percent have been seen. Multiple factors led to the reduction of the DSM alternative costs, but two of the primary impacts included a reduced carbon adder used in the 2013 IRP process and decreases in early-year natural gas price forecasts. While these benefit reductions have placed more burden on program cost-effectiveness, some of the impact has been mitigated by the recent addition of quantified non-energy benefits (NEB) in the region.

Idaho Power's portfolio of energy efficiency programs is cost-effective, passing both the TRC test and the UC test with ratios of 1.89 and 3.49, respectively. The company's energy efficiency programs' sector portfolios were also cost-effective from a TRC test and UC test perspective.

In 2014, most of Idaho Power's energy efficiency programs were cost-effective, except the Ductless Heat Pump (DHP) Pilot, ENERGY STAR Homes Northwest, See ya later, refrigerator ®, and the weatherization programs for income-qualified customers.

The DHP Pilot and the ENERGY STAR Homes Northwest program were both cost-effective under the UC test but failed the TRC test with ratios of 0.70 and 0.83, respectively.

In fall 2013, the RTF approved DHP annual savings estimates for customers not screened for supplemental fuel use. In November, the RTF presented its findings and recommendation on the inclusion of health benefits to be part of the cost-effective benefits in the cost-effective analysis of measures and programs, which would increase the NEBs and increase the TRC. The RTF is waiting on the Northwest Power and Conservation Council's (NWPCC) guidance on the issue.

In 2014, 8 of 243 ENERGY STAR Homes Northwest homes were single-family homes and 235 were townhomes. Due to the lower kWh savings for townhomes versus single-family homes and the ratio of townhomes, the program was shown not to be cost-effective from a TRC perspective for 2014. NEEA is planning to transition the Northwest ENERGY STAR Homes program to the national Environmental Protection Agency (EPA) ENERGY STAR Homes program. A second program, NEEA's Next Step

Home program, is still in the pilot stage. Idaho Power will monitor these potential changes to the program for possible implementation in the future.

See ya later, refrigerator® has a UC and TRC of 0.86. The lower cost-effectiveness ratios in 2014 over 2013 are largely due to the updated 2013 IRP DSM alternative costs. In 2014, the RTF updated the energy-savings assumptions for freezer and refrigerator decommissioning and included estimates for NEBs. The updated energy savings and NEB assumptions will be applied in 2015 along with the planned program changes in 2015. The program is expected to be cost-effective in 2015.

WAQC had a TRC of 0.42, and Weatherization Solutions for Eligible Customers had a TRC of 0.50. The cost-effectiveness ratios were impacted by the change in DSM alternative costs and the updated per-home savings. Despite the fact that Idaho Power adopted the IPUC staff's recommendations from Case No. GNR E-12-01 for calculating the programs' cost-effectiveness and the company worked with third-party contractors to improve the audit tool for the Weatherization Solutions for Eligible Customers program, improve savings estimates, and reduce costs, these programs remain not cost-effective. Refer to the specific program sections for more detail.

Thirty nine 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 NEBs, 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

	2014 B/C Tests		
Program/Sector	**UC**	**TRC**	**PCT**
Ductless Heat Pump Pilot	1.77	0.70	1.01
Energy Efficient Lighting	2.98	1.99	2.67
Energy House Calls	2.16	2.16	N/A
ENERGY STAR Homes Northwest	1.64	0.83	1.41
Heating and Cooling Efficiency Program	3.74	1.09	1.45
Home Improvement Program	4.17	1.51	2.39
Home Products Program	1.94	4.52	7.28
Rebate Advantage	4.39	3.23	6.21
See ya later, refrigerator®	0.86	0.86	N/A
Students for Energy Efficiency Kit	2.18	3.02	N/A
Weatherization Assistance for Qualified Customers	0.51	0.42	N/A
Weatherization Solutions for Eligible Customers	0.46	0.50	N/A
Residential Energy Efficiency Sector	**1.88**	**1.51**	**2.68**
Building Efficiency	5.05	2.08	2.27
Custom Efficiency	4.72	2.52	2.00
Easy Upgrades	4.08	2.35	2.85
Commercial/Industrial Energy Efficiency Sector	**4.58**	**2.42**	**2.24**
Irrigation Efficiency	5.67	1.83	1.63
Irrigation Energy Efficiency Sector	**5.67**	**1.83**	**1.63**
Energy Efficiency Portfolio	**3.49**	**1.89**	**2.09**

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. 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.

In 2015, Idaho Power plans to increase participation in, and energy savings from, existing energy efficiency programs and initiatives. 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 Program Planning Group.

In 2015, Idaho Power will 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* to align with the expectations of the MOU established in IPUC Case N. IPC-E-09-09.

In 2015, Idaho Power will continue with a number of major remodels on the CHQ buildings downtown starting with the remodel of parts of CHQ sixth and seventh floors. The company will begin remodels on the CHQ eighth floor in 2016. Remodels will incorporate energy efficiency items, such as lower partitions, lighting retrofits, and lighting controls.

DSM EXPENDITURES

Funding for DSM programs in 2014 came from several sources. The Idaho and Oregon Rider funds are collected directly from customers on their monthly bills. For 2014, the Idaho Rider was 4 percent of base-rate revenues. The 2014 Oregon Rider was 3 percent of base-rate revenues. Additionally, Idaho-related demand response program incentives were paid through base rates and the annual power cost adjustment (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 $36.7 million in 2014. At the beginning of 2014, the Idaho Rider balance was approximately $6.7 million, and by December 31, 2014, the balance was negative $0.8 million. At the beginning of the year, the Oregon Rider negative balance was approximately $3.7 million, and by year-end, the negative balance was $3.9 million.

Table 4 shows the total expenditures funded by the Idaho Rider, $25,556,089; the Oregon Rider, $1,325,865; and non-rider funding, $9,831,379, resulting in Idaho Power's total DSM expenditures of $36,713,333. The non-rider funding category includes Idaho Power demand response incentives, WAQC expenses, and O&M costs.

Table 4. 2014 funding source and energy savings

Funding Source	Expenses	MWh Savings
Idaho Rider	$ 25,556,089	$ 131,383
Oregon Rider	1,325,865	6,753
Non-Rider Funding	9,831,379	534
Total	**$ 36,713,333**	**138,670**

Table 5 and Figure 8 indicate 2014 DSM program expenditures by category. The expenses in the Other Expense category include marketing ($671,408), program evaluation ($350,135), and program training ($318,357). 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; 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.

Table 5. 2014 DSM program expenditure by category

	Total	% of Total
Incentive Expense	$ 21,169,645	58%
Labor/Administrative Expense	3,139,448	9%
Materials & Equipment	52,473	0%
Other Expense	1,610,466	4%
Purchased Services	10,741,301	29%
Total 2014 Rider Expenditures, by Category	**$ 36,713,333**	**100%**

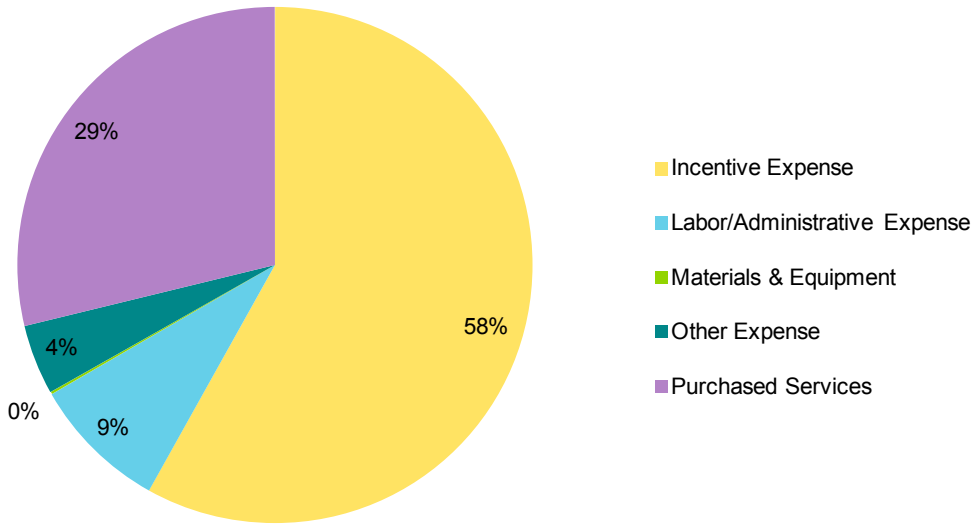

Figure 8. 2014 DSM program expenditures by category

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. 2014 DSM program incentives by segment and sector

	Sector Total	% of Total
DR[a]—Residential	$ 445,046	2%
DR—Commercial/Industrial	1,502,163	7%
DR—Irrigation	6,107,828	29%
EE[b]—Irrigation	2,170,220	10%
EE—Residential	2,333,594	11%
EE—Commercial/Industrial	8,610,794	41%
Total Incentive Expense	**$ 21,169,645**	**100%**

[a] DR = demand response
[b] EE = energy efficiency

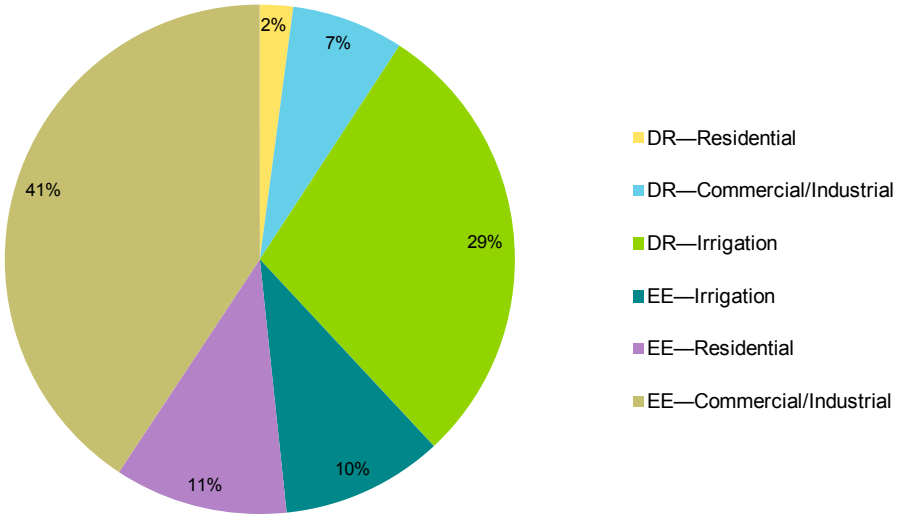

Figure 9. 2014 DSM program incentives by segment and sector

MARKETING

Idaho Power used a variety of marketing, public relations, and research methods during 2014. The company will continue with innovative techniques in 2015. The following describes a selection of the methods, approaches, and tactics.

In spring 2014, Idaho Power contracted with MDC Research (MDC) to conduct four focus groups in Boise, Caldwell, Pocatello, and Twin Falls. The research objective was to gather customer feedback on current and future communication efforts. Each focus group had 9 or 10 participants. Key findings showed that 1) when prompted, recall of bill inserts and the *Connections* monthly newsletter was very high; 2) customers were most interested in topics related to rate changes, energy efficiency, and how to reduce their bills; 3) there was little differentiation between advertising and other types of communication; 4) many participants did not recall specific advertisements (ad), but the more engaged customers were able to recall specific ads, particularly those dealing with safety and program offerings.

To conduct the focus groups, Idaho Power converted space in the CHQ to administer focus groups. A one-way mirror, chairs, and video/audio equipment were installed.

In the second half of the year, Idaho Power hired a contractor to set up and manage an online panel. The purpose of the panel is to solicit customer feedback on a number of company-wide topics, including energy efficiency. Members of the panel may be sent surveys, print ads, videos, and questions to provide feedback on areas, such as program design, messaging, and graphics.

Idaho Power named the online panel the em**powered** community. The online panel will consist of Idaho Power residential customers who agree to participate in monthly online research on a variety of topics. The panel will incorporate customer opinions, values, and motivators into company planning and strategies at a lower cost and with less lead-time than contracting with different marketing research firms. Monthly surveys/queries of the community are anticipated throughout the year. More details regarding the spring 2015 launch are provided in the 2015 marketing plans section below.

To keep abreast of current trends, Idaho Power attended an International Direct Marketing Association Conference in San Diego, a Community-Based Social Marketing Workshop in Seattle, a live online course on the psychology of marketing, and a live online course on integrated marketing.

In fall 2014, the company took advantage of an earned media opportunity by participating in monthly energy efficiency segments on the KTVB-TV afternoon news program with Idaho Power's customer relations and energy efficiency manager. The segments, which began in October, focused on energy efficiency tips for residential customers, including weatherizing a home, the benefits of LED lighting, and how to receive an Idaho Power energy efficiency guide.

In regard to employee energy efficiency education, in previous years Idaho Power conducted an internal campaign to educate employees about the company's energy efficiency programs. After talking to field employees and regional managers, Idaho Power decided the most effective way to capture employee attention was through a video they could watch on their own time. The company created a humorous educational script mimicking Saturday Night Live's *Weekend Update* sketch. Professional actors, an Idaho Power manager, and an Idaho Power executive played characters in the sketch. The company emailed the video to all employees in fall 2014, and it received positive reviews. As of December 31, 2014, 1,057 employees—over half of the company's employees— viewed the video, thereby enhancing awareness of the programs.

Two guides were designed to educate and motivate customers to participate in energy efficiency programs and take energy efficiency actions at home. Through the customer focus groups conducted in 2014, the company researched the importance of energy efficiency communications and evaluated the readership and effectiveness of energy efficiency guides. One of the findings was that most of the customers in the focus group found the information valuable yet many had not seen the publication.

Historically, Idaho Power used public relations to help make customers aware of the seasonal energy efficiency guides. For the first time in fall 2014, Idaho Power used several marketing tactics to test demand for and explore other distribution channels for the *Fall Energy Efficiency Guide* and the 96-page booklet *30 Simple Things You Can Do to Save Energy*. Marketing tactics used to drive demand for the guide included an ad in the November issue of *Connections* sent to 415,000 customers, over 40,000 bill inserts in residential customer bills in November, and a digital ad campaign from October 25 to November 23 that garnered 514,744 impressions. When referring to online advertising, the term "impressions" indicates the number of times an ad is shown.

The company created a webpage for customers to request printed copies via mail, view past issues, or download a PDF or printable version of these publications. All advertising drove customers to this webpage. A toll-free number was set up for customers who saw the *Connections* ad or received a bill insert and preferred to order via phone. The bill inserts had a form that customers could mail in to request the guide.

Results of the October 31 to November 23, 2014, digital campaign yielded 514,744 total impressions and a 0.19 percent campaign click-through rate (CTR). Overall performance was above average. Audience targeting performed satisfactorily, but re-messaging drove the best results, with an outstanding CTR. Re-messaging means ads are delivered back to consumers that have visited Idaho Power's website and/or specific program pages within idahopower.com, as directed by Idaho Power program managers (maximum 3 to 4 ads per day to individual internet addresses). Total re-messaging impressions were 103,526, and the re-messages CTR was 0.68 percent. Generally, the digital advertising industry average for CTR is 0.07 to 0.10 percent.

Idaho Power tracked visits to the website. A sample of the results gathered from the web tracking from October 24 to November 30 included 1,931 visitors to the home page, 495 clicks on the promo pod—a promotional icon or small image used to draw viewers attention to information on the company's website that the company wishes to promote—on the home page, and 268 visitors to the printable version of the *Fall Energy Efficiency Guide*, all located at idahopower.com/EnergyEfficiency/Residential/Programs/eeClasses/default.cfm.

Because customer testimonials are credible, unbiased recommendations, the company conducted ad hoc interviews to procure customer testimonials at the September 2014 FitOne Expo in Boise. Clips were to be used to create a short video of customer testimonials regarding Idaho Power's energy efficiency programs for viewing on Idaho Power's website. Using the ad hoc interview technique, the company learned customers do not recall program details and were inaccurate regarding the programs. In the future, should Idaho Power decide to revisit customer testimonials, Idaho Power will record interviews in a formal studio, film retakes as needed, and provide customers with time to prepare and recall program information.

The company employed a number of new communication/advertising opportunities in 2014. The company reached out to professional associations to determine how they communicate with members and if there are advertising opportunities in newsletters, webpages, and/or resource guides. Idaho Power met with the lobbyist for the Idaho Retailers Association, Idaho State Pharmacy

Association, and Idaho Lodging & Restaurant Association. This meeting resulted in ongoing communication with Idaho Power providing energy efficiency information for inclusion in a newsletter to association members.

Idaho Power placed a half-page ad in the November and December issues of the Building Contractors Association of Southwestern Idaho (BCASWI) monthly newsletter to promote the company's ENERGY STAR® Homes Northwest program and the builder incentive. The newsletters went to members in Ada, Boise, Camas, Elmore, Gem, and Canyon counties. A full-page insert was placed in the Idaho Chamber of Commerce publication to promote Idaho Power's commercial energy efficiency programs to building owners, managers, tenants, and contractors.

One of the target segments for Idaho Power's Weatherization Solutions for Eligible Customers program is senior citizens. To focus on this segment, Idaho Power sent program information to a number of resources used by senior citizens.

In 2014, 10 digital ad campaigns ran for one to three months each. These included ads on the Yahoo! network and targeted behavioral ads. Specific customer segments were shown Idaho Power ads based on customers' past behavior on the Internet. For example, if a customer within Idaho Power's specific geographic area visited a site about heat pumps or home improvement, an Idaho Power ad for DHPs would appear on subsequent webpages. The site was programmed to follow that user. Audience targeting puts Idaho Power marketing messages in front of the people the company wants to reach when they are most receptive. This was the first time the company advertised ENERGY STAR Homes Northwest on sites such as zillow.com.

During 2014, Idaho Power purchased over 42 unique print ads in newspapers, event program guides, and chamber of commerce inserts. These print ads were placed in trade publications, association newsletters, association event program brochures, *Horizon Air Magazine*, and weekly and daily newspapers. Advertised programs included Building Efficiency, Easy Upgrades, Custom Efficiency, ENERGY STAR Homes Northwest, Irrigation Efficiency, Home Improvement, Home Energy Audit, H&CE Program, and DHP Pilot. Additional ads encompassed all of the energy efficiency residential programs.

In February and September 2014, Idaho Power ran the *Be Energy Smart* and *Use Your Watts Wisely* integrated advertising campaigns to increase awareness of the company's energy efficiency programs as a whole rather than individually. This multi-channel campaign included 15-second spots on Idaho Public Television, newspaper print ads throughout Idaho Power's service area, online ads, Facebook ads, and an editorial focus in the company's monthly *Connections* newsletter. This integrated campaign will continue in 2015.

Cumulative results from the *Be Energy Smart* and *Use Your Watts Wisely* integrated advertising campaigns are indicated in Table 7.

Table 7. Cumulative results from February and September *Be Energy Smart* and *Use Your Watts Wisely* advertising campaign

Marketing Tactic	February 2014		September 2014	
Idaho Public Television	509,350	impressions	335,960	impressions
Print advertising	628,812	impressions	886,220	impressions
Online advertising	515,199	impressions	514,135	impressions
Click-through rate	0.06%		0.18%	
Number of clicks	331	clicks	915	clicks
Connections	405,000	printed	405,000	printed
Facebook ads	N/A		54,407	customers reached
Number of page views on the web				
idahopower.com/energyefficiency	554	views	4,277	views
idahopower.com/save	54	views	209	views

For television, impressions refers to the sum of audiences, in terms of people or households viewing, where there is exposure to the same commercial or program on multiple occasions. Two gross impressions could mean the same person was in the audience on two occasions or that two different people had been exposed only once. Impressions for print advertising means the circulation of the publication on the days the ad ran multiplied by the number of times the ad ran. September print impressions were higher than February for the same cost because rates were lower at *The Idaho Statesman*; the ad was smaller, so Idaho Power could run more ads for the same cost; Idaho Power had an extra ad on Sunday, which resulted in higher numbers, and Idaho Power added *Idaho Senior News* to the print buy. Idaho Public Television impressions were less in September compared to February because people watch more television in northern climates in February. In addition, Nielsen does not rate public television in September, so the numbers for September from Idaho Public Television are approximated using November Nielsen ratings. Nielsen is a leading global provider of information and insights into what consumers watch and buy.

To make advertising easier for Idaho Power's trade allies, the company launched a contractor portal in 2014. The portal allows trade allies access to a specific area of Idaho Power's website where they can customize pre-approved marketing pieces. New marketing pieces will be added as needed.

In 2014, all Idaho Power commercial energy efficiency programs were revised with updated marketing materials and web content to reflect programmatic changes. Various direct-mail pieces went to customers. A letter was mailed to commercial customers regarding changes to the Easy Upgrades program and resulted in a number of inquiries to the company's customer representatives (CR). A similar mailing highlighting program changes to the Building Efficiency program went to architects and engineers in Idaho Power's service area. Idaho Power also developed a letter for the company's major customer representatives (MCR) to distribute to their customers highlighting changes to the commercial and industrial programs. Idaho Power placed a promo pod on Idaho Power's commercial landing page alerting customers about upcoming commercial program revisions and suggesting customers check back regularly to learn about changes. The company's *ENERGY@WORK* newsletter—mailed to the company's small/medium-size business customers—contained an article informing customers about the changes to the commercial programs and advised them to go to Idaho Power's website for details. A targeted mailing went to hotels and motels at the end of the year. The mailing included the *Energy Efficiency Tips for Hotels* brochure and a flyer inserted in the brochure outlining hotel and motel incentives. A customized cover letter included the name and phone number of the CR for the customer to call with any questions. Idaho Power asked CRs to call their specific hotel and motel

customers the week after the mailing to ascertain if the customer received the mailing, if they felt it was helpful, and if the representative could help them initiate an energy efficiency project.

Similar mailings will continue in 2015, highlighting industries including convenience stores, health care, health care facilities, restaurants, grocery stores, and office buildings. These brochures are online at idahopower.com/EnergyEfficiency/Business/Tips/eeBusinessSpecificTips.cfm.

Historically, Idaho Power used bill inserts to exclusively promote residential programs. Energy efficiency bill inserts were included in every month except December. However, in 2014, Idaho Power expanded the use of bill inserts to include intermittent commercial bill inserts that outline Idaho Power's suite of commercial/industrial programs.

In 2014, 11 new commercial success stories were posted on the company's website. The success stories showcased commercial customers, including Riverstone School, ON Semiconductor, Technichem, Riverside Hotel, North Star Charter School, and CSHQA. The stories are written by a third-party contractor, approved by Idaho Power, placed in a template, sent to the customer for final approval, and posted on the Idaho Power website at idahopower.com/EnergyEfficiency/Business/SuccessStories/default.cfm.

The company created the *Energy Efficiency Solutions* video highlighting three commercial customers in various geographic locations and posted it at idahopower.com/business.

In December 2014, Idaho Power marketing staff met with NEEA marketing personnel in Portland. For the past three years, marketing staff from NEEA and Idaho Power have met in-person annually. Moving forward, Idaho Power and NEEA plan to coordinate marketing activities on initiatives Idaho Power didn't opt out of through monthly conference calls and ongoing work groups.

In 2013, third-party contractor TRC Energy Services was contracted to provide a process evaluation of the H&CE Program and ENERGY STAR Homes Northwest program. In their 2014 report, TRC Energy Services recommended Idaho Power develop a portfolio-level brand for Idaho Power's energy efficiency programs to increase customer awareness of its DSM programs. Idaho Power considered this recommendation and determined Idaho Power's energy efficiency programs are consistently branded to align with the overall company brand. The Idaho Power brand is aligned with the company's vision and mission. To build a strong brand, all of the company's materials need to be consistent and recognizable.

In 2015, the company plans to initiate new marketing tactics in addition to ongoing marketing activities. New approaches include an online panel, airport signage, public radio broadcasts, and additional ad sources. When programs have new measures added or removed, Idaho Power ensures the updates are included in web content and in hard copy materials.

The em**powered** community online panel launches in spring 2015. Starting March 2015, Idaho Power will send at least one survey or other online research request each month to community members. The em**powered** community will provide a readily accessible and reliable group of customers that can respond quickly to online questionnaires and other online research requests. Using an online community allows for a quicker turnaround on focused topics or research. It is also a lower-cost option for ad hoc or quick-turnaround studies. Recruitment is being conducted primarily through bill inserts included in all February residential bills. Postcards are being direct-mailed to customers that currently receive a paperless bill from Idaho Power. Additionally, a promo pod will be placed on idahopower.com. The initial recruitment period for the em**powered** community is February 2 through March 31. Customers who register to become a member of the em**powered** community during this recruitment

period will be eligible to win one of four $250 prizes. Ongoing community members who participate in monthly surveys will be eligible to win one of two $100 prizes per month. Idaho Power employees and their immediate family members are not eligible to participate.

Another new marketing tactic in 2015 is signage at the Boise Airport. Idaho Power will advertise its commercial programs for a year with a large sign above a baggage claim and a large LED backlit sign on the B Concourse. The Boise Airport serves 2.8 million passengers annually, and 42 percent of the passengers are business travelers.

During the focus groups planned for 2015, Idaho Power will test messaging that may motivate customer participation in energy efficiency programs. While secondary research informed messaging in the past, the results from the qualitative study of Idaho Power customers will be considered when writing advertising copy and content for marketing materials.

In the first quarter of 2015, Idaho Power will expand its energy efficiency radio ads throughout the service area by adding public radio to the 2015 marketing mix. Boise State Public Radio broadcasts on over 20 stations to more than 100,000 listeners throughout southern and central Idaho's metropolitan and rural areas. Idaho Power will also use KISU-FM public radio to cover eastern Idaho.

Marketing in 2015 will use new publications dedicated to senior citizens. *Senior Goldmine* is a monthly publication delivered to 10 senior citizen centers and over 100 locations in the Treasure Valley. It is also hand-delivered to over 700 Meals-on-Wheels recipients. The company is researching advertizing in the *Senior Blue Book*, a semi-annual resource directory mailed to over 28,000 seniors and healthcare professionals. Senior publications with distribution outside of the Treasure Valley— such as the *Idaho Senior News*—will also be used.

Commercial marketing for the upcoming year will include advertorials and print ads in *The Idaho Business Review* and *The Business Insider*. New success stories will be produced, and association event sponsorships will remain. Industry-specific mailings will continue, and Facebook ads will be launched to appeal to commercial/industrial customers.

In January 2015, Idaho Power marketing and advertising personnel met with sales representatives from Pandora Internet Radio to initiate and plan an audio-mobile ad and an audio web ad for March 2015. Pandora offers advertising opportunities in the form of banner ads, video ads, and audio ads, with 71,697 monthly unique visitors ages 25 to 54 in Ada county and 27,988 monthly unique visitors in the same age group in Canyon county.

In 2015, Idaho Power will refresh its energy efficiency web pages. This effort started in 2014 and will continue in 2015. The redesign is intended to make navigation and web content more intuitive and easily accessible to users.

ENERGY EFFICIENCY ADVISORY GROUP

Formed in 2002, the EEAG provides input on formulating and implementing energy efficiency and demand-reduction 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. 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. In 2014, Idaho Power would especially like to thank those EEAG members that participated in the IRP energy efficiency workshops.

EEAG met four times in 2014: February 6, May 20, August 19, and November 12. Additionally, a conference call was held on March 17 and April 24. During these meetings, Idaho Power discussed and requested recommendations on new program 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 minutes from the 2014 EEAG meetings are included in *Supplement 2: Evaluation*.

During the February 6 EEAG meeting, the results of a process evaluation done for both of Idaho Power's weatherization programs was presented by Johnson Consulting. The impact evaluation for the Irrigation Efficiency program was presented by ADM.

On March 17, members of EEAG participated in a conference call to discuss potential modifications to the Building Efficiency and Easy Upgrades programs. This conference call also contained a confidential discussion about the company's proposal to transfer $20 million of Idaho Rider funds to customers through the 2014/2015 PCA.

A conference call was held on April 24, 2014, to review NEEA's proposed business plan for the 2015 to 2019 funding cycle. The proposed business plan focuses on four strategic markets with a draft budget between $145 and $169 million. Also included in the proposed business plan are a few optional initiatives for funders.

At the May 20 EEAG meeting, Idaho Power's *Energy Efficiency Potential Study* conducted by EnerNOC, Inc., was a main topic of discussion. A subset of EEAG members met on May 19 to review the potential study and discuss ideas that could close the gap between the economic and achievable potential as indentified in the study.

At the August 19 EEAG meeting, there was a demand response update highlighting the success of all three programs—Irrigation Peak Rewards, A/C Cool Credit, and FlexPeak Management—for the 2014 season. Idaho Power had approximately 390 MWs of demand response capacity enrolled in the three programs.

During the November 12 EEAG meeting, four new program ideas were highlighted during the New Program Ideas Update. Idaho Power's *Demand Response as Operating Reserves Report* was also presented. This report was filed with the IPUC in September 2014 and the OPUC in October 2014, as a requirement from the *Demand Response Programs Settlement Agreement*.

In addition to EEAG, Idaho Power solicits further customer input by meeting directly with stakeholder groups in the residential, commercial, industrial, and irrigation customer sectors. Idaho Power has 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

The structure of Idaho Power's *Demand-Side Management 2014 Annual Report* remains mostly unchanged from the 2013 report. It aligns with the reporting requirements included in the MOU with the IPUC staff and Idaho's other investor-owned utilities.

This main *Demand-Side Management 2014 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 chart containing 2014 and 2013 program metrics in tabular format, followed by a general description, 2014 activities, cost-effectiveness, customer satisfaction/evaluation, and 2015 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 tabular information on 2014 expenses and savings and historic information for all energy efficiency programs and demand response activities at Idaho Power.

Historically, Idaho Power divided its service area into five regions: 1) Canyon, consisting primarily of Canyon and Gem counties; 2) Western, consisting of the company's Oregon jurisdiction and Adams, Valley, and Payette counties; 3) Capital, consisting of Boise, Mountain Home, and the surrounding area; 4) Southern, consisting of the Twin Falls and Sun Valley area; and 5) Eastern, consisting of the Pocatello, Blackfoot, and Salmon areas.

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. Because of the historical geographic demarcations, the five historical regions are referred to throughout this report.

Appendices 1 through 5 remain generally unchanged in form and 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 2014, 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 serves a little over one million people in southern Idaho and eastern Oregon. At the end of 2014, the company was serving 428,294 residential customers in its service area. During 2014, Idaho Power added 6,106 residential customers. This was almost identical growth to 2013 when the company added 6,168 new residential customers. The regional economy continues to improve, and the company is seeing a steady increase of new, residential customers and more housing starts. In 2014, the residential segment represented 36 percent of Idaho Power's total electricity usage.

In 2014, residential customers used 5.6 percent less energy than in 2013. This lower usage can be attributed to a variety of reasons, including, but not limited to, energy efficiency program activities, customer education, and milder temperatures. 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.

Table 8 shows a summary of 2014 participants, costs, and savings from the residential energy efficiency programs.

Programs

Table 8. 2014 residential program summary

			Total Cost		Savings	
Program	**Participants**		**Utility**	**Resource**	**Annual Energy (kWh)**	**Peak Demand (MW)**
Demand Response						
A/C Cool Credit	29,642	participants	$1,465,646	$ 1,465,646		44
Total			**$1,465,646**	**$ 1,465,646**		**44**
Energy Efficiency						
Ductless Heat Pump Pilot	179	homes	251,446	884,211	462,747	
Energy Efficient Lighting	1,161,553	bulbs	1,909,823	7,148,427	12,882,151	
Energy House Calls	297	homes	197,987	197,987	579,126	
ENERGY STAR® Homes Northwest	243	homes	343,277	689,021	332,682	
ENERGY STAR® Homes Northwest (gas fuel)	282	homes			195,372	
Heating & Cooling Efficiency Program	230	projects	362,014	1,247,560	1,099,464	
Home Energy Audit (direct install savings)	354	homes			141,077	
Home Improvement Program	555	homes	324,717	896,246	838,929	
Home Products Program	10,061	appliances/ showerheads	227,176	302,289	652,129	
Oregon Residential Weatherization	13	homes	5,462	9,723	11,032	
Rebate Advantage	44	homes	63,231	89,699	269,643	
See ya later, refrigerator®	3,194	refrigerators/freezers	576,051	576,051	1,390,760	
Student Energy Efficiency Kits*	6,312				1,491,225	
Weatherization Assistance for Qualified Customers	255	homes/non-profits	1,320,112	1,997,108	533,800	
Weatherization Solutions for Eligible Customers	118	homes	791,344	791,344	290,926	
Total			**$6,372,640**	**$14,829,666**	**21,171,063**	

Notes:
See Appendix 3 for notes on methodology and column definitions.
Totals may not add up due to rounding.
*Student Energy Efficiency kits are offered through the Residential Energy Efficiency Education Initiative.

Programs available to residential customers in 2014 included 13 energy efficiency programs, the Residential Energy Efficiency Educational Initiative, the Easy Savings Program, and the Shade Tree Project. Residential efficiency programs included Energy House Calls; Rebate Advantage; ENERGY STAR® Homes Northwest; Home Products Program; Home Improvement Program; Energy Efficient Lighting; WAQC; Weatherization Solutions for Eligible Customers; DHP Pilot; Oregon Residential Weatherization; H&CE Program; See ya later, refrigerator®, and the new Home Energy Audit program.

Idaho Power markets its residential energy efficiency programs to its customers through online advertising, print ads, radio and television commercials, media and public relations, billboards, retail events, customer visits, meetings with trade allies and contractors, participation in home and garden shows, remodeling events, and county fairs.

Bill communication included monthly bill inserts and messages; energy efficiency guides; and articles in the *Connections* customer newsletter, including two issues (February and September) devoted entirely to energy efficiency topics and programs. *Connections* is mailed in bills monthly to approximately 415,000 customers and available online for those who request paperless billing. Energy efficiency guides included the *Spring/Summer Energy Efficiency Guide* (April) and the *Fall/Winter Energy Efficiency Guide* (October). 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 2014

Month	Program/Topic	Total Inserts
January	Energy efficiency summary	383,424
	See ya later, refrigerator®	20,069
February	See ya later, refrigerator®	41,091
March	See ya later, refrigerator®	142,707
April	Home Improvement Program	350,177
	See ya later, refrigerator®	219,595
May	Ductless heating	363,225
	ENERGY STAR Homes Northwest	363,258
June	Home Improvement Program	352,566
	See ya later, refrigerator®	364,240
July	See ya later, refrigerator®	164,236
	Commercial energy efficiency	40,147
	Home Products Program	364,235
August	See ya later, refrigerator®—Dog	178,786
	See ya later, refrigerator®—Man	190,402
September	Weatherization	353,813
	Energy House Calls	365,491
October	See ya later, refrigerator®	364,587
	Commercial energy efficiency	40,142
November	*Fall/Winter Energy Efficiency Guide*	40,650

Throughout the year, public relations and media opportunities were identified to create awareness of energy efficiency programs and encourage the wise use of energy. From the weekly *News Briefs* email sent to all media in Idaho Power's service area to targeted media alerts and releases (also posted online), content was provided for news stories to inform and educate Idaho Power customers. The company

successfully pitched the concept of a monthly energy efficiency segment on the KTVB-TV afternoon news program with Idaho Power's CR&EE manager. The segments, which began in October, focused on energy efficiency tips for residential customers, including weatherizing your home, the benefits of LED lighting and how to receive an Idaho Power energy efficiency guide. Broadcasting both in the Boise and Twin Falls markets, the show reached 20,000 to 30,000 viewers each time.

In October, Idaho Power celebrated national Energy Awareness Month with the annual student art contest, which featured a category, "Ways to Save Energy." Idaho Power promoted the event in *News Briefs* and issued news releases in support of local award presentations for students and their winning artwork, which was displayed at local events and recognized in the media.

Social media in 2014 continued to be an effective method of informing and educating stakeholders on the company's energy efficiency programs, incentives, and events. Idaho Power Facebook fans climbed to over 11,100, up from 7,600 in 2013. Twitter followers also grew from 1,900 in 2013 to over 3,000 in 2014. On YouTube, the most popular video continued to be the educational clip on DHPs. The video has been viewed over 20,000 times for an estimated 41,531 minutes watched. Ensuring quality content is a team effort, with the social-media specialist working with program specialists and marketing staff to ensure messaging alignment for key campaigns and energy efficiency events throughout the year.

In 2014, the online myAccount tool was the focus of a comprehensive communications campaign, from advertising to public relations. One important message of the campaign was "Understand Your Use." Customers were encouraged to learn how they use energy by completing a Home Profile and to use Idaho Power's tips, advice, and programs to save energy. An entire issue of *Connections* (May) featured myAccount and ways customers can save on their energy bill. The same messaging appeared in myAccount bill inserts (June and October), the KTVB segments, online promotional links, advertising, and a new display panel designed for the company's special events exhibit. In August, an *eNews* internal video was produced about myAccount with the same messaging about ways to save, and the video was posted externally on YouTube. By the end of the year, Idaho Power offered a new mobile version of its website with myAccount functionality available.

Presentations to community groups and businesses continued to be a major emphasis during 2014. Idaho Power CRs and CERs made hundreds of presentations in communities served by the company.

The Home Energy Audit program launched in early 2014. The program was based on insights gained from the Boise City Home Audit project conducted in 2011 and 2012. For details regarding the Boise City Home Audit project, view the *Demand-Side Management 2012 Annual Report*, pages 125 to 127, and the *Demand-Side Management 2013 Annual Report*, page 25.

In 2014, Idaho Power distributed 2,041 shade trees to residential customers through the expanded Shade Tree Project. Using results from a state-sponsored urban tree-canopy study and online tools developed by the Arbor Day Foundation, the Shade Tree Project encouraged the strategic planting of trees to reduce summertime residential energy use.

Idaho Power conducts the Burke Customer Relationship survey each year. In 2014, 59 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. While 43 percent of Idaho Power residential customers surveyed in 2014 indicated Idaho Power is meeting or exceeding their needs in offering

energy efficiency programs, 28 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, 81 percent are “very” or “somewhat” satisfied with the program.

A/C Cool Credit

	2014	2013
Participation and Savings		
Participants (participants)	29,642	n/a
Energy Savings (kWh)	n/a	n/a
Demand Reduction (MW)	44	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$962,286	$537,163
Oregon Energy Efficiency Rider	$56,988	$29,731
Idaho Power Funds	$446,372	$96,964
Total Program Costs—All Sources	$1,465,646	$663,858
Program Levelized Costs		
Utility Levelized Cost ($/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	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2003	

Description

A/C Cool Credit is a voluntary, dispatchable demand response program for residential customers. Using communication hardware and software, Idaho Power cycles participants' central air conditioners (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 peaking requirements during times when summer peak load is high.

In alignment with the settlement agreement reached in Case No. IPC-E-13-14, changes were made to the program in 2014. To create consistency among Idaho Power's demand response programs, the cycling season was reduced from June 1 through August 31 to June 15 through August 15. The maximum number of cycling hours available per season was reduced from 120 hours to 60 hours. A minimum of three cycling events per season was set, and the incentive was reduced from $21 per season to $15 per season. The incentive is paid as a bill credit of $5 on the July, August, and September bills. The program continued to be available to reduce energy demand during critical summer peak periods. As before, the program is not available on weekends or holidays, and the maximum length of an event remains at four hours.

Customers' A/C units are controlled using switches that communicate by power-line 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.

2014 Program and Marketing Activities

In early winter, the company sent letters to program participants regarding the new program details and the implications for customers. As agreed to in the settlement agreement, Idaho Power did not actively market the A/C Cool Credit program in 2014; 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. Idaho Power also completed the replacement of any remaining radio-paging switches on current participants' residences with advanced metering infrastructure (AMI)-compatible devices in 2014.

Before the cycling season began, participants were sent a postcard reminding them of the program specifics. Also, in the company's June 9 *News Briefs* weekly email to all media throughout Idaho Power's service area, the company included a reminder to customers participating in the program that A/C season had arrived and the program was in effect. Three cycling events occurred in 2014 on July 14, July 31, and August 11. At the end of the summer, a thank you card was sent to program participants. The company followed up with a *News Briefs* item on September 3 crediting the demand response programs for effectively helping offset energy use during periods of high electrical demand that summer.

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 2014, the cost of operating the three demand response programs was $10.6 million. It is estimated that if the three programs were dispatched for the full 60 hours, the total costs would have been approximately $13.8 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 44 MW. The total expense for 2014 was $1,465,646 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

In fall 2014, a customer satisfaction survey, along with a postage-paid envelope, was mailed to 5,000 current A/C Cool Credit participants. The response rate was over 36 percent, with 1,810 responses.

Survey participants were asked "What was the main reason you participated in the A/C Cool Credit program?" Over 38 percent of respondents indicated it seemed like the right thing to do. Approximately 30 percent of respondents indicated to earn the bill credit. Over 28 percent indicated to reduce overall electrical usage on hot summer days. The remaining respondents selected "other" as their main reason.

When asked how many days participants would estimate Idaho Power cycled their A/C unit during the past summer, nearly 65 percent stated they didn't know. Over 17 percent of respondents estimated there were 1 to 5 events. Just over 8 percent thought there were over 10 events.

The survey respondents were satisfied with the program, with over 89 percent indicating they were "very" or "somewhat" satisfied with the program. Participants were asked how significantly they were impacted by the program this past summer, and nearly 82 percent of respondents indicated "very little" or "not at all." Eighty-eight percent indicated they receive the right amount of information about the program. Results of the survey are in *Supplement 2: Evaluation*.

Idaho Power contracted with CLEAResult (acquired PECI), to complete an impact evaluation of the 2014 A/C Cool Credit program. The goal of the impact evaluation was to calculate the estimated demand reduction achieved by three A/C Cool Credit curtailment test events and update the program's existing predictive model to account for the 2014 curtailment event results.

PECI completed analyses of curtailment events held on July 14, July 31, and August 11, 2014, each with a three-hour duration. Results of the analyses showed maximum single-hour demand reductions of 1.33 kilowatts (kW), 0.91 kW, and 1.07 kW per participant, respectively, for the three events. The average hourly demand reduction was 1.25 kW, 0.86 kW, and 1.00 kW per participant, respectively. Due to the distinct weather patterns between the Boise and Pocatello/Twin Falls regions, each curtailment event analysis includes region-specific results.

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.

2015 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 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.

Idaho Power will maintain the existing A/C Cool Credit program, equipment, and participation by providing an opportunity for all current program participants to continue to participate if they choose. This strategy aligns with the settlement agreement reached in Case No. IPC-E-13-14. The company will be able to continue using the investment that Idaho Power's customers have made in the existing equipment in the field.

Ductless Heat Pump Pilot

	2014	2013
Participation and Savings		
Participants (homes)	179	215
Energy Savings (kWh)	462,747	589,142
Demand Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$235,099	$230,761
Oregon Energy Efficiency Rider	$9,614	$6,814
Idaho Power Funds	$6,733	$0
Total Program Costs—All Sources	$251,446	$237,575
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.042	$0.032
Total Resource Levelized Cost ($/kWh)	$0.148	$0.132
Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	1.77	
Total Resource Benefit/Cost Ratio	0.70	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2009	

Description

Idaho Power joined the Northwest DHP Pilot project in 2009 and implemented the pilot throughout its service area. The company extended the project as an Idaho Power DHP Pilot through 2014. A primary goal of the Northwest DHP Pilot project is to promote DHP technology as an energy-saving alternative for customers who primarily heat their homes with electricity. In 2014, Idaho Power offered customers a $750 incentive payment to have a qualified DHP installed.

The program targets existing homes heated with electric zonal systems. Typically, these homes do not have air ducting and therefore cannot easily have a forced-air heat pump system installed. This provides the opportunity to encourage the use of DHPs. The types of electric zonal systems in the targeted homes include baseboards, ceiling cables, and wall-mounted units. Homes heated with fossil fuel forced-air systems or electric forced-air systems do not qualify. Qualifications include having one DHP indoor unit installed in the main living area of the home, since this is where most occupants spend most of their time.

Other Northwest DHP Pilot goals are to identify how much energy this technology saves to determine an RTF deemed-savings amount and to obtain customer satisfaction and behavioral patterns regarding the units.

Field monitoring of selected homes throughout the Pacific Northwest, an analysis of billing data, and other evaluations occurred from 2009 through 2014. In 2014, NEEA published a final summary report and a third market progress evaluation report. Detailed information about the regional DHP effort is located at goingductless.com and neea.org.

2014 Program and Marketing Activities

The DHP Pilot had a decrease of 37 applications in 2014 compared to the prior year. This was primarily due to a one-time 40-installation project that was received in 2013 and not repeated in 2014. The 2013 project involved converting baseboard heat to DHPs in 40 living units that were in 10 fourplex properties. Marketing expenses for the DHP Pilot increased by $36,065 in 2014 when compared to the prior year. This increase caused total annual expenses to exceed 2013 expenses even though fewer incentives were processed in 2014.

Knowing contractors are a vital marketing asset, contractor visits were made throughout 2014 to better understand how Idaho Power can support participating contractors in promoting the DHP Pilot. As a result, Idaho Power developed a contractor portal housed on Idaho Power's website. The portal was launched August 2014. It allowed authorized contractors access to a specific area of Idaho Power's website where they could customize pre-approved marketing pieces with their own business name, address and phone number. Two fliers were offered for use by participating contractors in the DHP Pilot. The offering was part of a combined portal launch with the H&CE Program and Home Improvement Program.

Expanding the network of participating contractors remained a key growth strategy for the DHP Pilot. The goal was to support contractors currently in the DHP Pilot while adding new contractors. To accelerate the expansion of the participating contractor network, Idaho Power provided three DHP Pilot orientation training sessions to participating and prospective contractors. Expansion strategies resulted in the addition of three companies to the list of participating contractors (4 percent increase). Three training sessions were offered in 2014 as compared to 11 in 2013. The decrease in the number of new companies was a result of successful trainings and contractor additions completed in 2012 and 2013. About a dozen companies have contacted Idaho Power and are pending addition to the program. Future meetings with potential contractors could yield additional participants.

To hasten the residential adoption of the DHP technology in the Idaho Power service area, a key strategy was to communicate with other tiers of the supply chain. In the Idaho Power service area, there are numerous wholesalers supplying DHPs to the contractors. Idaho Power met with several of these wholesalers in Idaho Power's service area to share helpful information and to encourage them to promote DHPs to their contracting customers.

Marketing tactics for Idaho Power's DHP Pilot varied. Approximately 3,000 radio ads ran on over 20 radio stations for six weeks throughout Idaho Power's service area. During spring 2014, a digital behavioral ad campaign was launched. The DHP Pilot had 781,461 ads viewed by people browsing the internet over the course of two months from this ad campaign.

A direct-mail campaign was conducted in April 2014. Over 27,000 letters were sent to homeowners of electrically heated homes. In addition, information about the DHP Pilot was included in a postcard sent to people who purchased a home within the previous six months. Bill inserts and newspaper ads rounded out the ongoing marketing and promotion of the DHP Pilot.

In May, the company issued a press release in southeast Idaho recognizing NEEA's *Northwest DHP 2014 Idaho Installer of the Year* that provides services to Idaho Power's customers in that area. In addition, a *Heat Pumps: Cozy and Cool* article appeared in the September energy efficiency issue.

The *Demand-Side Management 2013 Annual Report* mentioned possible changes to the DHP webpages. Changes to the DHP webpages were not made in 2014 because on a separate project, the company began

working on a website redesign to improve navigation on the energy efficiency website. The decision was made to wait until that work was completed before any changes were made to DHP webpages. The *Demand-Side Management 2013 Annual Report* also stated contractors would be asked to comment on the portal during 2014. Comments were not pursued due to the portal launching in the third quarter of the year, which limited contractors' time to try the portal in 2014.

Cost-Effectiveness

The 2014 savings estimates and reported deemed savings values were unchanged from the 2013 values. During 2014, the RTF reviewed the savings models for DHP with updates occurring in May, June, and December around the calibration of savings models, screening for supplemental fuel use, and the assumptions around other efficiency measures occurring in DHP homes. The RTF's decisions and resulting changes in savings will be applied in 2015. Idaho Power calculated the participant costs for the TRC by averaging one-unit installations that occurred in Idaho Power's service area over the two-year period 2013 to 2014. The average installation cost over the time period was $4,285.

In 2014, Idaho Power included RTF-approved NEBs, accounting for annual avoided supplemental fuel costs and avoided capital expenses of A/C purchases that would have occurred in the absence of the installation of a DHP system. A current sub-committee was formed in 2014 to address the possible inclusion of NEBs for decreased health impacts from reduced wood-burning emissions. In November, the RTF presented its findings and recommendation on the inclusion of health benefits to be part of the cost-effective benefits in the cost-effective analysis of measures and programs. The RTF is waiting the council's guidance on the issue.

After including the RTF-approved NEBs, the DHP measure is not cost-effective from a TRC perspective. However, Idaho Power determined DHPs meet at least one of the cost-effectiveness exceptions outlined in OPUC Order No. 94-590. Idaho Power originally filed UM-1710 to request cost-effectiveness exceptions with the OPUC on November 4, 2014, and subsequently re-filed it on February 11, 2015. The case is still pending. For cost-effective details, see *Supplement 1: Cost-Effectiveness*.

Customer Satisfaction and Evaluations

As part of the DHP Pilot, Idaho Power's third-party contractor conducted on-site verification (OSV) on at least 10 percent of the completed installations in Idaho Power's service area in 2014 to ensure installations complied with program requirements. The OSVs were beneficial for customers and the contractors. The inspector provided customers with information about how to maximize the benefits of their new DHP. The contractors received feedback from the inspector and reviewed the installation requirements of the DHP Pilot.

In 2014, NEEA provided two reports updating the DHP Pilot. The following are highlights from the reports.

NEEA Report E14-274, released February 2014

NEEA published a summary report addressing five key components of the DHP Pilot. The report includes market progress, laboratory testing, field monitoring, billing analysis, and cost analysis/NEBs. Each component is described individually in the report with detailed summaries. Several NEEA reports were published since the beginning of the DHP Pilot in 2009 addressing the five components. The February report recapped prior information and discussed DHP products, potential energy savings,

and potential sustainability of DHPs in the Northwest region. A copy of the NEEA Report E14-274 is included on the CD accompanying *Supplement 2: Evaluation*.

NEEA Report E14-278, released April 2014

This report was the third MPER for NEEA's Northwest DHP Initiative (the Initiative). The report presents the findings of surveys and interviews conducted with a mix of homeowners who owned or did not own DHPs. Feedback collected from installing contractors, utilities, wholesalers, and manufacturers is presented in the report. The report details the effectiveness and progress of the Initiative's ability to transform the target market. A copy of the NEEA Report E14-278 is included on the CD accompanying *Supplement 2: Evaluation*.

2015 Program and Marketing Strategies

Idaho Power will sponsor and provide training sessions and orientations to the DHP Pilot program for new and existing contractors to assist them in meeting program requirements and further their product knowledge.

Expanding the network of participating contractors remains a key strategy for the DHP Pilot. The goal is to support contractors currently in the DHP Pilot while adding new contractors. Performance of the DHP Pilot is substantially dependent on the contractor's ability to promote and leverage the DHP Pilot. Frequent individual contractor meetings will be held in 2015.

The strategy to promote the residential adoption of the DHP technology in Idaho Power's service area includes communicating with the complete supply chain. To accelerate the wholesaler's ability to increase contractor awareness of DHPs and the DHP Pilot, Idaho Power will meet with the wholesalers and share information.

The 2015 marketing strategy will include proven tactics previously used and new methods. Since homeowners make more improvements to their home during the first two years of ownership, the company plans to continue to target new customers in their first six months of new-home ownership. Postcards will be mailed to these new customers, raising awareness of the incentives available to them. The strategy will include many marketing tactics, such as bill inserts, print ads in newspapers, and direct-mail letters. Social media, such as Facebook, will be used. A DHP display will be used at several residential home and garden and home improvement trade shows.

New marketing pieces will be added to the contractor portal over time as needed.

Energy Efficient Lighting

	2014	2013
Participation and Savings		
Participants (bulbs)	1,161,553	1,083,906
Energy Savings (kWh)	12,882,151	9,995,753
Demand Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$1,860,046	$1,331,113
Oregon Energy Efficiency Rider	$45,959	$25,812
Idaho Power Funds	$3,818	$0
Total Program Costs—All Sources	$1,909,823	$1,356,926
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.018	$0.016
Total Resource Levelized Cost ($/kWh)	$0.066	$0.058
Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	2.98	
Total Resource Benefit/Cost Ratio	1.99	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2002	

Description

The Energy Efficient Lighting program strives for residential energy savings through the replacement of less-efficient lighting with more efficient technology. The most recent studies indicate consumer usage patterns. According to the *NEEA 2011 Residential Building Stock Assessment: Single-Family Characteristics and Energy Use* study, the average Idaho home has 63 bulb sockets. The *2010 Idaho Power Residential End-Use Survey* shows 88 percent of customers have less than 20 compact fluorescent light (CFL) bulbs installed, indicating there is still potential to install more energy-efficient bulbs. Changing these bulbs represents a low-cost, easy way for all customers to achieve energy savings.

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.

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.

2014 Program and Marketing Activities

In 2014, the Energy Efficient Lighting program provided almost 61 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™ promotion 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.

In 2014, Idaho Power continued to respond to recommendations made in the 2013 process evaluation conducted by TRC Energy Services. TRC Energy Services found that the program is generally successful. Since the inception of this program in 2010, the program has consistently exceeded kWh savings goals. The recommendations and Idaho Power's actions and considerations in 2014 are described below.

One recommendation was to continue to investigate options to bring LED products into the program while maintaining cost-effectiveness. In February 2014, Idaho Power added LED bulbs into the promotion in Oregon and Idaho service areas. LED bulbs comprised 13 to 29 percent of light bulb sales each month. LED fixtures were introduced in the Idaho service area March 2014 and comprised less than 1 percent of lighting sales each month through the rest of the year.

TRC Energy Services recommended increasing coordination with retailers to find mutually beneficial in-store advertising solutions and to speak with corporate representatives from a few large retailers to understand the restrictions on advertising, then work with retailers to overcome these barriers. Through its contractor, Idaho Power reached out to corporate representatives to find mutually beneficial advertising solutions. In 2014, all but two of the retailers in the Simple Steps, Smart Savings promotion allowed for some form of in-store advertising. All but five allowed for utility logos. Those that did not allow for utility logos allowed for wording such as "brought to you by your local utility." Retailers cited shopper consistency across the nation and protecting their brand as reasons to set advertising guidelines.

In addition, in 2014, Idaho Power continued to work with the region to address utility programs within the retail sector 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 WRUN sought to develop collaborative approaches to working with manufactures and retailers to increase uptake of energy-efficient products in the retail market.

Through CLEAResult, several special promotions were conducted at the retail stores through Simple Steps, Smart Savings. These promotions generally involved special product placement and signs. For example, in March and September, Fred Meyer stores had special endcap displays with promotional products. Costco used pallet displays in February. Home Depot held a truckload event in September. These types of promotions and special product placement help increase the visibility and sales of promotional products. CLEAResult staff also conducted 1,017 store visits in 2014 to check on stock, point-of-purchase signs, and displays.

TRC Energy Services recommended Idaho Power further investigate opportunities to bring more grocery chains and small retailers into the program or to work with participating retailers of these types to overcome participation barriers and increase program sales. In 2014, Idaho Power worked with 18 participating retailers, representing 144 individual store locations throughout Idaho Power's service area. The majority—63 percent of retailers in the program—are smaller grocery, drug, and small hardware stores.

Regionally, the *2012–2013 Northwest Residential Lighting Market Tracking Study* shows the majority of customers purchase light bulbs at do-it-yourself, mass merchants, and wholesale club stores. Smaller stores have lost market share for lighting products. Regionally, lighting sales at smaller stores have decreased from 28 percent in 2006 to 14 percent in 2012, the most recent year data is available. Larger stores tend to have a larger product selection and more competitive pricing.

Instead of focusing on increasing sales at smaller stores, Idaho Power evaluated its distribution of retail stores to ensure customers had access to promotional products. Idaho Power studied the geographic distribution of participating retailers and confirmed there were participating stores located throughout Idaho Power's service area with the exception of the Salmon area.

In addition, to help facilitate customer access to the promotion under Simple Steps, Smart Savings, Idaho Power launched its first online offering with Costco. With this offering, Idaho Power customers who purchased bulbs online through Costco could access Idaho Power incentives. For the Costco promotion, after selecting the shipping zip code, the customer was prompted to pick their utility service area, thereby emphasizing the tie between Idaho Power and the discounted price.

TRC Energy Services recommended Idaho Power consider adopting changes in RTF metrics for future cycles (not retroactively). In early 2015, Idaho Power established a policy that as a general rule, beginning for 2014 reporting of energy savings from energy efficiency programs, Idaho Power will freeze the savings metrics annually. This means that all savings for a given year will not be changed mid-year. This policy conforms to recommendations from third-party evaluators and seems consistent with other energy efficiency providers in the region.

Another recommendation from TRC Energy Services was to consider assigning the task of reviewing the invoices to junior or administrative staff so the program specialist would have more time to follow other recommendations provided. Idaho Power reviewed this recommendation and believes it is important that the staff with the most expertise review invoices to ensure customer funds are prudently spent; therefore, the program specialist continued to perform the invoice review in 2014. Furthermore, the specific process referenced by TRC Energy Services is a control that is necessary to meet the financial reporting requirements of the *Sarbanes–Oxley Act of 2002* (SOX). Idaho Power has fiduciary responsibility and must ensure all of its legal and regulatory requirements are met.

TRC Energy Services recommended Idaho Power ensure consistent language and terminology for product type categories through drop-down menus or similar strategies and provide future contractors with a data dictionary or other description of database terms. Idaho Power's program database is standardized to the promotion. The database covers program participation from 2009 onward and reflects several different promotions and promotion implementers. As a result, the data classifications tie directly to the original classifications used by the implementer at the time of sale. This allows Idaho Power to differentiate between different promotions and timeframes and tie data directly back to the original source files. A data dictionary will be developed in 2015.

Additional activities in 2014 included education and marketing. Idaho Power and CLEAResult conducted four education events at Costco stores in Pocatello, Twin Falls, Nampa, and Boise. At each event, Idaho Power and CLEAResult personnel talked with customers and staffed a table with literature, promotional items, and a lighting display.

Additional marketing and customer education by Idaho Power included the company's website, a redesigned program brochure, and discussions with customers at community events. The program brochure, which focused on how to shop for an energy-efficient bulb, was redesigned to include LEDs

and the Federal Trade Commission-required *Lighting Facts Label*. This label makes it easier for consumers to choose between different light bulbs by displaying common metrics (energy used, lumens, and color temperature.)

The September issue of Idaho Power's *Connections* customer newsletter and the *Fall/Winter Energy Efficiency Guide* featured lighting. Topics in both publications included understanding how to shop for the right bulb, lighting design basics, LEDs, and lighting controls. In the November *Connections*, the back page promoted the guide with the image of a large LED light bulb. The weekly media *News Briefs* email included stories on energy-efficient lighting on October 28 (guide focuses on lighting), December 1 (tips for safe holiday lighting), and December 8 (LED holiday lights use less energy). In addition, monthly energy efficiency segments on the afternoon KTVB-TV news program (broadcast in Boise and Twin Falls) mentioned energy-efficient lighting on October 27, November 13, and December 9—reaching from 20,000 to 30,000 viewers per program.

Additional 2014 program activities included customer education through distribution of bulbs to customers. Through Idaho Power's local events, bulbs were given directly to customers at a range of venues. Venues included energy efficiency presentations at senior centers and environmental and health fairs. In 2014, 1,524 CFL bulbs and 3,234 LED bulbs were distributed through this route. This included 2,500 LED bulbs distributed along with educational materials at the FitOne Expo in Boise.

Cost-Effectiveness

Throughout 2013, the RTF analyzed the savings for residential LED bulbs. Savings were finalized in October 2013. Idaho Power reviewed the savings and cost assumptions and determined residential LEDs are cost-effective. LEDs were added to the program in early 2014.

In 2014, the RTF updated and revisited the assumptions for both CFLs and LEDs to standardize and reduce the number of measures. The number of lamp types was reduced from 10 to 5 categories. The lumen categories within each bulb type were merged and reduced from six groups of lumen ranges to three groups. All other assumptions regarding baseline bulb, hours of use, lamp life, lamp cost, room type, and space conditioning remained the same. In grouping these measures, the RTF used a weighted average from the Residential Building Stock Assessment (RBSA).

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 Tetra Tech's evaluation of the 2013 program activities, the evaluators recalculated the energy savings Idaho Power associated with the high-lumen bulbs. After the evaluation, Idaho Power requested that Tetra Tech review the non-RTF bulbs included in the program. Tetra Tech recommended that 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.

As discussed in the Introduction, Idaho Power reviewed its policy of updating savings and cost assumptions and decided to freeze savings at the beginning of each year. However, this decision was made after efforts had been made to re-map the bulbs sold in 2014 to the new RTF categories. As a result, the savings for this measure reflect the changes approved by the RTF in mid-2014. 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 third-party 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.

The impact evaluation indicated ex-post verified savings were 10,047,811 kWh compared to 9,995,753 kWh ex-ante claimed savings, resulting in a gross realization rate of over 100 percent. The driver of the difference in the overall kWh realization rate from 100 percent was an adjustment made to non-RTF high-wattage lamps.

To facilitate more accurate, transparent, and consistent program reporting, Tetra Tech identified the recommendations below for program improvement.

Tetra Tech recommended working with the administration contractor to track allocation methods and negotiations that relate to allocations. While the administration contractor included the allocation used for each monthly report for each retailer and product model number, Tetra Tech stated Idaho Power should receive and retain a full accounting of Idaho Power's and the administration contractor's understandings of allocation and resolve any variances as part of monthly quality assurance (QA) checks.

Idaho Power reviewed this recommendation and found no action was necessary. Idaho Power already receives the full Regional Sales Allocation Tool (RSAT) used by CLEAResult, which includes a full accounting of the assumptions used to assign allocations. The tool is commissioned by the BPA and is updated approximately once per year. Idaho Power receives newly released versions and reviews the allocations for its retailers. Idaho Power has the opportunity to work with the tool developer to address any concerns. Idaho Power has always and will continue to verify allocations applied to sales as part of its monthly verification check.

Another recommendation by Tetra Tech was to consider updates to the Energy Efficient Lighting program tracking system. Tetra Tech stated that with the recent shift in RTF deemed savings amounts for lighting from wattage to lumen based, Idaho Power should consider adding lumens to the tracking database for each stock keeping unit (SKU) and work to identify future RTF changes in collaboration with the administration contractor. Idaho Power added lumens to the program database in January 2014.

Additionally, Tetra Tech recommended Idaho Power continue to comprehensively track retailer reports and RTF savings but consider a shared system that aligns all specifications that lead to reported energy savings. Tetra Tech also said to consider a database or similar system that the administration contractor and Idaho Power could share to enable additions of SKUs and available technical data to drive consistency between administration contractor reporting and Idaho Power tracking data for all factors.

Idaho Power reviewed this recommendation and found that new reports developed by CLEAResult in 2014 address this concern. Starting in 2014, Idaho Power began to receive a monthly current products list of all potential models in the promotion. Data includes lumens, model numbers, and bulb/fixture descriptions. Since the promotion began, Idaho Power has received detailed sales data directly from the contractor database each month with its invoice. The monthly invoice detail will continue to be compared against the raw sales data as reported by the retailer or manufacturer as part of the invoice reconciliation process.

Tetra Tech suggested Idaho Power consider alternative reviews of unique non-RTF lamps and characterizations. They stated that when identifying lamps that are not identified by the RTF, Idaho Power should take care when lamps are substantially different from an RTF category and verify lamp efficacy against manufacturer specifications and general performance. Idaho Power reviewed this recommendation and found quality concerns are covered by the program requirement that all lamps in the promotion be ENERGY STAR certified. Those without a deemed savings tend to be styles with specialty applications, such as high wattage. Due to lack of data, the RTF set the savings to not applicable (N/A) for some product categories. However, bulbs without deemed RTF savings values, "non-RTF lamps," have passed the ENERGY STAR qualifications for certification. These qualifications include testing procedures, general performance requirements, and minimum efficiency standards.

For non-RTF lamps, Tetra Tech recommended Idaho Power consider directly calculating energy savings using standard industry approaches or working with others to develop region-wide savings values. 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. Results will be available in early 2015.

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

2015 Program and Marketing Strategies

Idaho Power will continue to participate in Simple Steps, Smart Savings in 2015. CLEAResult was awarded the BPA implementation contract for 2015. Idaho Power will enter into a new promotion contract with CLEAResult beginning April 1, 2015. No disruption in services will occur.

Idaho Power will continue to monitor the number of participating retailers and geographic spread of these retailers. The company will reach out to stores in the Salmon area and invite them to participate in the promotion. Idaho Power will also work regionally to develop online promotions that allow customers to access promotional pricing regardless of location.

In 2015, Idaho Power will participate in the NWRRC and follow the work of WRUN. Involvement in the NWRRC and WRUN will help facilitate research into transitioning the Energy Efficient Lighting program to a more comprehensive retailer markdown program with additional product categories and will help Idaho Power test online retail platforms.

Marketing and education tactics in 2015 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.

Energy House Calls

	2014	2013
Participation and Savings		
Participants (homes)	297	411
Energy Savings (kWh)	579,126	837,261
Demand Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$186,732	$164,173
Oregon Energy Efficiency Rider	$8,174	$35,822
Idaho Power Funds	$3,080	$0
Total Program Costs—All Sources	$197,987	$199,995
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.024	$0.017
Total Resource Levelized Cost ($/kWh)	$0.024	$0.017
Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	2.16	
Total Resource Benefit/Cost Ratio	2.16	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2002	

Description

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 a CFL bulb; two replacement furnace filters with installation instructions; testing water heater temperatures for the proper setting; 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. 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.

2014 Program and Marketing Activities

Energy House Calls serviced 297 manufactured homes during 2014, resulting in 579,126 kWh savings. An additional 33 homes were serviced with a test only. Of the homes served, 44 percent were located in the Treasure Valley and 56 percent were outside the Treasure Valley, with 34 percent east of Ada County and 22 percent west of Canyon County. Idaho Power marketed the program, coordinated sub-contractors' performance of local duct-sealing and energy efficiency services for this program, processed sub-contractor paperwork, and paid sub-contractors directly for work performed.

Participation declined in 2014 relative to 2013, with 297 and 411 homes completed, respectively. During the 11 years the program has been active, 10,779 homes have been serviced. Although it is difficult to pinpoint market saturation, there is a concern the program may be in its declining years. Concern over declining numbers prompted specific action in 2014, including an increase of marketing activities planned for the upcoming year and a review of new measures that may provide an increase in savings and encourage reluctant customers.

A variety of marketing tactics were employed to cultivate and capture the interest of a declining target audience. In the first quarter of 2014, 1,225 flyers were sent to churches, senior centers, and mobile home parks to enlist their aid in recruiting participants through their networks.

In spring 2014, Idaho Power tested advertising on Facebook based on results from a Foremost Insurance study that reported 79 percent of residents living in manufactured homes use Facebook and 42 percent visit social media multiple times per day. The results were positive, with 146,663 impressions and 515 click-throughs to the program landing page. The CTR was 0.029 compared to a good industry average of 0.02 to 0.024. Due to the CTR, the ads were rescheduled for November 1 through December 31.

In August, the non-participant survey was distributed to 4,000 potential participants with marketing and contact information in the packet. Contractors reported an uptick in scheduled appointments shortly after the survey was fielded. Collateral was redesigned to emphasize that program participation is free—a concern brought forward by respondents of the non-participant survey.

A September bill insert was sent to all residential customers in Idaho and Oregon. In November, 10,592 postcards were sent directly to all residents of electrically-heated manufactured homes that have not yet participated in the program. Postcards were delivered in either English or Spanish, as appropriate.

As in the past, door hangers continued to be delivered by the contractors to homes in areas where they were completing Energy House Calls visits. Idaho Power delivered postcards from the marketing campaign to Community Action Partnership (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 offer the program to qualified customers.

Although Idaho Power considered Spanish radio opportunities in Canyon County, the company decided to focus efforts on establishing monthly television segments to reach a larger audience. Television interviews began in October and are scheduled to continue into 2015. All direct-mail postcards and the participant and non-participant surveys were available in Spanish and delivered directly to homes identified in Idaho Power's database as Spanish-speaking customers.

Cost-Effectiveness

In 2014, Idaho Power used the same RTF-deemed savings for manufactured-home PTCS duct-sealing as was used in 2013. However, the average savings per home are slightly reduced in 2014 from 2013 due to the size and location of the manufactured homes serviced. Savings are greater in colder heating zones and for double and triple-wide homes than they are for single-wide homes. For more detailed information about the cost-effectiveness savings and assumptions, see *Supplement 1: Cost-Effectiveness*.

Comments received in Case No. IPC-E-14-04 suggested Idaho Power should increase its incentive for this program due to the continued strength of its TRC ratio. Although the incentive for a free program cannot be increased, Idaho Power looked into incorporating additional measures to enhance the value for future program participants. The inclusion of these additional measures will be implemented in 2015.

Customer Satisfaction and Evaluations

To monitor QA in 2014, third-party verifications were conducted by Momentum, LLC on approximately 6 percent of the 297 participant homes, resulting in 18 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.

In August, a program satisfaction survey was mailed to 367 customers that had participated in the program from July 2013 through July 2014. The survey and letter were printed in both English and Spanish. The letters included a link giving the participants an option to complete the survey online. One hundred forty-three participants provided feedback, resulting in a response rate of nearly 39 percent. Key findings included the following:

- Nearly 93 percent of the respondents indicated they were either “very satisfied” or “somewhat satisfied” with their overall program experience, and nearly 88 percent were “very likely” to recommend the program to friends or family.
- When asked to select their reasons for participating in the program, just over 92 percent of respondents indicated that reducing energy costs was a motivating factor.
- Nearly 86 percent of respondents indicated it was “very easy” to participate in the program.
- Following their Energy House Calls participation, just over 57 percent of respondents had noticed a change in comfort in their home. Of those that noticed a change, nearly 98 percent reported that the comfort in their home was either “much better” or “somewhat better” following their participation in the program.
- Finally, respondents “strongly agreed” nearly 75 to 82 percent of the time that the service specialists that completed work on their home were punctual, courteous, professional, and thorough.

In August, a non-participant survey was mailed to 4,000 customers that had not participated in the Energy House Calls program. The survey and letter were printed in both English and Spanish, and the letter included a link giving customers an option to complete the survey online. The non-participant

survey had a response rate of nearly 14 percent, with 542 customers completing the survey. Key findings identified included the following:

- Just over 82 percent of respondents lived in homes built prior to 1999, 66 percent lived on private land, and just over 87 percent owned their homes.
- Approximately 12 percent of respondents indicated they had primary heating systems other than central furnaces with ducts or heat pumps. These customers are ineligible for the program.
- Nearly 84 percent of respondents indicated that based on what they knew of the program, they were "very likely" or "somewhat likely" to participate in the program.
- Nearly 82 percent of respondents indicated lowering energy costs would be a "very motivating" factor for participation. Over 77 percent indicated no/low cost to participate would also be a "very motivating" factor for participation.
- When customers were asked to identify their preferences for how Idaho Power should communicate with them about programs and issues impacting their bills, about 48 percent of respondents said they preferred "promotional material in their Idaho Power bill" and nearly 61 percent indicated a preference for a letter or postcard in the mail.
- Over 63 percent of respondents were unaware of the program prior to receiving the survey.
- For those that were aware of the program, they were asked to select all of the reasons for not participating in the program. Over 26 percent indicated they didn't know the program was free, nearly 25 percent did not fully understand the program, and almost 12 percent did not see the benefits of participating.

2015 Program and Marketing Strategies

During the 11 years Energy House Calls has been in operation, 10,779 electrically-heated manufactured homes have been serviced through the program. 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 2014 direct-mail list contained 10,808 customers, indicating that approximately 50 percent of eligible homes had already been served by the program. An additional percentage of these homes may have had their ducts sealed through Idaho Power's low-income programs, as a few respondents from the non-participant survey indicated they had already participated in a duct-sealing program. Idaho Power will continue to monitor these numbers, but as response rates continue to decline across the service area, there is concern the market may be reaching saturation.

In 2015, more products and services will be offered to program participants during each scheduled visit. Specifically, contractors will install LEDs in main living areas. When water is heated with electricity, contractors will be able to wrap the inlet/discharge pipes from the water heater tank and install high-efficiency showerheads and faucet aerators.

Marketing tactics will continue to include potential participants' most-preferred methods for receiving information—promotional materials in the Idaho Power bill or a letter/postcard in the mail. However, to boost participation in a market that is moving toward saturation, marketing efforts will

double and emphasis will be placed on the variety of services offered. Two bill inserts will advertise program benefit and expected savings, and free participation will be highlighted. A targeted mail campaign direct to residents of manufactured homes that have not yet participated in the program will be conducted in spring and fall. Contractors and CRs will continue to distribute door hangers in mobile home parks and will take every opportunity to distribute program literature at appropriate events and presentations. Additionally, flyers and posters will be mailed to organizations with constituents that may benefit from the program.

Throughout the year, the program will 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

	2014	2013
Participation and Savings		
Participants (homes)	243	267
Energy Savings (kWh)	528,054*	365,370
Demand Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$330,523	$344,217
Oregon Energy Efficiency Rider	$7,612	$4,664
Idaho Power Funds	$5,141	$4,000
Total Program Costs—All Sources	$343,277	$352,882
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.055	$0.053
Total Resource Levelized Cost ($/kWh)	$0.111	$0.104
Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	1.64	
Total Resource Benefit/Cost Ratio	0.83	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2003	

* Includes savings from 282 certified gas-heated ENERGY STAR homes in 2014.

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. This program targets the lost-opportunity energy savings and summer-demand reduction that results 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/home performance specialist (HPS) to meet the stringent ENERGY STAR requirements. This third-party rater is hired by the builder to perform these duties.

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 the HPS and are certified by the Washington State University Extension Energy Program and Building Energy, Inc., organizations that conduct the certification inspections throughout Idaho and Oregon for the EPA. ENERGY STAR homes are more efficient, comfortable, and durable than homes constructed to standard Idaho 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 2014 received a $1,000 incentive per home built to the Northwest ENERGY STAR Single and Multi-Family 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 to use the logo and the ENERGY STAR name to promote themselves as an ENERGY STAR qualified builder.

The Idaho Power program collaborates with many local entities for program promotion, including ENERGY STAR Homes Northwest and builders. A large part of the program's role in 2014 was to provide marketing materials and support for the building contractors associations (BCA) throughout the Idaho Power service area.

2014 Program and Marketing Activities

A majority of the homes certified in 2014 were townhomes. This trend toward ENERGY STAR townhome certifications is a regional trend. In 2014, 5 of the 240 ENERGY STAR home certifications in Idaho were single-family homes. The decrease in the number of participating homes in 2014 as compared to 2013 is due to fewer ENERGY STAR Homes, employing heat pump technology, being certified in Idaho Power's service area. The trend the past couple of years has been toward an increase in multi-family construction Idaho Power's service area. In 2013, seven multi-family ENERGY STAR developments were constructed. In 2014, five multi-family ENERGY STAR developments were constructed, resulting in 61 fewer homes being certified in 2014.

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 2014. 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. The company also 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 customer's billing statements informing them of Parade of Homes events in their area. In addition, the company sponsored the IBCA annual winter and summer meetings. A half-page ad was placed in the BCASWI monthly November and December newsletters to promote the program and the builder incentive.

In fall 2014, a bill insert was sent to all residential customers in the Idaho Power service area promoting the ENERGY STAR Homes Northwest program. The company ran print ads for four weeks in real estate sections of daily newspapers in Boise; Pocatello; Canyon County; and Ontario, Oregon. During this same timeframe, a digital behavioral ad campaign ran for two months across Idaho Power's service area, totaling 2,683,717 impressions/ads served and including such real estate sites as zillow.com. A letter to residential builders was mailed in spring 2014 reminding builders of the benefits of building ENERGY STAR homes and of the available builder incentive.

Idaho Power administered a process evaluation of the ENERGY STAR Homes Northwest program in 2013. This evaluation was performed by third-party contractor TRC Energy Services. In general, TRC Energy Services found the ENERGY STAR Homes Northwest program was successfully meeting goals and delivering energy savings. TRC Energy Services noted this was particularly impressive given

the challenges of the recent market downturn and the exclusion of customers with natural gas heat from the program. Based on the results of this evaluation, TRC Energy Services provided several recommendations for program improvement. The recommendations and Idaho Power's responses are described below.

TRC Energy Services recommended continued support from the company for the multi-family and townhome market, identification of other markets that could be building electrically heated homes, and targeting marketing efforts toward these sectors. In 2014, the company continued to support the multi-family ENERGY STAR homes market through certification of 235 multi-family homes and through its continued support of local BCAs.

The evaluators recommended Idaho Power develop an argument for the value of the ENERGY STAR label and verification and provide this (through talking points or a one-page flyer) to CRs, HPSs, and builders and to work with other entities to develop these talking points. Idaho Power determined the marketing materials, and the talking points developed by Idaho Power and Northwest ENERGY STAR Homes, currently available to CRs, HPSs, and builders appropriately addressed the argument for the value of the ENERGY STAR homes certification.

TRC Energy Services recommended Idaho Power provide continued support for the HPSs, meet with them one-on-one to understand their barriers to participation, and work with them to overcome these barriers. In particular, revisit the QA procedure for the program. In 2014, Idaho Power continued to maintain good relationships with the active HPSs and communicated multiple times throughout the year through email, phone calls, and face-to face visits. NEEA manages the QA function of the Northwest ENERGY STAR Homes program. While Idaho Power uses the QA results for its program compliance within the company's service area, the procedures used are dictated by NEEA. The company will encourage NEEA to communicate with the raters concerning QA procedural issues.

The evaluators recommended Idaho Power update the contractor list so it contains only builders that provide accurate information about the program, and to periodically update this list (e.g., biannually) by reaching out to contractors. In response to this recommendation, the builder list on the company ENERGY STAR Homes Northwest website is now a link to the Northwest ENERGY STAR Homes builder listing, which is current and updated frequently.

Another recommendation was to test the hypothesis reported by Idaho Power staff that multi-family builders are the primary group building homes with heat pumps by analyzing the residential nonparticipant survey results and through interviews with BCA staff. Idaho Power concluded multi-family homes with heat pumps versus single-family homes with heat pumps being submitted for ENERGY STAR Homes certification via the Northwest ENERGY STAR Homes database strongly indicated a current regional trend that multi-family builders are the primary group building heat pump homes.

The evaluators recommended using the regional program database to identify builders that are building electrically heated homes in Idaho Power's service area but do not qualify for the Idaho Power program. Idaho Power ascertained that all homes built using heat pump technology and meeting all Northwest ENERGY STAR Homes criteria currently qualify for the Idaho Power program.

TRC Energy Services recommended Idaho Power develop new relationships between the CRs, program specialist staff, key homebuilders, heat pump contractors, and heat pump suppliers and to reconnect with previously participating builders. In 2014, the program specialist and the CRs continued to establish and maintain new and existing relationships primarily through BCA builder events and industry-related meetings. The primary relationship within the ENERGY STAR Homes Northwest

program and company staff was with builders. CRs also formed relationships with heat pump contractors through the Idaho Power heating and cooling program. The company sent out a letter to all current and past ENERGY STAR Homes Northwest builder participants in April 2014 to update them on the program and the incentives offered.

Another recommendation was to provide additional builder training addressing the benefits of heat pump technology, electric heat pump home design, and design strategies to reduce electricity use in homes. While there was no on-site, heat pump specific training done in Idaho Power's service area in 2014, Northwest ENERGY STAR offered a DHP webinar in November 2014. All Northwest ENERGY STAR builder and HVAC contractor partners were encouraged to attend this event.

Last, the evaluators recommended Idaho Power provide CRs with goals for marketing the program, such as contacting a certain number of builders or presenting at a BCA meeting about the program; have CRs use the heat-pump flyer as a talking point with builders; and have CRs attend program trainings or heat-pump presentations with builders to learn about the program and develop relationships with local builders. Of note, Idaho Power CRs don't have specific goals that require them to contact a certain number of builders, but they are asked to be involved in their local BCA chapter where the opportunity to meet and establish relationships with builders is high. The CRs have been and continue to be active in the local BCA chapters where they come into direct contact with a majority of builders in their area. When program trainings are held, CRs are invited and encouraged by Idaho Power to attend.

Cost-Effectiveness

Idaho Power used the same cost-effectiveness savings assumptions from the RTF for ENERGY STAR Homes Northwest for 2014 as were used in 2013. While savings assumptions remained the same for 2014, the RTF-calculated NEBs were added to the cost-effectiveness calculations to account for water and avoided maintenance savings over the lives of these efficient homes. The inclusion of NEBs helped improve cost-effectiveness for the different building packages and climate combinations from a TRC perspective, but the townhome/multi-family homes in the Bose–Nampa–Caldwell climate zone, which is the primary home submitted since 2012, is still not cost-effective from a TRC perspective.

Idaho Power has participated in ENERGY STAR Homes Northwest, a regionally coordinated initiative, supported by a partnership between Idaho Power and NEEA, since 2004. The company has been a continued proponent and driver of the increased awareness of the ENERGY STAR Homes Northwest brand. The majority of electrically heated ENERGY STAR Homes Northwest certifications are from several large multi-family builders exclusively building homes to ENERGY STAR specifications employing electric heat pump technology.

Because of Idaho Power's support of NEEA and the ENERGY STAR Homes Northwest brand, Idaho Power is claiming savings for 282 natural gas-heated, ENERGY STAR certified homes certified in Idaho Power's Idaho service area in 2014. These savings account for 195,372 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.

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

Customer Satisfaction and Evaluations

The HPS works with 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 HPS ensures the home passes a blower door test, an air-duct leakage test, and combustion back-draft tests.

The state-certifying organizations (SCO) perform QA inspections. The Washington State University Energy Extension Program is under contract with NEEA to perform QA and technical assistance duties within Idaho. For QA purposes, 5 percent of homes certified in the ENERGY STAR Homes Northwest program are reviewed by the Washington State University Energy Extension Program. This is a technical verification of the homes. All of the homes randomly chosen for QA in Idaho Power's service area passed the QA inspection process in 2014.

In 2014, the Customer Research and Analysis team administered an impact evaluation using Tetra Tech to provide third-party analysis. The findings from this evaluation found that the ENERGY STAR Homes Northwest program has well-established program design and delivery processes that are supported by the program tracking systems, program documentation, and savings tools. The impact evaluation approach emphasized compliance with the RTF energy savings as the basis for verification of savings.

Results of the impact evaluation indicated that 2013 ex-post verified savings were 353,828 kWh compared to 365,370 kWh ex-ante claimed savings, resulting in a gross realization rate of 96.8 percent. The driver of the difference in the overall kWh realization rate was adjustments made to seven townhomes removed from the program savings.

Tetra Tech also identified several recommendations for the ENERGY STAR Homes Northwest program as a result of the impact evaluation. The evaluator recommended continuing to use the program tracking system for savings assignments and noted that in 2014, Idaho Power made recent improvements to their energy efficiency programs database to assist in automating savings assignments and prevent the need to develop savings assignments outside the database. Tetra Tech also noted that improving the database usability and allowing for the automation of look-up functions to occur within the database will also assist in reducing potential error, enhance the quality review process, and help facilitate reviews. This will also ensure other parameters are entered correctly by allowing for data checks across fields. The evaluator stated that an additional result would be avoiding misalignment between participating homes and the assigned savings values. In response, in 2014 Idaho Power enhanced database functionality and will continue to automate database tracking systems as needed.

Tetra Tech recommended the continued use of RTF categories and continued use of the RTF proven measure savings, but recommended Idaho Power develop savings assignments and calculations with a clear alignment with the RTF savings values for single-family and multi-family homes. Tetra Tech stated that a unified participant tracking and savings workbook could contain such information and provide an efficient and standardized approach that can address potential future program regional complexity. Idaho Power uses the RTF proven measure savings, and the independent values for single-family and multi-family savings are assigned in the DSM Customer Load and Resource Information System (CLRIS) application based on housing type.

Another recommendation was to investigate methods for obtaining project-level documentation. Tetra Tech stated the program and a future evaluation effort may benefit by having greater access to project-level details covering project eligibility and greater technical details. For the benefit of the program and evaluators, Tetra Tech recommended Idaho Power work with NEEA and their contractors to improve the level of detail captured for each project and made available to Idaho Power for the Builder Option Package inspection results for each home. In response, Idaho Power considered this recommendation and determined the documentation provided for each certified ENERGY STAR home, via the Northwest ENERGY STAR Homes database, provides the necessary detail for Idaho Power to pay incentives to builders. This documentation, the *Northwest ENERGY STAR Homes Program Report*,

denotes that all testing and inspection on the home meets or exceeds all minimum values of ENERGY STAR Home certification. This report also denotes the certified status of the home, states that each program checklist was completed successfully, and provides the performance testing results.

Last, the evaluators recommended working to increase QA inspections within the company's service area and working with NEEA and their contractors to better understand the protocols and information obtained and documented during QA inspections in Idaho Power's service area. This recommendation is to ensure appropriate home parameters are captured for the current and future needs of Idaho Power evaluations and that a minimum number of Idaho Power ENERGY STAR certified homes are QA inspected each year. The evaluator recommended that, absent the ability of Idaho Power to ensure a minimum level of service for QA, Idaho Power should consider conducting and documenting its own QA process using the same protocols as the NEEA initiative. In response to the recommendation, in 2014 Idaho Power began discussions with NEEA to ensure a representative number of QA inspections of heat pump homes in Idaho Power's service area that qualify for the Idaho Power incentive. A copy of the complete report is included in *Supplement 2: Evaluation*.

2015 Program and Marketing Strategies

Builders involved in ENERGY STAR Homes Northwest during 2015 in Idaho Power's service area will receive a $1,000 incentive per home built to the Northwest ENERGY STAR Homes specifications using heat pump technology standards. Builders showcasing their electric heat pump home in a BCA Parade of Homes event will receive the standard $1,000 incentive plus an additional $500 parade marketing incentive.

Idaho Power plans to continue marketing efforts to help 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. Marketing materials will be available for use by builders. Bill inserts will be sent to all residential customers in May. Bill messaging is planned in June, July, and August to support the various BCA Parade of Homes events throughout Idaho Power's service area.

A direct-mail letter to builders is planned for 2015. This direct-mail piece will highlight the requirements and the Idaho Power builder incentive for building to Northwest ENERGY STAR Homes specifications. In addition, the program will be promoted in the *Idaho Business Review* in issues targeting residential contractors and builders.

NEEA is planning a 2015 transition of the Northwest ENERGY STAR Homes program to the national EPA ENERGY STAR Homes program and to local market partners/stakeholders. NEEA will continue to provide program and technical oversight of ENERGY STAR Home Northwest through 2015 with plans to then transfer oversight to the national program. The program will be available for builders if they so choose to continue building ENERGY STAR certified homes under the national program.

A second program, NEEA's Next Step Home program, is still in the pilot stage. At the end of 2014, NEEA began developing the Phase III recruitment plan to continue building participation and awareness in the Next Step Home pilot. Homes built during Phase III will incorporate Next Step Home minimum requirements, guidelines, and best practices learned from Phase I and II. Despite NEEA recruiting efforts, there are no builders who have, as of yet, signed on to build a Next Step Home in Idaho Power's service area.

Heating & Cooling Efficiency Program

	2014	2013
Participation and Savings		
Participants (projects)	230	210
Energy Savings (kWh)	1,099,464	1,003,730
Demand Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$340,551	$317,973
Oregon Energy Efficiency Rider	$14,627	$11,700
Idaho Power Funds	$6,836	$0
Total Program Costs—All Sources	$362,014	$329,674
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.022	$0.022
Total Resource Levelized Cost ($/kWh)	$0.075	$0.050
Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	3.74	
Total Resource Benefit/Cost Ratio	1.09	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2007	

Description

The H&CE Program provides incentives to residential customers for the purchase and proper installation of qualified heating and cooling equipment.

The objective of the program is to acquire energy savings by providing customers with energy-efficient alternatives for electric space heating. Incentive payments are provided to both residential customers and HVAC participating contractors who install eligible equipment. The eligible measures in 2014 include air-source heat pumps, open-loop water-source heat pumps, and evaporative coolers.

Heating and A/C companies authorized by Idaho Power as participating contractors for the program are required to perform all installations, with the exception of evaporative coolers, which can be self-installed.

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

- Customer incentive for replacing an existing air-source heat pump with a new air-source heat pump is $250 for a minimum efficiency 8.5 heating seasonal performance factor (HSPF).
- Customer incentives for replacing an existing electric, oil, or propane heating system with a new air-source heat pump is $400 for a minimum efficiency 8.5 HSPF. Participating homes with oil or propane heating systems must be located in areas where natural gas is unavailable.

- Incentive for customers or builders of new construction installing an air-source heat pump in a new home is $400 for a minimum efficiency 8.5 HSPF.
- Customer incentive for replacing an existing air-source heat pump with a new 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, oil, or propane heating system with a new 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 with new construction installing an open-loop water-source heat pump in a new home is $1,000 for a minimum efficiency 3.5 COP.
- The evaporative-cooler customer incentive is $150.

2014 Program and Marketing Activities

The expansion of Idaho Power's network of participating contractors remained a key growth strategy for the program. 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 eight companies to the list of participating contractors in 2014.

Idaho Power held nine training sessions for contractors in 2014. For a company to be eligible to join the program as a participating contractor, they must have participated in this required training that provides general instructions on heat pumps and program guidelines. These training sessions remain an important part of the program because they create opportunities to invite additional contractors into the program.

To increase contractor participation in the program, stronger relationships with the equipment wholesalers was necessary. In Idaho Power's service area, there are numerous wholesalers supplying heat pumps to the contractors. Idaho Power met with several of these wholesalers in Idaho Power's service area to share helpful information and to encourage them to promote the program to their contracting customers.

Idaho Power uses Honeywell, Inc., a third-party contractor, to review the incentive applications and perform OSVs. This contractor provides direct support to participating contractors and the residential program participants. Honeywell offers local assistance through representative visits to contractors at their businesses as needed. Using a program database via a portal developed by Idaho Power, Honeywell reviews and submits incentive applications for Idaho Power payment. This allows Idaho Power to maintain the database within the company's system, which is secure yet accessible to the third-party contractor.

Multiple marketing tactics were used for Idaho Power's HC&E Program. Approximately 3,000 radio ads ran on over 20 radio stations for six weeks throughout Idaho Power's service area. In spring 2014, a digital behavioral ad campaign was launched and resulted in 771,211 ads displayed on pages viewed by people browsing the internet over two months.

A contractor portal was launched in 2014. The portal allowed authorized contractors access to a specific area of Idaho Power's website where they could customize pre-approved marketing pieces with their own business name, address, and phone number. Two door hangers were offered for insulation

contractors, two door hangers for window contractors, and two fliers for participating contractors in the HC&E Program. The *Demand-Side Management 2013 Annual Report* stated the contractors would be asked to comment on the portal during 2014. Comments were not pursued due to the portal launching the third quarter of the year, which limited contractors' time to try the portal in 2014.

The *Demand-Side Management 2013 Annual Report* mentioned possible changes to the HC&E webpages. Changes to the HC&E webpages were not made in 2014 because on a separate project, the company began working on a website redesign to improve navigation on the Energy Efficiency website. The decision was made to wait until that work was completed before any changes were made to HC&E webpages. The website navigation changes did not result in any changes being made to the Energy Efficiency website during 2014.

A direct-mail campaign was conducted in April 2014. Over 27,000 letters were sent to homeowners of electrically heated homes. In addition, information about the heat pump program was included in a postcard sent to people who purchased a home within the previous six months. Bill inserts and newspaper ads rounded out the ongoing marketing and promotion of the HC&E Program.

Idaho Power administered a process evaluation of the H&CE Program in 2013, performed by third-party contractor TRC Energy Services. Based on the evaluation results received in 2014, TRC Energy Services identified program trends, successes, and barriers, then developed recommendations to address the barriers.

It was recommended Idaho Power gain a better understanding of the eligible market, such as customers with electric, oil, or propane heat and their barriers for program participation, to better target marketing efforts. In response to this recommendation, Idaho Power participated in seven local trade shows and benefited from one-on-one discussions with residential homeowner attendees.

The evaluators recommended Idaho Power provide contractors with co-branded marketing materials, case studies, or cost calculation examples to assist them with their marketing efforts. A new online contractor portal was already in development and was launched on the Idaho Power website late summer 2014. This password-protected portal provided participating contractors with pre-designed colored marketing fliers printable by the contractor for distribution. Fliers could be personalized with the contractor's business name, address, logo, and phone number.

TRC Energy Services recommended Idaho Power consider requiring contractors to attend refresher training and/or deliver a minimum number of projects per year to continue to be listed on the program website. In 2014, the H&CE Program incorporated this recommendation by providing nine refresher training sessions and requiring each participating contractor to submit a minimum of one application per year beginning in 2015 to avoid being placed on inactive status.

Another recommendation was that program requirements be described clearly and prominently in marketing collateral and on the website. In response to this recommendation, all marketing collateral and web content were reviewed. Improvements were made to ensure the reader realized incentive requirements apply.

It was recommended that Idaho Power CRs be engaged in the contractor training sessions routinely provided by Idaho Power. Idaho Power invited the CRs to sessions in 2014, and several CRs attended the sessions.

TRC Energy Services recommended Idaho Power annually contact the participating contractors to ensure there is at least one installing technician trained by the program. This recommendation was made due to employee turnover experienced with some participating contractors. Idaho Power provided training where there was a lack of a trained technician.

The evaluators recommended surveys be initiated to gather various types of program feedback from participating contractors. This has not been implemented because Idaho Power decided face-to-face meetings between participating contractors, the CRs, and the program specialist gathered program feedback promptly and effectively.

It was recommended a cash-based incentive be offered to participating contractors in an attempt to drive additional and more specific types of participation. Idaho Power has not implemented this recommendation because research data was unavailable in the Idaho Power service area that identifies what the common reason is for variability in contractor participation and what the key motivation tactics should be. Going forward, Idaho Power will investigate if a contractor incentive is needed to increase participation in its programs.

Cost-Effectiveness

Idaho Power used the same cost-effectiveness unit energy saving (UES) assumptions for the H&CE Program during 2014 as were used in 2013. For 2014, Idaho Power calculated participant-cost averages used for the cost-effectiveness analysis based on Idaho Power-specific project data over two years (2013–2014) to estimate typical project costs instead of relying on regional averages.

Due to the lower alternative costs from the 2013 IRP, water-source heat pumps and heat pump conversions to 8.50 HSPF became non cost-effective. However, Idaho Power determined that 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 November 4, 2014, and subsequently re-filed it on February 11, 2015. The case is still pending. 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 10 percent of the completed installations in the Idaho Power service area. These OSVs verified 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.

2015 Program and Marketing Strategies

Idaho Power will sponsor and provide training to new and existing contractors in the program 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.

Expanding the network of participating contractors remains a key strategy for the program because the performance of the program is substantially dependent on the contractors' abilities to promote and leverage the measures offered. Idaho Power's goal is to support contractors currently in the program while continuing to add 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 2015.

To increase participation in the program in the Idaho Power service area, the program specialist will work to strengthen relationships with equipment wholesalers. To accelerate the wholesalers' abilities to increase contractor awareness of the program, the program specialist will meet with the wholesalers and share information.

The 2015 marketing strategy will include proven tactics previously used and new methods. Since homeowners make more improvements to their home during the first two years of ownership, the company plans to continue to target new customers in the first six months of new-home ownership. Postcards will be mailed to these new customers, raising awareness of the incentives available to them. The strategy will include many marketing tactics, such as bill inserts, print ads in newspapers, and direct-mail letters. Social media, such as Facebook, will also be used.

New marketing pieces will be added to the contractor portal over time as needed. In 2015, it has not yet been determined if/when portal feedback would be formally solicited from the contractors.

Home Energy Audit

	2014	2013
Participation and Savings		
Participants (homes)	354	n/a
Energy Savings (kWh)	141,077	n/a
Demand Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$164,579	n/a
Oregon Energy Efficiency Rider*	−$248	n/a
Idaho Power Funds	$6,318	n/a
Total Program Costs—All Sources	$170,648	n/a
Program Levelized Costs		
Utility Levelized Cost ($/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	
Program Characteristics		
Program Jurisdiction	Idaho	
Program Inception	2014	

* Reversal of a 2013 charge to the Oregon Rider.

Description

The Home Energy Audit is an in-home energy evaluation by a certified, third-party 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 CFLs
- 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*. 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. Multi-family homes heated by a central heating unit or that aren't 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 $84.

2014 Program and Marketing Activities

In January 2014, the program launched in Blackfoot with an open house at the Bingham County Senior Center. The public was invited by direct-mail letters, newspaper ads, an article in the Blackfoot Chamber of Commerce newsletter, and posters located in the Bingham County Senior Center. The open house was later written up in the *Morning News* in Blackfoot. Three additional open houses were held in Homedale, Gooding, and Salmon. In addition to letters, newspaper ads, and posters, radio spots were used in Salmon, as well as a press release sent to local media.

Participants for the program were recruited through small batches of 1,000 to 2,000 direct-mail letters. 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 companies were selected to serve the program. Audits were randomly assigned to the HPSs serving each area, grouping locations for each HPS to save on travel time and expense.

In 2014, 354 audits were completed, surpassing the 2014 goal of completing 300 energy audits. The average age of participating homes was 36 years old. The homes were built between 1900 and 2013. Home sizes ranged from 700 square feet (ft^2) to 7,920 ft^2, with 2,463 ft^2 being the average home size. Figure 10 shows the number of participating homes located in various counties, demonstrating considerable program expansion from a Boise-based audit project to a program reaching the edges of the Idaho Power service area.

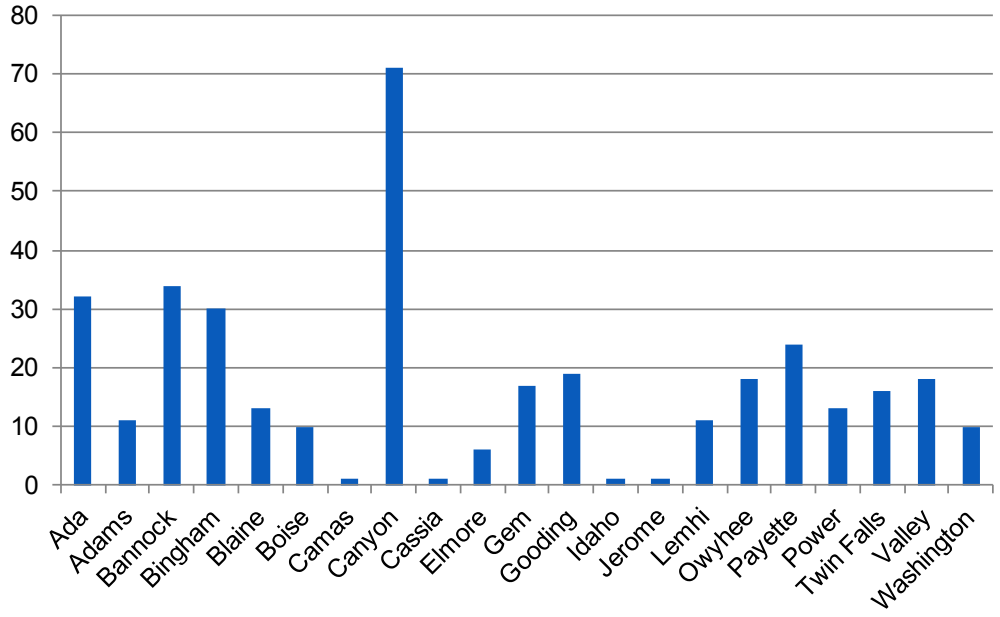

Figure 10. Summary of participating homes by county

The program was designed for all-electric homes only. All written communication sent to customers and the website included that the program was limited to all-electric homes. If the application was taken over

the phone, the customer was asked if their home had electric heat and water heating, and non-electric sources were turned down. In addition, when the HPS contacted the customer to schedule the appointment, the customer was asked if the home had electric heat and water heating. Non-electric sources were turned down. The electrically heated homes used a variety of heating styles, with heat pumps being the most common (153), then furnaces (99) and wall heaters (96). Eight of the 354 participating homes audited were not electrically heated homes, despite numerous efforts to ensure participants had all-electric homes.

Each HPS collected data on appliances and lighting in each home. The average number of incandescent lights per home was 24, 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 11 indicates the total quantity of items installed by measure.

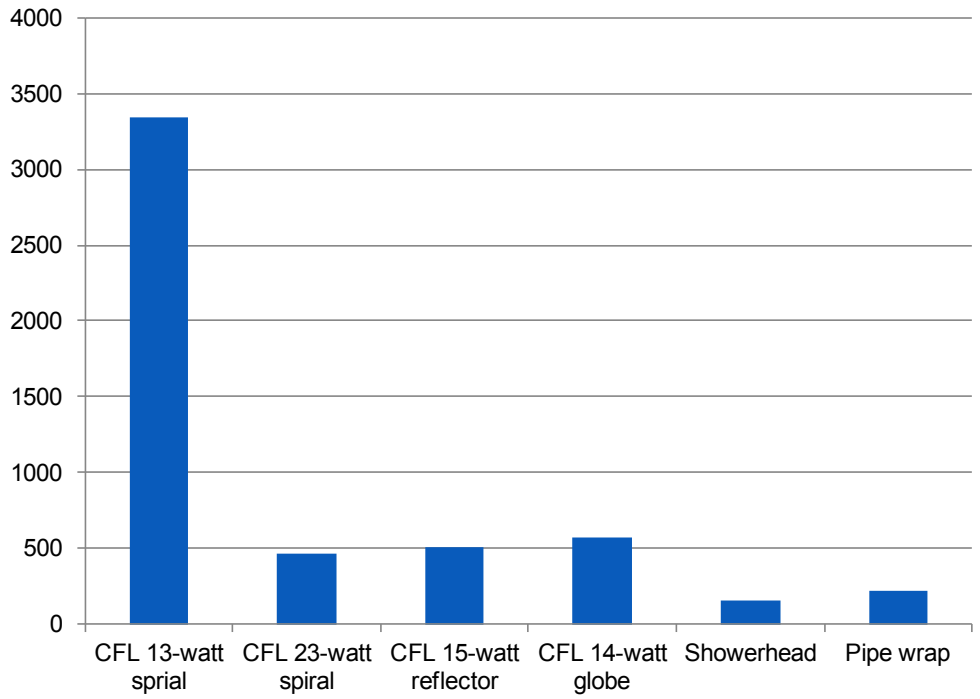

Figure 11. Measures installed in participating homes

The QA goal for the program was inspection of 10 percent of all audits, translating into approximately 35 audits in 2014. Twenty-seven QAs were completed in 2014, with all audits passing inspection. The 10 percent audit goal was unmet in 2014 because it was challenging to find participants willing to allow the auditor into their home for a 1- to 2-hour audit, especially if the participant worked outside the home.

Cost-Effectiveness

In IPUC Order No. 32667, the commission encouraged “the Company to take other opportunities to improve customer’s energy I.Q. and to educate them about the Company’s energy efficiency programs.” 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.

For the items installed directly in the homes, Idaho Power used the RTF savings for direct-install bulbs, which range 17 to 29 kWh per year. The RTF savings for 2.0 gallons-per-minute (GPM) showerheads directly installed in a home are 139 kWh per year. In Idaho Power's *Energy Efficiency Potential Study*, Applied Energy Group (AEG) estimates that pipe wraps save 150 kWh per year.

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 in July and November to a total of 225 program participants. Ninety-five participants responded to the survey, resulting in a response rate just over 42 percent. 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, just under 94 percent of respondents "strongly agreed" or "somewhat agreed" they would recommend the program to a friend or relative, and just under 94 percent of respondents "strongly agreed" or "somewhat agreed" they were satisfied with their overall experience with the program.

Almost 97 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. Of the 95 survey respondents, 55 customers rated the difficulty of accessing the report online. Of those 55 customers, just under 77 percent of customers 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" 96 to 100 percent of the time.

When asked how strongly they agree or disagree with statements around what they learned during the audit process, just over 95 percent of respondents "strongly agreed" or "somewhat agreed" they were more informed about the energy use in their home. Almost 88 percent indicated they "strongly agreed" or "somewhat agreed" they were more informed about energy efficiency programs available through Idaho Power. Just under 87 percent indicated they "strongly agreed" or "somewhat agreed" they learned what no- to low-cost actions they could take.

After the audit, just over 51 percent of respondents indicated they visited the Idaho Power website, approximately 61 percent unplugged appliances when not in use, 42 percent signed up for myAccount, and almost 75 percent shared their experience with relatives and/or friends. Sixty-five percent of the respondents indicated they replaced additional incandescent light bulbs with CFLs or LEDs. Nearly forty-one percent indicated they serviced their heating equipment, and 38 percent serviced cooling equipment. Additional information on the actions that 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. Almost seventy-six percent of respondents indicated the biggest benefit they found in the audit was personal satisfaction, with nearly 71 percent citing raised awareness of energy use, just over 58 percent citing cost savings, 57 percent citing home improvement, approximately 42 percent citing

comfort, and just over 39 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, nearly 74 percent of respondents indicated the biggest barrier was cost. Figure 12 below shows benefits experienced by category and percent.

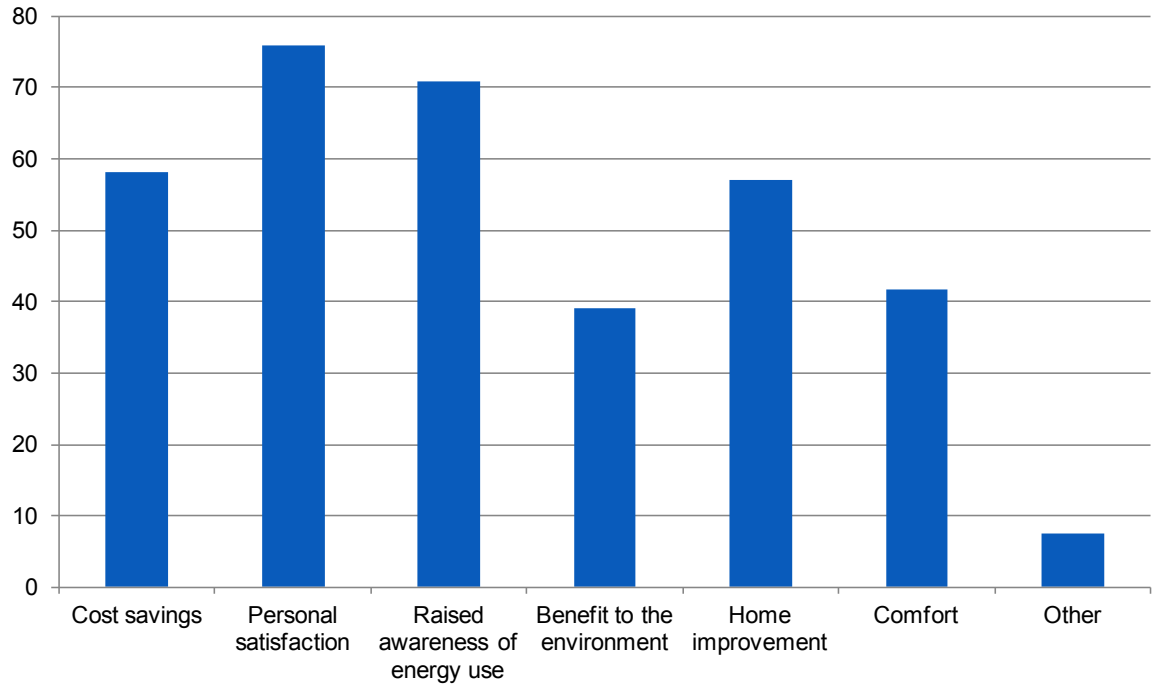

Figure 12. Program participants' benefits experienced

In 2014, Idaho Power administered a process evaluation of the Home Energy Audit program. The analysis was performed by Johnson Consulting Group. The overall conclusion of the evaluation was that the Home Energy Audit program is well designed and well run. The evaluation stated a key finding was the program had a successful launch because the design leveraged the "lessons learned" from the Boise City Audit Project. An additional finding from the evaluation was that the Home Energy Audit program incorporated most of the marketing best practices shown to be effective in promoting successful weatherization, energy audits, and "whole house" program approaches. Johnson Consulting Group also found customer and contractor feedback to be positive based on in-depth interviews. The final key finding of the evaluation was that the program participation process was quick and easy. Johnson Consulting Group's evaluation offered several recommendations for consideration. The first recommendation was to change the program name to *not* include the word audit. However, after careful review of the terms customers repeatedly used when asking for this type of service when calling or writing, Idaho Power learned that the word "audit" was the most-used term by customers. Thus, "audit" is included in the program's name.

The rest of the recommendations were around direct-install measures, customer surveys, follow up, and HPS work. For the direct-install measures, it was recommended to review the mix of measures available to ensure they are still cost-effective, appropriate, and correct for the homes. Pipe wrap had already been identified not fitting all pipes, and a larger size was made available. LEDs were also identified as a potential direct-install measure, and a cost analysis was reviewed.

Johnson Consulting Group's evaluation recommended considering a formal customer survey to assess satisfaction levels and to identify barriers preventing customer follow-through on auditor

recommendations. Idaho Power decided it wouldn't be prudent to spend additional funds for another survey because the current participant survey conducted in-house is sufficient to assess these items. Another recommendation was to develop a protocol or procedure for reaching out to customers and encouraging them to follow up on the energy efficiency recommendations. A procedure was developed to address customer follow-up and incorporated into the new HPS contracts for 2015.

The final recommendations were around additional training and guidance for the HPS. Two of the recommendations were around controlling what the HPS included in the customer's report. While guidelines are provided, such as to educate and encourage participation in energy efficiency programs, the HPSs are independent contractors and therefore have some leeway in what the contractors include in an audit. The basic parts of the audit are consistent for all auditors so all participants have a consistent experience. However, each home is different, plus the auditor is on-site inspecting the home and talking to the customer. Based on what the auditor observes and conversations with the customer, auditors need the latitude to personalize the recommendations as much as possible. Additional training on the audit software and its capabilities occurred in 2014. Although it was covered in the Statement of Work, one auditor was still unaware he was allowed to market his services to customers post-audit. That information has been directly reiterated with all auditors. The 2015 program changes resulting from a review of the process evaluation recommendations are described in detail below. A copy of the complete report is included in *Supplement 2: Evaluation*.

2015 Program and Marketing Strategies

With the cost of LEDs decreasing and customer interest in this technology increasing, two LEDs and 18 CFLs will be available for each participating home starting January 1, 2015. This change was made due to customer and HPS feedback and a recommendation from the process evaluation to review the mix of measures available.

Starting January 1, a new procedure for reaching out to customers to follow up on the audit recommendations as recommended by the process evaluation requires the HPS to perform a follow-up call to participants approximately 10 to 14 days after their audit. This change is expected to provide several benefits. First, the HPS will be able to verify the customers received reports. Second, the call provides a prompt and an opportunity for participants to ask their HPS additional questions. Third, the call allows the HPS to verify customers' understanding of the specific recommendations for their homes and what actions they can take next.

To account for the additional time the follow-up calls will take—and to make the fees more in-line with industry standards—the fee to the auditor will be increased in 2015 from $101 to $201. The customer fee will remain at $99.

While the HPSs were provided a program handbook to study, the program process evaluation showed it would be beneficial to provide the information verbally to each HPS. In early 2015, each HPS will take part in a live training session. The training will focus on ensuring a deep understanding of the program, including goals, standards, the timeline, and program flow. It will include information on other energy efficiency programs to promote and the use of myAccount. It will also include feedback from the surveys and areas for improvement.

A trade show booth backdrop and interactive webpages have been created using a cutaway house design to promote the Home Energy Audit program as well as demonstrate energy-saving tips for customers. These new tools will be used and promoted in 2015.

Home Improvement Program

	2014	2013
Participation and Savings		
Participants (homes)	555	365
Energy Savings (kWh)	838,929	616,044
Demand Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$315,616	$299,032
Oregon Energy Efficiency Rider	$0	$0
Idaho Power Funds	$9,101	$465
Total Program Costs—All Sources	$324,717	$299,497
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.020	$0.025
Total Resource Levelized Cost ($/kWh)	$0.055	$0.090
Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	4.17	
Total Resource Benefit/Cost Ratio	1.51	
Program Characteristics		
Program Jurisdiction	Idaho	
Program Inception	2008	

Description

The Home Improvement Program offers incentives to homeowners for upgrading insulation and windows in electrically heated homes. To qualify for an incentive under this program, the home must be a single-family home, a multi-family structure three stories or under, or a manufactured home in Idaho Power's service area in Idaho. The home 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.

Participating insulation contractors must successfully complete a two-day contractor training course delivered by CLEAResult and Idaho Power. Customers must use a participating contractor to qualify for the Idaho Power incentive, processed by Idaho Power.

The program details include the following:

- Customer incentives for attic insulation, wall insulation, and under-floor insulation require prescriptive air- and duct-sealing.
- Customer incentives to Idaho residential customers in the Idaho Power service area for additional insulation professionally installed are 15 cents per ft^2 for attic insulation, 50 cents per ft^2 for wall and under-floor insulation, and 30 cents per linear foot for air- and duct-sealing.

- 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.
- The existing insulation level under floors must be R-5 or less, and the final R-Value must be R-30.
- Customer incentives are $2.50 per ft^2 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.

2014 Program and Marketing Activities

At the beginning of the year, webpages for the Home Improvement Program were updated and improved to make customer navigation easier. A contractor portal was launched in 2014. The portal allowed contractors access to a specific area of Idaho Power's website where they could customize pre-approved marketing pieces with their own business name, address, and phone number. Currently offered on the portal for use are two door hangers for insulation contractors, two door hangers for window contractors, and two fliers for HVAC contractors. New marketing pieces will be added over time as needed. A video was produced at the beginning of the year to highlight program measures and to provide customers with a visual of how the upgrades are performed. This video can be viewed at idahopower.com/homeimprovement. A Facebook ad campaign ran from June to September, reaching approximately 310,563 customers. A series of newspaper ads ran multiple times during 2014. Newspaper ads were placed in publications that serve rural areas where there is a higher concentration of electrically heated homes (a program eligibility requirement). Digital behavioral ads ran during mid-March to the end of May. The number of impressions/ads served totaled 771,024. Two information bill inserts were sent out, one in February and one in June, and a targeted direct-mail letter was sent in fall 2014. In addition, window clings and retail signage were created and used in retail locations in eastern Idaho.

Cost-Effectiveness

In 2014, Idaho Power used the same savings and cost-effectiveness assumptions as were used in 2013. For all measures, deemed-savings values specific to Idaho Power's heating and cooling climate zones the company used published by the RTF, including cooling savings based on the RTF's deemed-savings specifications for single-family home weatherization UES values. Incremental costs for the calculation of TRCs were estimated from customer project data for insulation projects, while regional RTF cost averages were used for efficient windows. Idaho Power did not have adequate window costs for baseline efficiency windows. 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 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 37 QA inspections completed in 2014, no issues were reported.

The program incentive application form included an optional question asking customers how they heard about the program. Of the 555 applications, 506 customers answered the marketing question. The results are as follows:

- 219 respondents (43%) heard about the program from a program contractor.
- 148 respondents (29%) heard about the program from an Idaho Power bill insert.
- 58 respondents (11%) heard about the program from the Idaho Power website.
- 44 respondents (9%) received a referral from a friend or acquaintance.
- 9 respondents (2%) heard about the program from a home improvement show or fair.
- 6 respondents (1%) heard about the program from a newspaper or online ad.
- 22 respondents (4%) heard about the program from a direct mailer.

2015 Program and Marketing Strategies

Numerous marketing activities are planned for 2015. Two informational bill inserts are planned. A targeted direct-mail letter is scheduled for February. Online ads will include both Facebook and behavioral network ads. Print ads will be placed in rural publications to target customers with electrically heated homes. The contractor portal will be populated with additional marketing pieces. Marketing materials will be updated as needed.

Home Products Program

	2014	2013
Participation and Savings		
Participants (appliances/showerheads)	10,061	13,792
Energy Savings (kWh)	652,129	885,980
Demand Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$212,787	$391,348
Oregon Energy Efficiency Rider	$9,250	$14,117
Idaho Power Funds	$5,139	$50
Total Program Costs—All Sources	$227,176	$405,515
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.031	$0.041
Total Resource Levelized Cost ($/kWh)	$0.041	$0.071
Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	1.94	
Total Resource Benefit/Cost Ratio	4.52	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2008	

Description

The Home Products Program provides an incentive payment to Idaho and Oregon residential customers for purchasing ENERGY STAR® qualified appliances. ENERGY STAR qualified appliances and products must meet higher, stricter efficiency criteria than federal standards. In 2014, the measures and related incentives included ENERGY STAR qualified refrigerators ($30) and freezers ($20).

Participants have two options to submit their application. They may complete a mail-in incentive application and submit it to Idaho Power with an itemized copy of the sales receipt or submit an online application and scanned copy of their receipt via email. If the purchase qualifies, the customer receives an incentive check by mail.

The Home Products Program 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 offered through the retailer markdown model is low-flow showerheads. Low-flow showerheads are part of the Simple Steps, Smart Savings™ markdown promotion administered by the BPA. Simple Steps, Smart Savings is coordinated by CLEAResult.

Idaho Power works in collaboration with NEEA on the Retail Products Platform (RPP). This initiative launched in 2014 and provides a direct incentive to retailers for selling the most energy-efficient products.

2014 Program and Marketing Activities

Through the Home Products Program, Idaho Power paid 3,292 appliance incentives during 2014, resulting in 77,574 kWh annual savings. Ninety percent of incentives were for refrigerators, and 10 percent were for freezers. Additionally, Idaho Power paid incentives on 6,769 showerheads sold under the regional BPA Simple Steps, Smart Savings promotion, resulting in 574,555 annual kWh savings. This promotion uses the same retailer markdown model used in the Energy Efficiency Lighting program.

In 2014, Home Products Program participation decreased by 27 percent compared to 2013 participation. This is due primarily to the inclusion of clothes washers in the program through the first quarter 2013. In 2013, 20 percent of participation was due to incentives paid on 2,624 clothes washers. Idaho Power also found that purchases came from fewer stores in 2014. Some retailers, such as the Pocatello Sears, closed. However, retailers may have become less engaged when clothes washers were removed from the program.

In 2014, incentive processing was brought in-house. This decision was due in part to the removal of clothes washers from the promotion in 2013, resulting in fewer applications.

An option on the application allowed customers to donate their entire incentive to Project Share, an energy assistance partnership between Idaho Power and the Salvation Army. In 2014, Home Products Program participants donated $1,340 to this cause. The Home Products Program sent a Project Share donation thank-you card to customers who donated their incentive.

Idaho Power promoted the program to residential customers via retail store salespeople, a bill insert in July, and the Idaho Power *Connections* newsletter. Idaho Power staff promoted the program directly to customers through community events and other outreach activities. Historically, bill inserts account for about 4 to 5 percent of program enrollments. One bill insert detailing the program was mailed to all residential customers in July 2014. However, a bill insert was also sent in November 2013, which also impacted participation in 2014. As a result, 14 percent of program participants reported hearing about the program from bill inserts in 2014.

Home Products Program marketing efforts included online display ads and visual ads that pop up based on specific search behaviors, such as previous visits to Idaho Power's website or appliance-related searches. The campaign ran from September 25, 2013, through January 7, 2014, and could have influenced 2014 program participation. The campaign resulted in 771,884 impressions and 3,029 clicks for a CTR of 0.39 percent. The industry average for this type of online advertising is 0.07 to 0.10 percent.

In 2014, Idaho Power participated in the NWRRC, facilitated by NEEA, and followed the work by the WRUN. The NWRRC identifies and pursues opportunities that can best be achieved by working collaboratively in the region. WRUN is a network of western utilities, primarily serving California. Both the NWRRC and WRUN seek to develop collaborative approaches to working with manufacturers and retailers to increase the uptake of energy-efficient products in the retail market.

With WRUN, Idaho Power participated in its first upstream appliance promotion with Sears and Samsung, offering an incentive on select Samsung clothes washers. The promotion was coordinated by WRUN. Utilities such as Idaho Power were allowed to opt-in. Under the promotion, Sears and Idaho Power each offered a $50 incentive, giving the customer a $100 discount taken at the point of purchase. Sears provided utility-branded tent cards to display on qualifying units. The promotion ran from

September 12 to 26 at three Idaho Sears stores located in Boise, Twin Falls, and Pocatello. However, the Pocatello Sears store was in the process of closing during the promotion and had no sample stock available on the floor. In total, four qualifying models were sold during the promotion. While this may represent a small number of total units, the promotion allowed Idaho Power to gain valuable experience in upstream appliance promotions, including establishing contracts with a national retailer, managing in-store point-of-purchase materials, and training retail staff.

In 2014, NEEA launched the RPP. The RPP is based on the Consumer Electronics Energy Forward Initiative, which ended in 2013. The RPP uses mid-stream incentives to influence retail stocking practices, ultimately driving manufacturing and standards for a portfolio of energy-efficient products sold through the retail channel. For more information on the initiative, view the *NEEA Residential Activities in Idaho* section of this *Demand-Side Management 2014 Annual Report*.

In 2014, new federal appliance standards for refrigerators and freezers went into effect. As a result, Idaho Power began to explore new cost-effective program delivery options. Two models were explored. The first continued a mail-in incentive program, providing incentives based on a qualified products list using the Consortium for Energy Efficiency product tiers. Idaho Power also proposed an upstream model similar to the Simple Steps, Smart Savings lighting promotion. Upstream promotions can often be delivered at lower administrative costs than mail-in rebate programs.

Both program designs were presented at the EEAG August 19 meeting. After the new efficiency standards were enacted, the RTF published new deemed savings values for refrigerators and freezers. Idaho Power determined the qualified products list approach would not meet its cost-effectiveness thresholds. Idaho Power again met with EEAG November 12 and propose retiring the current measures and moving toward upstream promotions in 2015.

Cost-Effectiveness

Idaho Power used the same cost-effectiveness UES assumptions as were used in 2013 for the refrigerators, freezers, and showerheads.

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 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 will continue to evaluate the cost-effectiveness of these measures under other program delivery methods that may be less expensive than the mail-in incentive model.

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

Customer Satisfaction and Evaluations

Due to program changes in 2014, a planned customer satisfaction survey was re-evaluated. As mentioned above, with the updated savings assumptions for freezers and refrigerators from the RTF and the new 2013 DSM alternative costs from the IRP, freezers and refrigerators were determined not to be cost-effective. The measures will no longer be available to customers beginning January 2015,

and the program will transition away from a mail-in incentive request format. As a result of these changes, a program satisfaction survey was not administered.

Information collected from a question on the incentive application form indicated salespeople are a proven marketing channel. Sixty-three percent of program participants that submitted an incentive application reported hearing about the program from a retail sales person. To support this channel, Idaho Power CRs visited participating retailers multiple times in 2014 to distribute program applications and discuss program requirements. Figure 13 indicates how customers heard about the program in 2014.

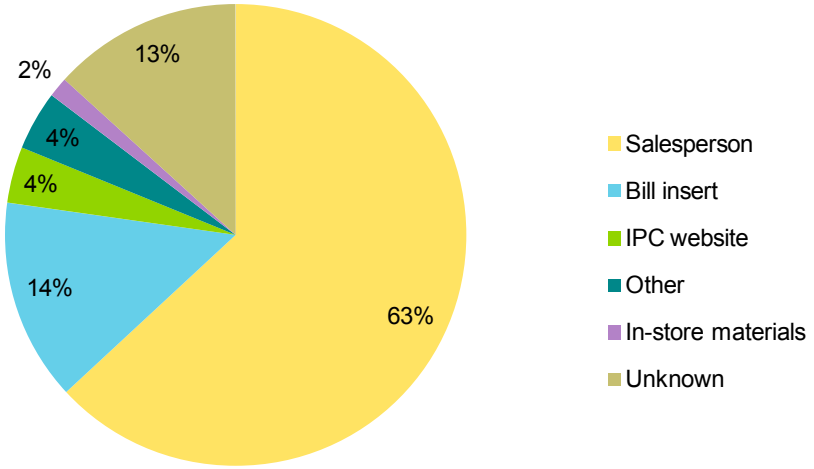

Figure 13. How customers heard about program, 2014

2015 Program and Marketing Strategies

Beginning January 1, 2015, Idaho Power will no longer offer incentives on refrigerators and freezers to its Idaho customers. Incentives will be paid on qualifying appliances purchased on or before Dec. 31, 2014. Beginning January 14, 2015, Idaho Power will no longer offer incentives on refrigerators and freezers to its Oregon customers. Incentives will be paid on qualifying appliances purchased on or before January 13, 2015. Applications must be received within 120 days of purchase.

In December 2014, the BPA announced changes to its Simple Steps, Smart Savings program. The program will continue to be administered by CLEAResult. BPA anticipates that clothes washers, refrigerators, and freezers will be brought into the Simple Steps, Smart Savings program beginning June 2015. Idaho Power expects to have the details of the appliance promotion at the end of first quarter of 2015 and will run the appropriate cost-effectiveness tests. If cost-effective, Idaho Power plans to opt in to the regional appliance promotion.

In 2015, Idaho Power will continue to participate in the NWRRC, follow the work by WRUN, and serve on NEEA's work group.

Oregon Residential Weatherization

	2014	2013
Participation and Savings		
Participants (audits/projects)	13	14
Energy Savings (kWh)	11,032	14,907
Demand Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$0	$0
Oregon Energy Efficiency Rider	$5,234	$8,248
Idaho Power Funds	$228	$768
Total Program Costs—All Sources	$5,462	$9,017
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.028	$0.035
Total Resource Levelized Cost ($/kWh)	$0.050	$0.055
Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	n/a	
Total Resource Benefit/Cost Ratio	n/a	
Program Characteristics		
Program Jurisdiction	Oregon	
Program Inception	1980	

Description

Idaho Power offers free energy audits for electrically heated customer homes within the Oregon service area. This is a statutory program as required by Oregon Revised Statute (ORS) 469.633 offered under Oregon Schedule 78. 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.

2014 Program and Marketing Activities

During May, Idaho Power sent every Oregon residential customer an informational brochure about energy audits and home weatherization financing. Thirteen Oregon customers responded. Each customer returned a card from the brochure indicating interest in a home energy audit, weatherization loan, or incentive payment. Thirteen audits and responses to customer inquiries to the program were completed, with five incentives paid.

Idaho Power issued five incentives totaling $1,614.61 for 11,032 kWh savings. Three incentives and related savings were for ceiling insulation measures. One incentive was for floor insulation, and one incentive was paid for a combination of wall and floor insulation. There were no loans made through this program during 2014.

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.

Thirteen audits were conducted with five savings projects completed. Projects consisted of increasing attic, floor, and wall insulation. The projects combined for an annual energy savings of 11,032 kWh at a levelized TRC per kWh of 4.9 cents over the 30-year attic-insulation measure life as defined by Oregon Schedule 78.

The CEL for insulation (30-year measure life) is $1.30 per annual kWh saved. Since the actual levelized cost of energy savings for the 2014 projects was 4.9 cents from the TRC perspective, these projects are considered cost-effective.

2015 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

	2014	2013
Participation and Savings		
Participants (homes)	44	42
Energy Savings (kWh)	269,643	269,891
Demand Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$57,155	$58,674
Oregon Energy Efficiency Rider	$5,324	$2,097
Idaho Power Funds	$753	$0
Total Program Costs—All Sources	$63,231	$60,770
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.014	$0.014
Total Resource Levelized Cost ($/kWh)	$0.020	$0.021
Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	4.39	
Total Resource Benefit/Cost Ratio	3.23	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2003	

Description

The Rebate Advantage program helps Idaho Power customers 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 quality-control (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 2014 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.

2014 Program and Marketing Activities

During 2014, Idaho Power paid 44 incentives on new manufactured homes, which accounted for 269,643 annual kWh savings. In 2014, all Rebate Advantage collateral was updated, including table-top

posters, brochures, call-out cards for inside model homes, and outdoor vinyl banners. A bill insert, shared with Energy House Calls, was sent to all Idaho and Oregon Customers in September 2014. Idaho Power tested a digital advertising campaign with this target market because according to the *2014 Manufactured Home Market Facts Report* by Foremost®, 79 percent of manufactured home residents use Facebook and 42 percent visit social media multiple times per day. A digital advertising campaign was run from December 15, 2014, to January 15, 2015. Total impressions were 541,400 with 846 clicks for a CTR of 0.16 percent. Generally, in the digital advertising industry, the average CTR is 0.07 percent to 0.10 percent.

Idaho Power continued to support dealerships in 2014 by providing them with Rebate Advantage brochures and applications as needed. CRs visited these dealerships to distribute material, promote the program, and answer salespersons' questions.

Cost-Effectiveness

In 2014, Idaho Power used the same savings and assumptions as were used in 2013. All cost-effectiveness analyses were based on the January 2011 approval decision by the RTF. The measures remained cost-effective for 2014. The measure is currently under review, and the RTF extended the sunset date for the measure until March 2015. For details, see *Supplement 1: Cost-Effectiveness*.

2015 Program and Marketing Strategies

Customers who purchase a new, all-electric, ENERGY STAR qualified manufactured home in 2015 and site it in Idaho Power's service area will continue to be eligible for $1,000. Salespersons will continue to receive a $200 incentive for each qualified home they sell.

In 2015, Idaho Power intends to continue the digital advertising due to a very solid response in 2014. Two informational bill inserts are planned for 2015. The first one will be distributed in February, and the second distributed in the fall. An informational direct-mail letter will be sent to manufactured home dealerships in August. In addition, targeted direct online ads will be placed. Program collateral will be updated throughout 2015 as needed.

See ya later, refrigerator®

	2014	2013
Participation and Savings		
Participants (refrigerators/freezers)	3,194	3,307
Energy Savings (kWh)	1,390,760	1,442,344
Demand Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$562,002	$571,304
Oregon Energy Efficiency Rider	$12,410	$17,750
Idaho Power Funds	$1,639	$0
Total Program Costs—All Sources	$576,051	$589,054
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.062	$0.061
Total Resource Levelized Cost ($/kWh)	$0.062	$0.061
Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	0.86	
Total Resource Benefit/Cost Ratio	0.86	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2009	

Description

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

Idaho Power contracts 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 is 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 meets all program eligibility requirements, including being residential-grade, a minimum of 10 cubic feet (ft^3) as measured using inside dimensions, no larger than 30 ft^3, and in working condition. Customers receive a $30 incentive check mailed after the removal of the unit. The program targets older, extra units for maximum savings.

2014 Program and Marketing Activities

The program reclaimed or recycled up to 95 percent of the components of each unit collected. In 2014, this amounted to more than 435,000 pounds of materials. Reclaimed materials may include oils or refrigerants that can be distilled and reused. See ya later, refrigerator® program participation declined by

3 percent between 2013 and 2014. This represents the natural ebb and flow of programs, demonstrated in Figure 14.

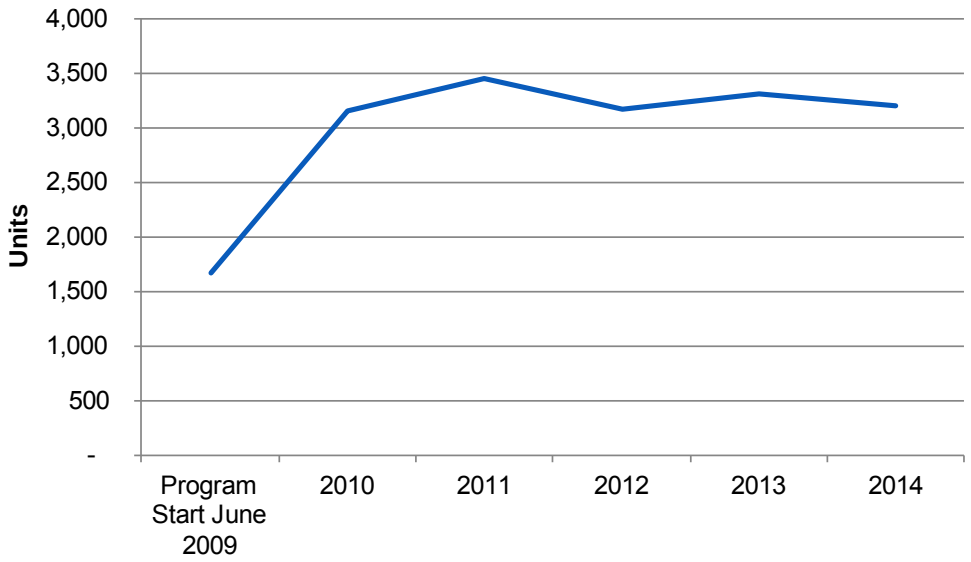

Figure 14. See ya later, refrigerator® participation by year June 2009

Idaho Power continued to offer See ya later, refrigerator® participants the option to receive their $30 incentive or donate it to Project Share. Project Share is an energy assistance program in partnership with the Salvation Army that helps customers who need help paying for energy services, including fuel bills and furnace repairs. In 2014, over 4 percent of Idaho Power's See ya later, refrigerator® participants chose this option, raising $4,230 for Project Share.

Idaho Power used an integrated, layered approach to market the program in 2014. All marketing tactics in 2014 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, newspaper advertising, radio, direct mail, and earned media through two television spots to promote the program.

Bill inserts were sent during February, March, April, June, July, August, and October. In late May, a direct-mail postcard was sent to a highly targeted audience. The target audience for the program has been identified as older, empty-nesters who own their home. The mailing was sent to higher energy users and longer-term customers of Idaho Power that were likely to represent the target audience. The direct-mail had a response rate of approximately 1 percent. Program cards were included in energy-kits given to low-income customers.

Awareness tactics, such as radio and newspaper ads, ran from April through August. Handheld fans with program information were distributed at summer events, including several county fairs. In July, Idaho Power representatives and JACO staff appeared in live television broadcasts in the Twin Falls and Pocatello/Idaho Falls markets promoting the program and demonstrating how materials from refrigerators can be recycled and reused.

RSE managed a nine-month online Google AdWords™ campaign. Google AdWords™ brings up an ad based on specific combinations of search terms. The campaign resulted in 8,497 impressions and a CTR of nearly 6 percent.

Cost-Effectiveness

Idaho Power used the same savings and other cost-effective assumptions for the 2014 reporting year as were used in 2013. However, with the implementation of acknowledged 2013 IRP avoided costs, the program measures for both decommissioning freezers and refrigerators became not cost-effective in 2014 from the UC and TRC perspectives. For details and program assumptions, see *Supplement 1: Cost-Effectiveness*.

Looking forward, the company evaluated different program options to increase the program's cost-effectiveness for 2015. Two options explored included restricting the ages of qualifying units and changing incentive levels. At the August 19 and November 12, 2014, EEAG meetings, Idaho Power discussed proposed program changes for 2015.

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

Customer Satisfaction and Evaluations

No formal evaluations were conducted in 2014 for this program. However, JACO tracks 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 2014 unit data showed that 21 percent of units the program picked up were stand-alone freezers, and 79 percent of the units were refrigerators. Fifty-eight percent of the units were secondary, 29 percent were primary, and 13 percent were unknown. In 2014, 50 percent of the units collected were manufactured from 1965 to 1990, which generally represents the least efficient years of refrigerator manufacturing. By comparison, in 2013, 55 percent of the units were of this vintage.

JACO and Idaho Power also track data related to the marketing effectiveness of the program. Results of customer tracking information indicate 49 percent of customers learned of the program through bill inserts. Nineteen 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 percent of customers who enrolled used the toll-free telephone number, and 30 percent used the online enrollment form. Idaho Power uses the customer information JACO collects and the surveys from Idaho Power evaluations to target future marketing efforts and increase the effectiveness of marketing.

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.

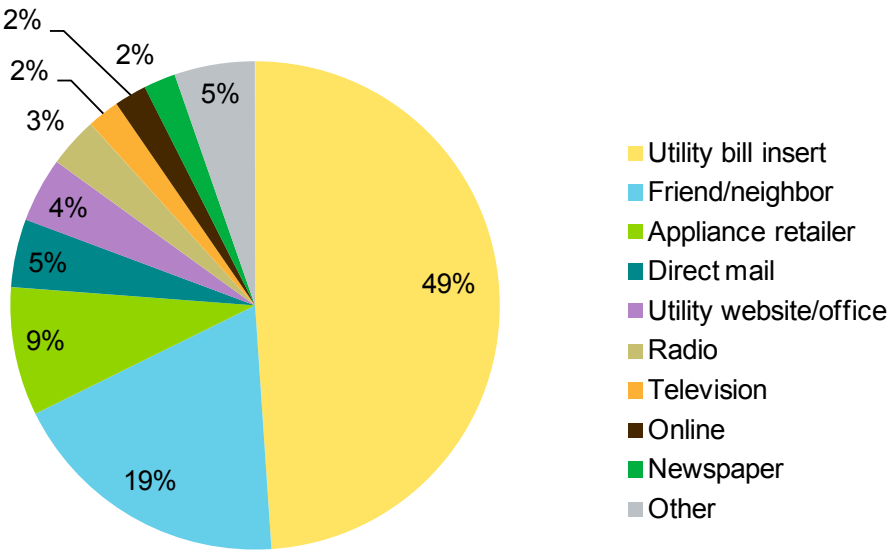

Figure 15. How customers heard about See ya later, refrigerator®

2015 Program and Marketing Strategies

Idaho Power will contract with JACO to provide services in 2015. To increase program cost-effectiveness, starting February 1, Idaho Power will no longer offer participants a $30 incentive for participating.

Marketing tactics in 2015 will include six bill inserts. The truck that picks up the refrigerators will continue to display a truck wrap—a large Idaho Power See ya later, refrigerator® ad—on its side. The truck wrap will be redesigned in January. This low-cost marketing tactic is expected to account for about 1 percent of program participation. Program information will continue to be included in over 2,000 energy kits distributed to low-income customers. The program will be promoted at community events and by Idaho Power's CRs. Idaho Power will also focus on online marketing tactics, including promotional advertising on Idaho Power's website, Facebook postings, and Google AdWords.

Shade Tree Project

	2014	2013
Participation and Savings		
Participants (homes)	2,041	220
Energy Savings (kWh)	n/a	n/a
Demand Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$143,750	n/a
Oregon Energy Efficiency Rider	$66	n/a
Idaho Power Funds	$3,474	n/a
Total Program Costs—All Sources	$147,290	n/a
Program Levelized Costs		
Utility Levelized Cost ($/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	
Program Characteristics		
Program Jurisdiction	Idaho	
Program Inception	2013	

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 and pick up their tree at specific events. In the fall 2013 pilot, 220 trees were distributed to residential customers.

In 2014, the Shade Tree Project expanded. Idaho Power distributed 2,041 shade trees to residential customers.

2014 Program and Marketing Activities

The best time to plant shade trees is in the spring and fall. Therefore, Idaho Power held two offerings in 2014. The spring shade tree offering was held in April 2014 and resulted in 1,058 trees distributed. The fall offering was held in October, and 983 trees were distributed.

Trees were purchased from regional growers in advance of each event. Species offered depended on availability at time of purchase. 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 counties.

Idaho Power used direct mail to market this program in 2014 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 tree can be planted and if that tree can be a large-growing shade tree. 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.

To enroll, customers accessed an online Energy Saving Trees Tool developed by the Arbor Day Foundation. Using this tool, participants mapped their home, selected from a list of available trees, and evaluated the potential energy savings associated with planting in different locations. During enrollment, participants learned how trees planted to the west and east save more energy over time than trees planted to the south and north. In 2014, customers could reserve up to two trees.

Participants picked up their tree at prescheduled events held throughout the Treasure Valley. Four pickup events were held in the spring and three in the fall, conducted on different days at different locations. By offering several pickup days, locations, and times, about 90 percent of participants enrolled and picked up their tree.

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.

Customer Satisfaction and Evaluations

In early 2014, a survey was emailed to 205 customers that participated in the first Shade Tree Project offering in fall 2013. The response rate was just over 63 percent with 130 respondents. Survey participants were asked, “How likely would you be to recommend Idaho Power’s Shade Tree Project to a friend or relative?” Just over 89 percent indicated they “definitely would” and just over 10 percent indicated they “probably would.” After reviewing these survey results, the survey was revised to remove questions with little value and to capture additional information from participants. The revised survey was sent in summer 2014 to 577 customers that participated in the spring 2014 offering. The response rate was nearly 61 percent with 351 respondents. When asked how much they would agree or disagree with statements about the Shade Tree Project, just over 95 percent of respondents “strongly agreed” and just over 4 percent “somewhat agreed” they would recommend the project to a friend or family. Nearly 93 percent indicated they “strongly agreed” and just over 6 percent “somewhat agreed” they were satisfied with their overall experience with the Shade Tree Project.

In 2014, the Customer Research and Analysis team administered a process evaluation contracting with Johnson Consulting Group for analysis. The findings from the process evaluation were, overall, the Shade Tree Project is well designed and well managed. Key findings and recommendations from the evaluation, along with Idaho Power’s responses, are described below.

The evaluators found Idaho Power successfully leveraged industry best practices to design and develop the Shade Tree Project. Program design was developed by combining internal resources from a diverse group of Idaho Power staff with input from critical external stakeholders involved in urban forestry projects throughout the region.

Evaluators indicated Idaho Power staff are responsive and flexible and have adapted this project based on both experience and customer feedback. The staff continues to refine the program delivery model, increasing the number of trees offered to customers and improving the program marketing and educational materials. In addition, the Shade Tree Project delivery strategy is consistent with the industry best practices for shade tree programs.

Johnson Consulting Group determined the online program enrollment was quick and easy. Citing Idaho Power's survey of program participants, nearly two-thirds, 60 percent, of the survey respondents were able to enroll in the program in ten minutes or less. Nearly three quarters, 72 percent, of survey respondents found the online enrollment tool very easy to use. Overall, the participants reported high satisfaction rates for the Shade Tree Project and were very satisfied with both the planting care and education they received at the distribution events.

Johnson Consulting Group noted a few respondents were dissatisfied with the quality of the trees provided. Upon further review, Idaho Power found that the comments around quality of tree related to the size of the tree. Trees came in 3- to 5-gallon containers and ranged in size from approximately 4 to 10 feet. The trees were sized so participants could safely transport and plant the trees. To address this concern, information on tree size was added to the direct-mail letter and main program landing webpage to help set participant expectations.

Based on the process evaluation findings, the Johnson Consulting Group evaluation team developed the following recommendations to improve program operations.

They recommended Idaho Power staff should standardize the current program evaluation questionnaires to allow for consistent feedback and tracking across all program events. This includes asking questions to all customers to assess satisfaction, determining the actual planting locations for all trees provided, and exploring more fully the reasons for participation.

Idaho Power agrees with this recommendation and plans to use a consistent survey starting in 2015. The company ran a small Shade Tree pilot in 2013 and issued a survey to all participants. After that survey, some small modifications were made to the survey questions with the intent of clarifying questions to obtain better data and seeking new information that would be relevant to a larger program design. Idaho Power will issue a third survey in early 2015 to capture participant feedback from the fall 2014 offering and will again refine a few questions based on specific feedback from Johnson Consulting Group. Specifically, the survey was designed in 2013 around one tree per participant. In 2014, the program was expanded to allow two trees per participant. Survey questions were adjusted for this program change. The company does not anticipate any future survey modifications but will maintain the flexibility to ensure the survey captures the data needed to manage and improve the program.

Johnson Consulting Group recommended Idaho Power staff develop a pre-screening tool to maximize energy savings potential at the initial application stage. The evaluator stated given both the survey responses and the experience with other shade tree programs, Idaho Power staff should try to maximize energy savings at the initial screening by incorporating the strategies used by other shade tree programs, such as pre-screening for customers who do not intend to plant trees with western, northwestern,

or southwestern orientation. The evaluator suggested Idaho Power staff should also assess actual free ridership rates through customer surveys in future program evaluations.

While Idaho Power agrees it is important to maximize energy savings and has taken several steps throughout the program design to do so, the company looked at other shade tree programs and has not yet found a pre-screening solution that would result in west planting locations that does not increase the cost of the project. Programs that require specific planting locations conduct one or more site visits to each participant's home and/or plant the tree for customers. For example, the Sacramento Municipal Utility District's program conducts up to three site visits—one to determine proper placement; one to deliver trees; and, for some customers, a third visit to verify planting.

Idaho Power also has concerns that a screening question at the time of enrollment alone may not lead to the desired results. Without site verification at the time of tree delivery and planting, it would be difficult to verify customers would answer a screening question truthfully.

Idaho Power uses many methods to encourage customers to plant in the most optimum location for energy efficiency. First, the program is marketed to those customers identified using the urban tree canopy assessment as having a western planting location. Messaging throughout the program includes the phrase *West is Best*. The enrollment tool uses community-based social marketing techniques, including interactive feedback, commitments, and prompts to promote western planting locations.

Second, although western planting locations result in maximum energy savings, significant savings can occur to the east and some, albeit less, savings can be achieved planting to the south and north. Idaho Power will continue to look for opportunities to maximize energy savings and promote plantings to the west of the home. The company will continue to monitor other shade tree programs and delivery models for best practices to minimize free ridership and maximize energy savings.

Johnson Consulting Group recommended Idaho Power staff should implement a QA/QC process to provide ongoing tracking of the distributed trees and that this QA/QC process should include follow up with all program participants via a customer survey and a sample of on-site visits to verify planting orientation and tree health. The evaluator noted the QA/QC process can also help to provide more accurate estimates of actual tree planting locations and therefore provide a more accurate estimate of overall program effectiveness.

Idaho Power agrees with this recommendation and currently has QA/QC procedures in place. The company follows up with all participants through an online survey after the each offering. In 2015, Idaho Power plans to conduct site visits to a subset of participant homes to measure tree planting location, planting quality, and tree health.

Two of the evaluators' recommendations regarded data collection. First, according to Johnson Consulting Group, the Shade Tree Project should develop a standard database that consistently tracks the disposition of trees and key program metrics in a standard manner. The evaluator stated that as this program evolves from a pilot to a full-scale program, it is critical to develop a standardized program tracking tool that tracks key program milestones, customer feedback, and electric and non-electric savings and allows easy comparison between offerings.

Second, Johnson Consulting Group also recommended Idaho Power staff should try to quantify the non-electric benefits associated with this program as a way to enhance its overall cost-effectiveness. The evaluator noted the technical assessments included detailed models demonstrating the significant non-electric benefits that shade tree programs provide and Idaho Power staff should leverage this

information and include the quantification of program non-electric benefits attributed to this project, including reductions in carbon emissions, carbon sequestration, and other benefits quantified in the US Forest Service (USFS) i-Tree™ model.

In regard to these two recommendations, Idaho Power continues to build upon prior work to move toward the evaluators' recommendation around data in the following manner. Idaho Power has captured program metrics for each offering, including customer data, tree type, tree planting location, marketing tactics, event pickup location, and enrollment date, as well as 20-year energy benefits (as determined by the model). In 2014, Idaho Power worked with the Arbor Day Foundation to create additional reports for each offering to track energy savings and environmental benefits. The Arbor Day tool is based on the i-Tree model, in which benefits for each tree distributed are calculated based on species and planting location. Benefits are forecasted for years 5, 10, 15, and 20. Environmental benefits include carbon benefits per pound, storm water runoff mitigated per gallon, and air pollutants per pound. Once these reports were finalized in fall 2014, Idaho Power merged the data with the other program metrics to create a central tracking system. In 2015, Idaho Power will create a data dictionary—describing each term and field used—for this database and will continue to add results from each offering going forward.

2015 Program and Marketing Strategies

Idaho Power plans to continue the Shade Tree Project in 2015, using the Arbor Day enrollment tool and events to distribute the trees. Idaho Power will continue to market the program by direct mail and focus 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 fall offering before it subscribed. Idaho Power will reach out to these customers through direct mail or email. Should enrollment response rates not be as successful as past years, Idaho Power will consider targeted advertising on Facebook.

This project relies on strong partnerships with the cities, counties, CWI, and others. These groups provide guidance on tree selection and donate volunteer hours. Together, Idaho Power, local arborists and others interested in green infrastructure have formed the Treasure Valley Canopy Network (Network) to enhance the region's urban forest. The Network, through the Southwest Resource Conservation and Development and Idaho State Department of Lands, received a Western Competitive States Grant through the USFS. The grant proposal was the top ranked proposal submitted. Grant funds will be used to support urban tree planting for energy savings, develop local resources for tree procurement and storage, and develop additional educational materials. In 2015, the grant funds will offset some Idaho Power costs and allow Idaho Power to explore ways to procure trees locally at a lower cost. It will also be used to sustain the partnerships needed for this project.

Idaho Power will continue to collect metrics to evaluate program success and effectiveness. A survey will be sent in early 2015 to the fall 2014 participants. A survey will be sent to participants in the spring and fall 2015 offerings. In summer 2015, Idaho Power will conduct site visits to a statistically valid sample of past participant homes to confirm planting location and evaluate tree planting quality and tree health. This data will help inform assumptions used to evaluate energy savings from this program. Idaho Power is collecting data to evaluate energy savings from this project. With the available costs and savings assumptions, shade trees were added as a measure in the 2014 potential study that was prepared for the 2015 IRP. Based on currently planned tree distributions, it was estimated that just over 5 million kWh could be saved over 20 years.

Weatherization Assistance for Qualified Customers

	2014	2013
Participation and Savings		
Participants (homes/non-profits)	255	254
Energy Savings (kWh)	533,800	681,736
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	$1,320,112	$1,391,677
Total Program Costs—All Sources	$1,320,112	$1,391,677
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.149	$0.125
Total Resource Levelized Cost ($/kWh)	$0.225	$0.184
Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	0.51	
Total Resource Benefit/Cost Ratio	0.42	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	1989	

Description

The WAQC program provides funding to install weatherization measures in qualified, owner-occupied and rental homes that are electrically heated. In 2014, qualified households included those 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.

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 Low Income Home Energy Assistance Program (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 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 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 2013 Annual Report*, dated April 1, 2014, located in *Supplement 2: Evaluation*. The new *Weatherization Assistance for Qualified Customers 2014 Annual Report* will be filed on April 1, 2015.

2014 Program and Marketing Activities

During 2014, CAP agencies weatherized 239 electrically heated homes in Idaho and 11 in Oregon, totaling 250 weatherized homes. Five Idaho buildings housing non-profit organizations that serve special-needs populations were also weatherized in 2014.

Idaho Power continued the focus on addressing recommendations from a 2012 impact evaluation conducted by D&R International and a 2013 process evaluation conducted by Johnson Consulting. A contract was signed with Kearns ENTerprises™ to develop a Home Audit tool to be used in Idaho Power's Weatherization Solutions for Eligible Customers program starting in 2015. The updated tool was designed to capture key data and more details regarding measures installed for health and safety. Updated calculations for estimates of energy savings and measure information to more accurately report program effectiveness were built into the program. The new WxSol Home Audit Tool (HAT 14.1) was distributed in January 2015 to contractors participating in the Weatherization Solutions for Eligible Customers program and will be tested throughout 2015 in that program. The WAQC program will use the tool if the state adopts it.

In January 2014, in Oregon, Idaho Power moved funds from the non-profit pooled fund to the fund used to weatherize homes of electrically-heated qualified customers. This funding shift allowed additional funds to be spent on home efficiency improvements of qualified customers in Oregon.

Idaho Power marketed WAQC throughout 2014 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. Working with the CCOA—Aging, Weatherization and Human Services (CCOA), a Weiser project was identified to be featured in an internal *eNews* video. Once produced, it was released on YouTube and promoted through social media in October.

Cost-Effectiveness

The WAQC program has been proven to provide real and substantial per-home savings, but due to the costs of comprehensive whole-house weatherization, the program remains not cost-effective from either a UC or TRC perspective. In 2014, additional billing analysis was conducted on 2012 participants' billing data. This analysis was based on a recommendation from the 2012 impact evaluation conducted by D&R International. The evaluation recommended using a control group to account for non-weather related changes in energy use not attributable to the program's weatherization measures. The 2012 impact evaluation performed a billing analysis on 2011 projects. The average realized annual savings in all housing types was 2,684 kWh per home. For the update billing analysis, Idaho Power wanted to know if savings could be further differentiated between housing stock (single family versus manufactured home), occupant size, heating footprint of the home, and the number of occupants in the home. All billing analysis and data preparation was done in accordance with the *Whole-building Retrofit with Consumption Data Analysis Evaluation Protocol* document published in April 2013 by the DOE (energy.gov/eere/about-us/ump-protocols).

Analysis results showed that manufactured home savings per home were similar to the previous 2012 evaluation results at 2,568 kWh per year. Single-family homes, when analyzed independently from manufactured homes, revealed fewer savings than the 2012 evaluation results at 1,551 kWh per year per home. The effects of further segregating savings analyses by the heating footprint of the home, number of occupants, and climate was shown not to be statistically significant. Idaho Power plans to continue to monitor savings from this program through further billing analyses. Additionally, the RTF contract staff is analyzing manufactured home audit data from 2011 to 2012 that will provide useful insights into how to potentially incorporate the measure-level audit data into future billing analyses.

To analyze program cost-effectiveness, the recommendations from IPUC staff's report and IPUC Order No. 32788 are used for cost-effectiveness analysis for 2014. For further details on the 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 43 homes for feedback about the program. When customers were asked how much they learned about saving electricity, 32, or over 74 percent, answered they learned "a lot" or "some." When asked about how many ways they tried to save electricity, 34, or approximately 79 percent, responded "a lot" or "some."

As recommended by Johnson Consulting Group in a 2013 process evaluation, a new customer survey was developed to assess major indicators of customer satisfaction and program operations consistently throughout the service area. The 2014 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 237 of the 250 households weatherized by the program in 2014. Of the 237 surveys received back from customers, 228 were from Idaho customers and 9 were from Oregon customers. Some key highlights include the following:

- Over 47 percent of respondents learned of the program from a friend or relative, and another almost 15 percent learned of the program from an agency flyer. Nearly 6 percent learned about the weatherization program by receiving a letter in the mail.
- Almost 90 percent of the respondents reported their primary reason for participating in the weatherization program was to reduce utility bills, and over 45 percent wanted to improve the comfort of their home.
- Almost 74 percent reported they learned how air leaks affect energy usage, and just over 65 percent indicated they learned how insulation affects energy usage during the weatherization process. Another almost 57 percent of respondents said they learned how to use energy wisely.
- Over 79 percent reported they were very likely to change habits to save energy, and almost 80 percent reported they have shared all the information about energy use with members of their household.
- Over 86 percent of the respondents reported they think the weatherization they received will significantly affect the comfort of their home, and nearly 94 percent said they were very satisfied with the program.
- Over 86 percent of the respondents reported that the habit they were most likely to change was turning off lights when not in use, and over 61 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 nearly 51 percent, and turning the thermostat down in the winter was reported by almost 58 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 state monitoring process, which involves representatives from the CAP agencies, Community Action Partnership Association of Idaho, Inc. (CAPAI), and IDHW 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.

2015 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 2015 will remain the same as 2014.

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 2015. 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

	2014	2013
Participation and Savings		
Participants (homes)	118	166
Energy Savings (kWh)	290,926	303,116
Demand Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$757,748	$1,239,132
Oregon Energy Efficiency Rider	$0	$0
Idaho Power Funds	$33,596	$28,659
Total Program Costs—All Sources	$791,344	$1,267,791
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.163	$0.256
Total Resource Levelized Cost ($/kWh)	$0.163	$0.256
Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	0.46	
Total Resource Benefit/Cost Ratio	0.50	
Program Characteristics		
Program Jurisdiction	Idaho	
Program Inception	2008	

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. 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 the home is 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.

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 expendable income to participate in other residential energy efficiency programs, and they live in similar housing as WAQC customers.

2014 Program and Marketing Activities

The program served customers in Idaho Power's service area in Idaho, including Canyon, Southern, and Capital regions, as well as most of the Eastern region. In 2014, the program participation decreased from 166 in 2013 to 118 in 2014. This was due to some challenges in finding income-eligible customers in portions of Idaho Power's service area. Income guidelines overlap between the Weatherization Solutions

for Eligible Customers program and WAQC, therefore some of those eligible customers were served by WAQC. Additionally, reliance on word-of-mouth communication between prior customers and potential customers, which was a helpful method in the past, was less effective in 2014. Future marketing activities will be increased by Idaho Power and weatherization managers to locate more customers eligible to participate in the Weatherization Solutions for Eligible Customers program.

Table 10 shows the number of jobs and costs associated with measures installed in homes (production costs). Also shown are job average costs and total payments to contractors for the year.

Table 10. 2014 weatherization solutions financial breakdown

Contractor	Number of Jobs	Production Costs	Average Job Cost	Administrative Payment to Contractor	Total Payment
Energy Zone	55	$ 317,757	$ 5,777	$ 31,776	$ 349,533
Home Energy Management	35	185,276	5,294	18,528	203,803
Power Savers	23	130,176	5,660	13,018	143,194
Savings Around Power	5	28,994	5,799	2,899	31,894
Total	**118**	**$ 662,204**	**$ 5,612**	**$ 66,220**	**$ 728,424**

Note: Average Job Cost calculations based on the direct cost of installed measures without the administrative payment.

In response to the 2012 impact evaluation and the 2013 process evaluation, Idaho Power contracted with an outside programmer to complete a new home audit tool for use in the program. Throughout 2014, Idaho Power staff worked with Kearns ENTerprises™ to incorporate the evaluation recommendations into an audit tool for use in 2015. In January 2015, the new tool, WxSol Home Audit Tool (HAT 14.1), was distributed to the four program contractors for use in 2015.

Updates in the audit tool include more specific housing types, the most current measure life of individual measures, and an updated chart of heating degree days. LED lighting was added to the CFL measure to incorporate new bulbs and associated savings. A health and safety menu was included to better capture non-energy saving upgrades necessary to the weatherization process and to further research and quantify NEBs of the program. A percentage limit was programmed for contractor support costs on each measure, and a 10-percent funding participation mandate was added for landlords when a home is not owner occupied. The refrigerator replacement measure was updated to reflect more accurate savings.

In 2014, Idaho Power contracted with the University of Idaho IDL to develop a Weatherization HVAC Replacement Savings Calculator that is interactive with each measure upgraded in a home that receives a new HVAC system. This tool is expected to be completed in early 2015, and Idaho Power will use it to compare savings reported by the new WxSol Home Audit Tool (HAT 14.1) in anticipation of improving the accuracy of savings being reported by the program.

Marketing approaches in 2014 included a newsletter, bill inserts, and ads. For example, an energy efficiency edition of the *Connections* customer newsletter was in the February bill; a bill insert was added in April and September mailings, an ad ran in *Idaho Senior News*, and a three-day ad ran in the *Idaho State Journal*.

Contractor personnel left flyers with previous participants to spread information about the program to families and friends who might be eligible. Word-of-mouth continued to be a helpful marketing tool for the program in 2014. Several articles about the program were featured in various local publications. The program was promoted at Idaho Power and CAP agency outreach booths and resource fairs.

One of the target customer groups for Idaho Power's Weatherization Solutions program is seniors. To more directly focus on this customer group, information about the program was emailed to a number of resources used by seniors. This resulted in an assisted living provider with facilities throughout southern Idaho supplying program information in their monthly newsletter to residents, families, business partners, and healthcare providers. A health/hospice program included Idaho Power program information in their newsletter emailed to professionals/resources that work with senior citizens. Idaho Power placed print ads in the *Idaho State Journal* in October to promote program participation in eastern Idaho.

Cost-Effectiveness

The billing analysis conducted in 2014 by Idaho Power on 2012 projects showed higher savings over the results published in the 2012 impact evaluation conducted by D&R International. However, due to the costs of comprehensive whole-house weatherization, the program remains not cost-effective from either a UC or TRC perspective. In 2014, Idaho Power conducted an additional billing analysis on 2012 participants. The company applied the recommendation from the 2012 impact evaluation by using a control group to account for non-weather related changes in energy use not attributable to the program's weatherization measures. The 2012 impact evaluation performed a billing analysis on 2011 projects. The average realized annual savings in all housing types was 1,826 kWh per home. For the update billing analysis, Idaho Power wanted to know if savings could be further differentiated between housing stock (single family versus manufactured home), occupant size, heating footprint of the home, and the number of occupants in the home. All billing analysis and data preparation was done in accordance with the *Whole-building Retrofit with Consumption Data Analysis Evaluation Protocol* document published in April 2013 by the DOE (energy.gov/eere/about-us/ump-protocols).

Analysis results showed that manufactured homes savings per home exceeded the previous 2012 evaluation results at 3,426 kWh per year. Single-family homes, when analyzed independently from manufactured homes, revealed higher savings than the 2012 evaluation results at 2,108 kWh per year per home. The effects of further segregating savings analyses by heating footprint of the home, number of occupants, and climate was shown not to be statistically significant.

To analyze program cost-effectiveness, the recommendations from IPUC staff's report and IPUC Order No. 32788 are used for cost-effectiveness analyses for 2014. For further details on the cost-effectiveness assumptions, see *Supplement 1: Cost-Effectiveness*.

Customer Satisfaction and Evaluations

Two independent companies continued to perform random verifications of weatherized homes and visit with customers about the program. In 2014, 28 homes were verified, and 21, or 75 percent, of those customers reported they learned "a lot" or "some" about using energy wisely in their home. Twenty-six, or 93 percent, reported they had tried "a lot" or "some" ways to save energy in their home.

As recommended by Johnson Consulting Group in the 2013 process evaluation, a new customer survey was developed to consistently assess major indicators of customers' satisfaction and program operations throughout the service area. The 2014 Weatherization Programs Customer Survey was provided to all program participants in all regions 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 115 of the 118 households weatherized by the program in 2014. Some key highlights include the following:

- Almost 34 percent of respondents learned of the program through a letter in the mail and another almost 26 percent learned of the program from a friend or relative.
- Over 84 percent of the respondents reported their primary reason for participating in the weatherization program was to reduce utility bills.
- Just over 70 percent indicated they learned how insulation affects energy usage during the weatherization process, and 68 percent reported they learned how air leaks affect energy usage. Another almost 61 percent of respondents said they learned how to use energy wisely.
- Over 68 percent reported they were very likely to change habits to save energy, and almost 65 percent reported they have shared all of the information about energy use with members of their household.
- Almost 89 percent of the respondents reported they think the weatherization they received will significantly affect the comfort of their home, and nearly 96 percent said they were very satisfied with the program.

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

2015 Program and Marketing Strategies

Contractors will use the new WxSol Home Audit Tool (HAT 14.1) throughout 2015.
The Weatherization HVAC Replacement Savings Calculator developed by the IDL will be used to compare energy savings of the WxSol Home Audit Tool (HAT 14.1) when an HVAC system is upgraded in a home. As recommended in former program evaluations, the new calculator will provide more accurate savings estimates for the program.

In 2015, marketing plans include emails, ads, bill inserts, and distribution of the program brochures. Targeting various customer segments with bill insert and direct mailings has been helpful in the past in increasing program participation and will be used in 2015. A printed bill message is scheduled for May, and bill inserts will go out in February and again in the fall. Webpages for the Weatherization Solutions for Eligible Customers program will be refreshed during the coming year.

Idaho Power will create a program brochure and provide it to contractors for use in their individual regional marketing campaigns. Idaho Power will mail a letter to customers in April, July, and September whose energy consumption indicates electrically heated homes. The program will be promoted at senior centers and resource and energy fairs throughout the year, and a redesign of the energy efficiency pages of the Idaho Power website is scheduled.

Publications dedicated and directed to senior readers that have not been used in the past will be used in 2015. *Senior Goldmine* is a monthly publication delivered to 10 senior centers and over 100 other locations in the Treasure Valley. It is also hand-delivered to over 700 Meals-on-Wheels recipients.
The company will also advertise in the *Senior Blue Book*, a semi-annual resource directory mailed to over 28,000 seniors and healthcare professionals. In 2015, February, May, August, and November ads in the *Idaho Senior News* are scheduled. This publication focuses on a demographic of senior readers ages 50 and older with a readership of over 80,000 statewide.

COMMERCIAL/INDUSTRIAL SECTOR OVERVIEW

Description

Idaho Power's commercial sector consists of over 67,522 customers. In 2014, the commercial sector's number of customers increased by 788, an increase of a little over 1 percent from 2013. The energy usage of commercial customers varies from a few kWh each month to several hundred thousand kWh per month. The commercial sector represents 30 percent of Idaho Power's total electricity usage in 2014.

The industrial and Special Contracts customers are Idaho Power's largest individual energy consumers. There are approximately 116 industrial customers. These customers can use millions of kWh a month and account for 17.9 percent of Idaho Power's total electricity usage in 2014.

Three major programs targeting different energy efficiency projects are available to commercial/industrial customers in the company's Idaho and Oregon service areas. Easy Upgrades offers a menu of typical retrofit measures with prescriptive incentive amounts for lighting, HVAC, building shells, variable-speed/frequency drives (VFD), plug loads, and food-service equipment. These energy-saving measures give customers the option of choosing the best selections for incorporating energy efficiency into their business. The Custom Efficiency program offers financial incentives for large 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. During 2014, Idaho Power combined how the Easy Upgrades and Custom Efficiency programs treat lighting projects so they are processed together and the incentives and criteria are the same. 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, and energy-management control options.

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

In 2014, FlexPeak Management, a demand response program, was offered to Idaho and Oregon commercial and industrial customers. Idaho Power contracted with EnerNOC, Inc., a third-party aggregator, to reduce peak demand at critical times. EnerNOC, in turn, contracted directly with Idaho Power's commercial and industrial customers to achieve demand reduction. For 2015, Idaho Power has proposed to internally run and manage the program.

The Custom Efficiency program continued to represent the highest total energy savings among commercial and industrial programs in 2014, with a total savings of 50,363 MWh. The Easy Upgrades program continued to lead the sector in projects completed with 1,095 projects. Combined, all programs completed 1,295 projects that achieved 78,940 MWh of energy savings. Table 11 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 11. 2014 commercial/industrial program

Program	Participants	Total Cost		Savings	
		Utility	Resource	Energy (kWh)	Demand (MW)
Demand Response					
FlexPeak Management	93 sites	$ 1,563,211	$ 1,563,211	n/a	40
Total		**$ 1,563,211**	**$ 1,563,211**		**40**
Energy Efficiency					
Building Efficiency	69 projects	1,258,273	3,972,822	9,458,059	1.2
Easy Upgrades	1,095 projects	3,150,942	5,453,380	19,118,494	
Custom Efficiency	131 projects	7,173,054	13,409,922	50,363,052	5.6
Total		**$ 11,582,269**	**$ 22,836,124**	**78,939,605**	**6.8**

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

Although 2014 was a good year for Idaho Power's commercial and industrial energy efficiency programs, Idaho Power program managers recognized early in 2014 that some changes needed made to the programs. The company took action by increasing incentives to most measures in all three programs, removing non-cost effective measures, modifying how lighting retrofit projects were processed, adding trade ally outreach for lighting, and offering a cohort to wastewater treatment plants.
The commercial and industrial 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 IBOA, and most importantly, Idaho Power customers. Training and education continued to be an important aspect of the company's programs in 2014. Trade ally meetings included training on lighting design and lighting controls. These training classes qualified for continuing education credits for eligible, licensed trade allies. Building Efficiency sponsored a number of outreach training sessions conducted by the IDL. Last, Custom Efficiency continued to offer a host of industrial training sessions that were well attended.

The Green Rewind offering is available to Idaho Power's agricultural, commercial, and industrial customers. The sectors' combined 29 Green Rewind motors achieved a total annual savings of 91,582 kWh in 2014, with 14 commercial/industrial sector motors contributing 56,499 kWh per year and 15 irrigation sector motors contributing 35,083 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, four 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.

Idaho Power continued research on the potential to expand incentives in the Building Efficiency program in 2014 for multi-family dwellings in new construction and major remodel projects. In 2013, it was determined that most multifamily construction uses natural gas as a heat source, resulting in minimal electricity savings based on cooling measures alone. Because of this, multi-family projects do not pass Idaho Power's cost-effectiveness tests.

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 percent of Idaho Power's large commercial and industrial customers surveyed in 2014 for the Burke Customer Relationship survey indicated 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. Seventy-three percent of respondents indicated Idaho Power was meeting or exceeding their needs by encouraging energy efficiency with its customers. Overall, 77 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, 94 percent are "very" or "somewhat" satisfied with the program.

The results from surveying Idaho Power's small business customers indicated 52 percent of these customers said Idaho Power was meeting or exceeding their needs in offering energy efficiency programs. Fifty-one percent of survey respondents indicated Idaho Power was meeting or exceeding their needs with information on how to use energy wisely and efficiently. Sixty percent of respondents indicated Idaho Power was meeting or exceeding their needs with encouraging energy efficiency with its customers. Overall, 22 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, 82 percent are "very" or "somewhat" satisfied with the program.

Customers' familiarity with Idaho Power's business energy efficiency programs meets or exceeds the average of its peer utilities according to the J. D. Power and Associates Electric Utility Business Customer Satisfaction Study. Idaho Power has exceeded the average of its peer utilities every year in the last four years with its awareness of business programs.

Building Efficiency

	2014	2013
Participation and Savings		
Participants (projects)	69	59
Energy Savings (kWh)	9,458,059	10,988,934
Demand Reduction (MW)	1.2	1.1
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$1,212,907	$1,489,195
Oregon Energy Efficiency Rider	$31,052	$17,839
Idaho Power Funds	$14,315	$0
Total Program Costs—All Sources	$1,258,273	$1,507,035
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.012	$0.012
Total Resource Levelized Cost ($/kWh)	$0.037	$0.032
Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	5.05	
Total Resource Benefit/Cost Ratio	2.08	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2004	

Description

The Building Efficiency program enables customers in Idaho Power's service area to apply energy-efficient design features and technologies in new commercial or industrial construction, expansion, or major remodeling projects. The program 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 AC and heat pump units, efficient variable refrigerant flow (VRF) 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*.

2014 Program and Marketing Activities

The Building Efficiency program completed 69 projects, resulting in 9,458,059 kWh in annual energy savings in Idaho and Oregon. Although the program showed a slight decrease in total kWh savings from 2013, the program increased the total number of projects by 17 percent from 59 projects in 2013. New construction and major renovation project design and construction life is much longer than small retrofits and often encompasses multiple calendar years.

The Building Efficiency program was modified in 2014, adding six new incentive measures. Idaho Power contracted with ADM to provide a technical reference manual (TRM) to address recommendations provided in the ADM impact evaluation in 2012. The TRM was completed in 2014 and provided updated savings for existing measures and savings for new measures that were added to the program.

Research conducted at the end of 2012 revealed that one barrier to participation is the amount of uncompensated time it took to fill out and submit supporting project documentation. Idaho Power addressed this barrier in 2014 by adding 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. Modifications to the program were posted on Idaho Power's website, in the fall edition of the *ENERGY@WORK* commercial newsletter, and in a letter mailed directly to engineers and architects throughout Idaho Power's service area. Idaho Power worked with the American Institute of Architects—Idaho Chapter to have the program revisions posted to their website at aiaidaho.com/.

Idaho Power marketing and program staff participated in bi-monthly conference calls in support of the Kilowatt Crackdown™ competition. A video highlighting positive participant experiences was produced by the company and shown at the 2014 BOMA Symposium. In addition to the video, Idaho Power was a symposium sponsor and as such, had a full-page ad in the program magazine. The Kilowatt Crackdown™ Awards luncheon held April 16 recognized the top three highest-performing buildings, the top three most improved buildings, and two special recognition rewards. Idaho Power issued a news release that day to recognize the winners and encourage additional coverage of the competition. Idaho Power scheduled two additional training sessions with BOMA members in 2014.

Building Efficiency was marketed as a single program and as part of Idaho Power's suite of commercial energy efficiency programs. Ads that include all of Idaho Power commercial programs appeared in association directories, *Horizon Air* magazine, Boise Metro Chamber of Commerce monthly magazine, the *Business Insider*, the *Idaho Business Review*, and bill inserts.

Additional commercial/industrial sector success stories were added to the Idaho Power website in 2014, with one specific to a Building Efficiency program new construction project titled *CSHQA architects and engineers design sustainability into their own offices*. Copies of the 2014 success stories are provided in *Supplement 2: Evaluation*.

In 2014, Idaho Power created a new commercial video showing how energy efficiency can be incorporated into new construction or as a retrofit. The Hailey Interpretive Center, a Building Efficiency program participant, was one of three projects featured on the video. The IDL was also featured in the video.

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 2014, with 281 attendees, including architects, engineers, interior designers, and project managers. Technical training sessions were held in Boise, Pocatello, 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*.

The Building Efficiency program supports a number of associations and events, including placing ads in the American Institute of Architects (AIA) directory and sponsoring the AIA Honor awards, Grow Smart awards, BOMA symposium, and ASHRAE Technical Conference.

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 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 International Energy Conservation Code (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 2014, under contract with Idaho Power, ADM completed a TRM for Building Efficiency, which provides savings and costs related to existing and new measures for the Building Efficiency program. The TRM was evaluated in 2014, and cost-effectiveness analyses were performed on all measures addressed through the TRM. The analyses resulted in modifications to several existing measures, the removal of one measure, and the addition of six measures to the updated 2014 Building Efficiency program.

Several measures that are not cost-effective remain in the program. These measures include daylight photo controls, high-efficiency A/C units, and high-efficiency heat pump units. After reviewing these measures, Idaho Power determined these measures met at least one of the cost-effectiveness exceptions outlined in OPUC Order No. 94-590. These modification and cost-effectiveness exceptions were approved by the OPUC in Advice No. 14-10 for 2014 and went into effect in Idaho in July 2014 and in Oregon in November 2014. 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 2014. 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 7 of the 69 projects, which encompass approximately 10 percent of the total completed projects in the program. Out of the seven projects verified, six projects were installed with only minor or no discrepancies compared to how they were declared on the final application. The minor discrepancies resulted in a total increase of energy-efficient measures for six of the seven projects. Only one project was installed with less energy-efficient measures than declared. The project involved the installation of additional lighting fixtures and did not meet the program guidelines. Random project installation verification will continue in 2015.

2015 Program and Marketing Strategies

The following strategies are planned for 2015:

- 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 2015 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.

Custom Efficiency

	2014	2013
Participation and Savings		
Participants (projects)	131	73
Energy Savings (kWh)*	50,363,052	21,370,350
Demand Reduction (MW)	5.6	2.4
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$6,705,219	$2,402,903
Oregon Energy Efficiency Rider	$418,537	$60,245
Idaho Power Funds	$49,299	$3,077
Total Program Costs—All Sources	$7,173,054	$2,466,225
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.013	$0.010
Total Resource Levelized Cost ($/kWh)	$0.024	$0.024
Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	4.72	
Total Resource Benefit/Cost Ratio	2.52	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2003	

* Includes 56,499 kWh from Green Motors projects.

Description

The Custom Efficiency program targets energy savings by implementing customized energy efficiency projects at customers' sites. 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. Lighting projects are typically pre- and post-inspected by an Idaho Power contractor or an Idaho Power representative. Incentive levels for the Custom Efficiency program were increased from 12 cents per kWh per year saved to 18 cents per kWh per year saved in July 2014; however, the 70-percent project cost cap remained in place. The lighting incentives for Custom Efficiency changed in July 2014. All standard lighting measures are now paid at

the stated prescriptive amount, which were revised in July 2014. All non-standard measures for interior lighting are now paid at the rate of 18 cents per kWh for first-year savings, up to 70 percent of the cost. All non-standard measures for exterior lighting are paid at the rate of 12 cents per kWh for the first-year savings, up to 70 percent of the cost.

2014 Program and Marketing Activities

Custom Efficiency had a very successful year in 2014. A total of 131 projects, including nine Oregon projects, were completed by 95 customers. Program energy savings increased in 2014 by 135 percent over 2013, from 21,370 MWh to 50,306 MWh.

Savings for the Custom Efficiency program can vary greatly based simply on the timing of projects as evidenced by the drastic difference in program savings year to year. In 2014, 145 new applications were submitted, totaling 64,729 MWh. There were 150 submitted projects in the pipeline for Custom Efficiency at the end of 2014, representing almost 67,665 MWh of potential future savings.

The Custom Efficiency program may also have reached some level of saturation through program maturity, as over 95 percent of the large-power service customers have engaged in the program. With the high percentage of industrial customers that have completed projects in the program, deeper energy savings will be challenging to achieve.

Table 12 indicates the program's 2014 annual energy savings by primary project measures.

Table 12. 2014 Custom Efficiency annual energy savings by primary project measure

Program Summary by Measure	Number of Projects	kWh Saved
Lighting	53	11,107,700
Refrigeration	19	24,158,395
HVAC	4	1,247,404
Compressed air	12	3,446,633
Fan	10	3,326,987
Controls	2	1,850,541
Pump	3	1,629,045
VFD	27	2,733,098
Other	1	806,750
Total[a]	131	50,306,553

[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 2014 activities in the key components are described below.

Facility Energy Auditing

In 2014, five scoping audits and seven detailed audits were completed on behalf of Idaho Power customers. These audits identified over 24,000 MWh per year of savings potential, and most of the customers engaging in these audits have used the information to move forward with projects or have expressed interest in moving forward in the near future. A Scoping Audit and an Energy Management Assessment was provided to 11 facilities as part of the Wastewater Energy Efficiency Cohort (WWEEC) offering.

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. The training is coordinated by the NEEA Industrial Training Project, and Idaho Power is a co-sponsor. Idaho Power provides funds for extra NEEA trainings in the Idaho Power service area. Additionally, Idaho Power pays customers' attendance fee in the classroom-based training sessions. Seven technical classroom-based training sessions were completed in 2014. Two of these classes were two-day classes, and the rest were one-day classes. Topics included compressed air, air-cooled refrigeration systems, pump systems, and fan system efficiency. A schedule of training events is posted on Idaho Power's website.

The level of attendance in 2014 remained high, with 115 Idaho Power-sponsored seats for customers and various Idaho Power staff, consultants, and trade allies out of the 119 total attendees. Customer feedback indicated average overall satisfaction levels of 99 percent.

Additionally, 2014 encompassed Phase IV of the webinar pilot plan coordinated by NEEA. Three webinars were presented free to all attendees. Topics included VFDs, efficient industrial lighting, and energy auditing and troubleshooting. There were 24 Idaho Power end-use customers, multiple Idaho Power personnel, and various consultants attending the webinar recordings. Idaho Power posted the webinar recordings and PDFs on the commercial and industrial training page on the Idaho Power website.

Figure 16 shows the number of Idaho Power-sponsored attendee seats filled as compared to other utility companies for the 2014 in-class NEEA industrial trainings. This figure uses data from ECOVA™'s summary of the trainings provided in the *NEEA Regional Industrial Training Update, December 2014* included in *Supplement 2: Evaluation*.

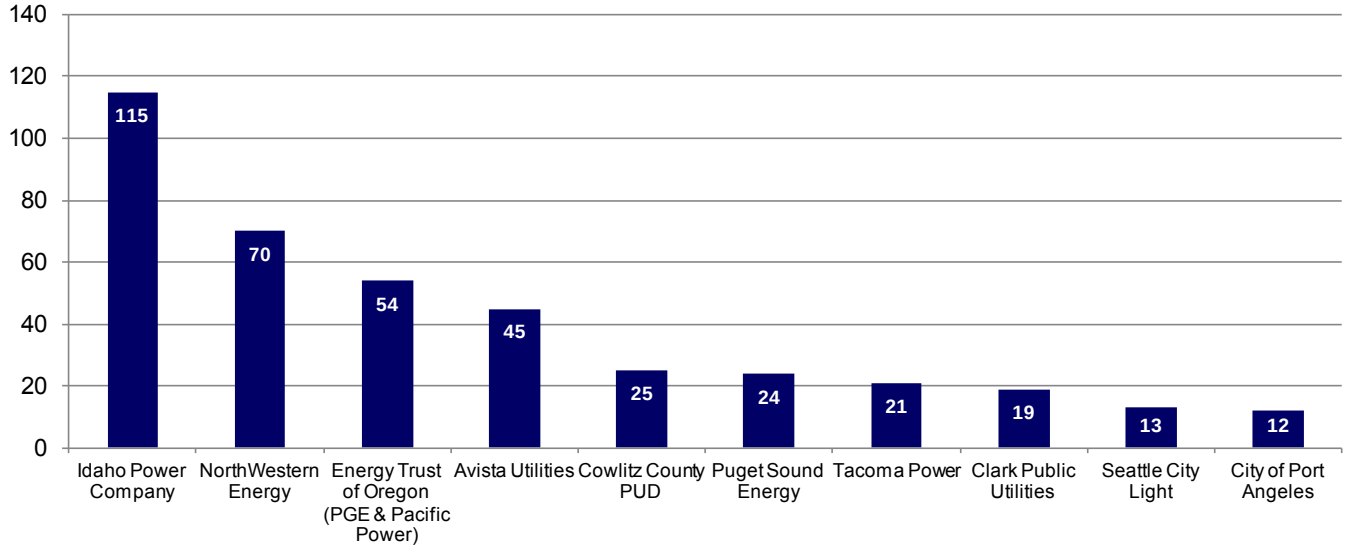

Figure 16. NEEA chart of attendees (in-class seats filled) by attendee sponsor[1]

[1] Data source: NEEA Regional Industrial Training Update, December 2014

Figure 17 shows the number of Idaho Power-sponsored attendee seats filled as compared to other utility companies for the three 2014 webinar-based NEEA industrial trainings. This figure uses data from ECOVA's summary of the trainings provided in the NEEA Regional Industrial Training Update, December 2014, included in *Supplement 2: Evaluation*.

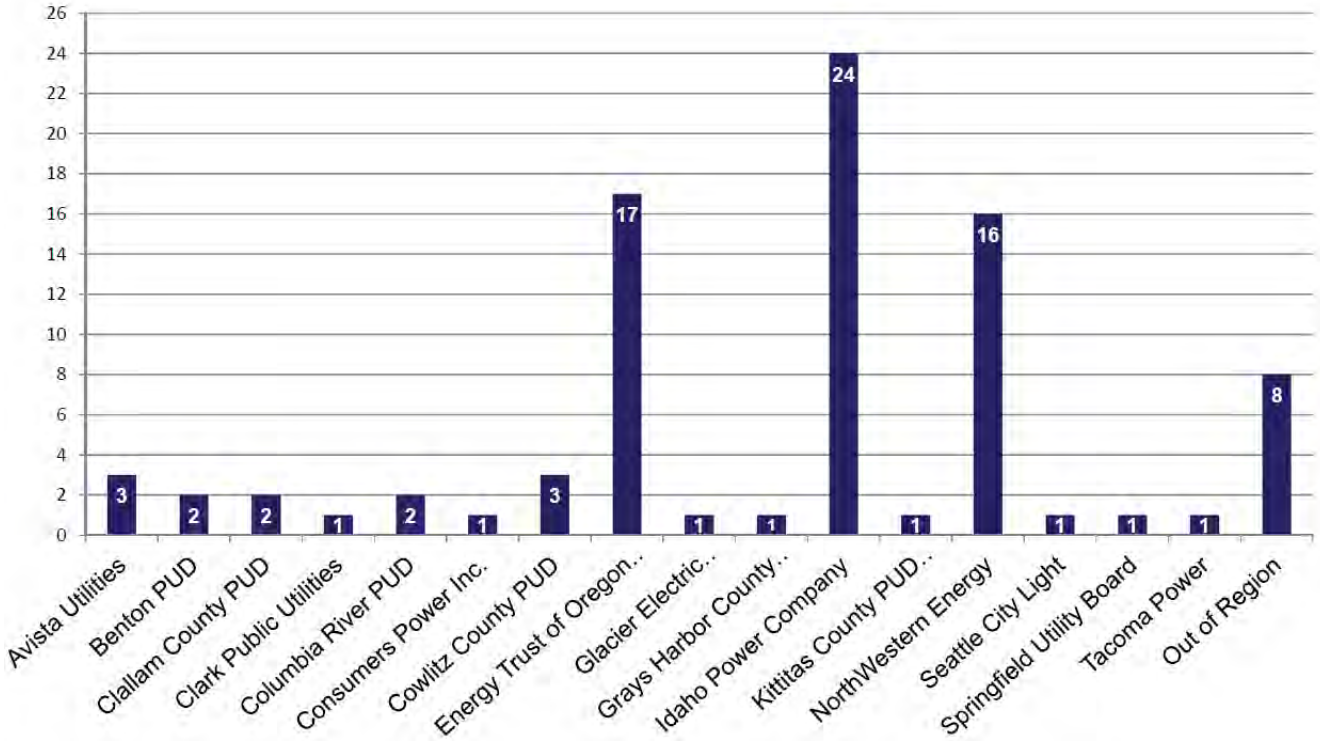

Figure 17. NEEA chart of attendees (webinar-based seats filled) by attendee sponsor[2]

In 2014, Idaho Power sponsored a Refrigeration training at the CWI during the September Treasure Valley Refrigerating Engineers and Technicians Association (RETA) chapter meeting.

In November in Boise, Idaho Power also co-sponsored a two-day RETA Certified Refrigeration Energy Specialist (CRES) review class training with NEEA with 13 customers in attendance. The purpose of the training was to review refrigeration energy efficiency concepts and to prepare the attendees for the RETA CRES exam. The requirement for signing up for the free training was for the students to apply for the CRES exam.

Custom Efficiency program engineers and the MCRs set up numerous target visits with the large commercial and industrial customers in 2014. 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. Because of WWEEC, Custom Efficiency program engineers also set up multiple program marketing meetings with 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.

[2] Data source: NEEA Regional Industrial Training Update, December 2014

Under the IDL, Idaho Power participated in the BSUG. The goal was to facilitate the Idaho BSUG, which was designed to improve the energy efficiency-related simulation skills of local design and engineering professionals. In 2014, 11 sessions were hosted by the IDL. For one session, the IDL hosted the remote viewing of sessions taught by the Building Energy Simulation Forum in Portland. The sessions were made available remotely and were attended by 179 professionals in-person and 318 professionals remotely. 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 provided a Tool Loan Library (TLL). The goal was to operate and maintain a measurement equipment tool loan library, including a web-based equipment tool loan tracking system, and provide technical training on how each tool is intended to be used. There were a total of 286 tools loaned in 2014 as part of 37 total loans. Fourteen new tools were purchased or acquired in 2014. 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 14 Green Rewind motors in the commercial/industrial sector in 2014, contributing 56,499 kWh in annual savings.

In 2013, Custom Efficiency launched two new offerings to increase the total program savings in 2014 and beyond. Early in 2013, the ROCEE offering was rolled out 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. 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. The incentives and the energy savings for year one of the offering totaled $13,886 and 3,678,985 kWh per year. In all cases, the incentive was capped on 70 percent of the eligible costs. Year two incentives and savings will be processed in 2015. Additionally, some ROCEE participants completed capital projects that were encouraged and discussed in the workshops and energy audits. These projects' savings are captured in the main Custom Efficiency program savings.

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 has 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 2014, the SCE offering processed 46 projects, totaling 4,698,478 kWh per year of savings and $540,375 in incentives paid.

In January 2014, Custom Efficiency launched the WWEEC program offering to increase the total program savings. 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, pre-planning meetings were held with consultants and municipalities for upcoming new wastewater construction projects.

2014 was the third 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.

The Custom Efficiency program has achieved a high service-area penetration rate. As stated previously, through 2014, 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 to discuss energy efficiency programs and opportunities. Specifically, only 2 of the 107 large-power service customers have not submitted an energy efficiency project, and all three Special Contracts customers have submitted projects. The company staff are actively working to support these customers in new ways.

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.

The Custom Efficiency program was updated in July 2014, increasing incentive rates to 18 cents per kWh for first-year savings from 12 cents per kWh for first-year savings. As a result, marketing materials and web content were updated to reflect programmatic changes. A letter was sent to MCRs to distribute to their customers to increase awareness of changes to the commercial/industrial programs. Also, a PowerPoint presentation was created for the engineers and MCRs to use as part of their target visits with customers to highlight ongoing program activities and program changes.

In 2014, two new pieces of collateral were created for the Custom Efficiency program: 1) a flyer describing the types of incentives available under the Streamlined Custom Efficiency offering, and 2) a general overview brochure described the Custom Efficiency program. The flyer detailed the

types of improvements that fit under the Streamlined Custom Efficiency program offering, eligibility, and the application process. A new Custom Efficiency brochure was created to easily provide an overview of the program without reading through pages of text. Both of these documents were designed with the same look and feel. MCRs took flyers and brochures with them on customer visits. Both documents are available at idahopower.com/EnergyEfficiency/Business/Programs/CustomEfficiency/default.cfm.

As incentives were received, some commercial customers wanted to publicize the work they have done to become more energy efficient. Upon request, Idaho Power created large-format checks that are used for media events and or board meetings. Idaho Power also worked with customers on coordinating media events.

In early January, Idaho Power reached out to administration offices of cities in the company's service area participating in the Custom Efficiency WWEEC in Boise to encourage media opportunities in their communities. An alert was sent to all press outlets on January 27, the first day of the workshop, in the form of a media advisory, to inform the media of a public relations opportunity, with contact information for each city's public information officer and/or mayor's office representative. At the workshop, Idaho Power interviewed participants for testimonials to be included in an internal *eNews* video that was posted on YouTube in April and the link shared with workshop participants and promoted on social media. The video is titled *Partnering for Efficiency—Wastewater Plants* and is posted at youtube.com/watch?v=ES46PET3B70. In September, a press release was sent to all media on the day of the last of the five workshops held in Boise providing more information about the work being done by Idaho Power partnering with participants to improve energy efficiency throughout the service area. The press release included a link to the YouTube video. Local media was invited to join a tour of one of the local wastewater treatment plants; video footage was taken during the tour and a link to the footage was provided to any media that did not attend. In October, Idaho Power helped create a press release template for the participants to report out their results to local media.

Custom Efficiency has been marketed as a single program and also as part of Idaho Power's suite of commercial energy efficiency programs. Ads that include all Idaho Power commercial programs have appeared in association directories, *Horizon Air* magazine, Boise Metro Chamber of Commerce monthly magazine, the *Business Insider*, the *Idaho Business Review*, and bill inserts. Also, industry-specific energy efficiency brochures were developed in 2014 for several industries, including grocery stores, convenience stores, offices, hotels, restaurants, and healthcare facilities. These brochures are being distributed by CRs and MCRs and are available on the company's website here: idahopower.com/EnergyEfficiency/Business/Tips/eeBusinessSpecificTips.cfm.

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 calculate the energy savings. 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 that 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 2014, seven new success stories described energy efficiency projects submitted by Custom Efficiency program participants. An example of a success story posted in 2014, *A chilling story of ON Semiconductor and Idaho Power incentives*, refers to a project ON Semiconductor completed. Idaho Power provided $53,255 in incentives for energy efficiency measures that reduced costs. The facility expects to save over $25,000 in annual utility bills. Copies of the 2014 success stories are provided in *Supplement 2: Evaluation*.

Qualitative research for the Custom Efficiency program began in late 2013. MDC was selected through a competitive request for proposal (RFP) process. The research served to provide a deeper understanding of customers' awareness and knowledge of the program offering and benefits as well as gauge customer satisfaction with the program and equipment installed. Customer feedback was collected on the program processes and preferred method of communication. The research involved one-on-one interviews with program participants based on the nature of the equipment installed and the industry. MDC interviewed 26 large commercial and industrial program participants in several industries, such as manufacturing, services, and retail trade. In addition, MDC conducted one-on-one interviews with 10 eligible commercial and industrial customers that have not yet participated in the Custom Efficiency program.

As a qualitative study, the following key findings only reflect the general thoughts of those that participated in the interviews and are not representative of the entire program. Overall, the 26 participants were "highly satisfied" with the Custom Efficiency program processes. Some participants cited their own internal processes as more difficult than the program's steps. The "vast majority" that worked directly with an Idaho Power representative were "highly satisfied." The consensus was that when an Idaho Power representative is involved, they tend to "fully drive the process." For both participants and non-participants, the return on investment (ROI) is the primary factor considered before participating. The 10 non-participants interviewed believed they would be "somewhat likely" to participate in the program in the future. They need more guidance around the qualified equipment, probable ROI, and probable upfront costs to help make that decision. Respondents were mixed on an "ideal" outreach strategy; however, most would pay attention to an in-person visit from Idaho Power.

Comprehensive results of all findings related to the Custom Efficiency program research were delivered in early 2014, and a copy of the report is provided in *Supplement 2: Evaluation*.

2015 Program and Marketing Strategies

Additional program offerings are currently under consideration for implementation in 2015. These efforts will be targeted at maintaining a high level of customer participation as well as achieving year- over-year program goals.

Items currently under consideration include the following: additional contractors for energy studies and measurement and verification (M&V) efforts; retro-commissioning offering; and new cohorts including ROCEE II (target Southern Region), Compressed Air (could be a stand-alone offering), Data Centers (could be a stand-alone offering), and Water Supply Energy Efficiency Cohort (WSEEC).

The second year of energy savings for the ROCEE offering will be reported and incentives paid in 2015. The first year of energy savings for the WWEEC offering will be reported and incentives paid around mid-year 2015.

The SCE offering will continue to be offered in 2015, and new measures, processes, and other improvements will be evaluated to continuously improve the effectiveness of this offering.

In addition, 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. A target visit brochure will be developed for the MCRs to use with their customers. The brochure will allow the customer to customize the visit by letting Idaho Power know the type of training and energy information they would like to know more about.

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; funding for detailed energy audits for larger, complex projects; and delivery of NEEA-sponsored Strategic Energy Management improvement practices to customers.

In 2015, additional industry-specific energy efficiency tip brochures will be revised and mailed to targeted customers, along with an insert highlighting possible incentives.

In 2015, an article on the WWEEC offering will be created to discuss the cohort approach on energy efficiency and energy management training with the municipal wastewater segment. A brochure outlining energy efficiency tips and benefits for the wastewater sector will be produced and posted to a new Idaho Power webpage. Hard copies will be printed and distributed at events and through CRs and MCRs as needed.

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 2015. Success stories will continue to be written and produced throughout 2015. 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 2015. These internships are important mechanisms that help drive work-force development in the energy efficiency profession.

Idaho Power will continue to support the IDL in 2015. 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 that are not covered by the existing measures through the Building Efficiency program.

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. The IAC is part of the CAES's Energy Efficiency Research Institute (CEERI), which is a collaboration between Idaho's three state research universities where students provide energy audits and general recommendations to improve operations for mid-sized, local, manufacturing companies.

Easy Upgrades

	2014	2013
Participation and Savings		
Participants (projects)	1,095	1,392
Energy Savings (kWh)	19,118,494	21,061,946
Demand Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$3,020,323	$3,258,427
Oregon Energy Efficiency Rider	$112,623	$101,363
Idaho Power Funds	$17,996	$0
Total Program Costs—All Sources	$3,150,942	$3,359,790
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.015	$0.014
Total Resource Levelized Cost ($/kWh)	$0.025	$0.029
Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	4.08	
Total Resource Benefit/Cost Ratio	2.35	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2007	

Description

Easy Upgrades is Idaho Power's prescriptive measure program for the commercial and industrial retrofit market. 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 specific incentives on a defined list of measures, except for the non-standard lighting. 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*.

Idaho Power commercial and industrial customers and Special Contracts customers are eligible. For projects with expected incentive payments of $1,000 or more, or Complete Lighting Upgrade projects, applicants must submit a pre-approval application prior to installing the project. For projects not requiring pre-approval, customers may elect to skip the pre-approval application process and submit the payment application and accompanying documentation. Customers may assign their incentive payment to a third party (e.g., their contractor or supplier), as approved by Idaho Power.

2014 Program and Marketing Activities

To increase customer and trade ally participation in the Easy Upgrades program, several changes were made to the program in 2014. Idaho Power increased incentives for numerous measures, added new measures, adjusted processes to enhance project submission and review, and added more trade ally outreach support.

The following are highlights of the modifications to lighting measures:

- For purposes of encouraging/rewarding more robust energy savings per project, and after considering how to adopt a form of a comprehensive lighting incentive in the program, Idaho Power added the Complete Lighting Upgrade bonus incentive. This new incentive applied to projects where all the interior inefficient lighting was retrofitted with more cost-effective, efficient technologies, including the incorporation of controls, where applicable. The Complete Lighting Upgrade was a bonus incentive given in addition to the calculated incentive on the lighting tool.

- To increase trade ally and customer participation, the program reviewed all lighting measures to determine if incentive increases could be made. The review resulted in increased incentives on several standard incentive measures and an increase to the non-standard incentive for interior lighting retrofits.

- The program segmented lighting incentives based on an interior or exterior application installation.

- To expedite project submission and reduce trade ally wait time to begin a project, the program eliminated the requirement for projects less than the $1,000 incentive with non-standard measures to be submitted for pre-approval. This change was heartedly received by participating trade allies and has resulted in quicker turnaround of project implementation.

In 2013, Idaho Power contracted with ADM to review the non-lighting Easy Upgrades measures and compile a TRM for these measures. Based on information provided by ADM and the RTF measure list, changes were made to several non-lighting measures. Highlights of the modifications to the non-lighting measures are described below.

New measures were added to the program, such as non-process chillers, electric combination and convection ovens, fryers, steamers, energy-free stock tanks, efficient electric water heaters, and commercial showerheads.

Some measures were removed from the program due to no longer meeting cost-effective criteria. Discontinued measures include refrigeration cases, refrigerators, door gasket repair, roof insulation, standard windows, and window shade screens.

Several measures were modified to reflect the updated TRM data and subsequent cost-effectiveness analysis. Idaho Power increased incentives for refrigeration line insulation, auto-closers, and floating head/suction pressure controls. The company moved VFDs installed on process applications to the Custom Efficiency program due to the highly variable nature of those applications. Idaho Power revised the eligibility and incentive level for qualifying efficient air conditioners, heat pumps, and HVAC controls.

The primary reason the project count decreased in 2014 compared to 2013 can be attributed to the delay in rolling out the 2014 program changes. Idaho Power announced the proposed program changes to participating lighting trade allies beginning in March. At that time, the expected effective date for the changes was the end of May; however, due to various delays, including the filing of OPUC Advice No. 14-06, and the company's desire to have uniform programs in both Idaho and Oregon jurisdictions, the program changes did not become effective until the end of July. Most trade allies and customers

delayed implementing lighting retrofit projects until the program changes became effective because of the increased incentive offered.

In addition to the reduction in lighting project submissions, the program experienced reduction in HVAC and food-service applications. The reason for the decline in these areas is attributed to the program changes in these categories (e.g., the removal of several measures for cost-effectiveness and/or adjustment to incentive or requirements). In 2013, the program had 140 food-service projects. In 2014, the program had 55 (the gasket seal measure went away). In 2013, there were 86 HVAC projects, and in 2014 there were 47.

Following the success from the *It's So Easy Lighting Campaign* targeted-town approach offered to the Pocatello area in fall 2013, the Easy Upgrades program expanded this offer to the Payette/Ontario and Twin Falls areas in spring 2014. In preparation for each week-long event, Idaho Power CRs and interested local trade allies in the two areas identified customers who would benefit from a lighting retrofit. The customers were offered a free facility lighting audit, a lighting consultation, or an expedited inspection of a proposed energy efficiency project. The local lighting trade allies were informed of the event and asked to participate.

The *It's So Easy Lighting Campaign* resulted in many positive outcomes for the program. Ninety-one visits were made to customer facilities in the participating two areas. Customers were appreciative of the offer made to them by Idaho Power. Customers gained tangible project information for decision-making with regard to undertaking a lighting retrofit. Trade allies appreciated the dedicated support the program gave them during the events.

The Easy Upgrades program facilitated 17 program workshops and technical classes across the Idaho Power service area targeting lighting trade allies, electrical contractors, and large customers. Offerings included six program workshops, one lighting 101 class, two lighting controls classes, and eight power quality classes. The program received feedback from trade allies requesting power quality education. The trade allies involved with energy efficiency projects involving VFDs were required to comply with power quality requirements. Idaho Power's power quality engineers developed a class to address this need, and the program facilitated delivery of the classes in 2014. The technical lighting and power quality classes qualified for continuing education credits for licensed electrician and electrical contractor trade allies. These classes and workshops resulted in 470 attendees receiving valuable industry-related training.

In addition to the formal training classes held, Idaho Power staff contacted over 110 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 also partnered with the IDL by sponsoring Daylight Harvesting Controls System classes. These classes provided education and training for electrical contractors and the design community on the concepts of daylight-harvesting control systems. IDL details are located in a description in the Other Programs and Activities section of the *Demand-Side Management 2014 Annual Report* and in *Supplement 2: Evaluation*.

Idaho Power continued to contract with Evergreen Consulting Group, LLC to provide ongoing lighting specialist expertise, project support, and trade ally training. In fall 2014, Idaho Power expanded its

contract with Evergreen Consulting Group to locate personnel in Idaho Power's service area to perform ongoing trade ally outreach to lighting trade allies. The trade ally outreach position enabled Idaho Power to increase support to its largest trade ally group—those working on lighting retrofit projects. Idaho Power continued to contract with Honeywell, Inc., to perform non-lighting project reviews and pre- and post-non-lighting project inspections. Idaho Power continued to contract with RM Energy Consulting to support lighting project review, lighting inspections, and audits for the targeted-town events.

Some inspections matched the information in the submitted paperwork, while other inspections showed discrepancies in submitted paperwork. To ensure projects in the program met program specifications and to verify conditions in the field were as stated on the program application, the Easy Upgrades program conducted 297 pre-inspections and 419 post-inspections, representing 552 unique customers in 2014. The program adjusted the incentive and kWh savings on projects with discrepancies to reflect actual field findings. Idaho Power took various steps to increase the accuracy and thoroughness of incoming paperwork to the program. Program personnel communicated the importance of being accurate on project submittals with trade allies at its annual program update workshops, as well as during communications with trade allies throughout the year. Program staff commended trade allies on submitting accurate and thorough paperwork as well as provided feedback and encouragement to trade allies whose paperwork would benefit from increased accuracy. The new trade ally support person began meeting with trade allies on a more frequent basis to provide ongoing education on program processes, paperwork submittal, and program requirements. In addition, the new outreach support person met with contractors who were new to the program to help them gain a thorough understanding of the program and requirements.

Several marketing tactics were used to promote and create awareness of the Easy Upgrades program in 2014. These included traditional approaches, such as running print ads in the *Business Insider* and *The Idaho Statesman* business section, a cover story in the fall edition of Idaho Power's commercial newsletter *ENERGY@WORK*, and marketing Easy Upgrades in combination with Idaho Power's other commercial/industrial energy efficiency programs. In fall 2014, a full-page Easy Upgrades ad appeared on the back cover of the *Small Business Administration's Resource Guide*. Ads that included all Idaho Power commercial/industrial programs appeared in various association directories, *Horizon Air* magazine, Boise Metro Chamber of Commerce monthly magazine, *Business Insider*, *Idaho Business Review*, and bill inserts.

The program implemented targeted direct mailing as a new strategy in 2014. A direct-mail letter was sent to 22,000 business customers announcing the 2014 program changes. This direct-mail strategy proved most successful in terms of getting customers to act. The letter briefly notified customers of the recently implemented program changes, included several customer testimonials, and specifically listed the Idaho Power CR and the CR's phone number for that particular recipient. Customers were encouraged to call their CR and find out more information about the Easy Upgrades program. Because the direct-mail letter was targeted and specific, customers did not need to look up anything—they were able to make a phone call and find out information right away.

In fourth quarter 2014, a targeted mailing was sent to hotel and motel businesses. The mailing included the brochure *Energy Efficiency Tips for Hotels*. A flyer was inserted in the middle of the brochure that outlined specific Easy Upgrades incentives relevant to the lodging industry market segment.

As part of its Commercial Lighting work group, NEEA continued work on its Reduced Wattage Lamp Replacement (RWLR) Pilot Initiative and development of the Top Tier Trade Ally Initiative Program.

An Idaho Power employee was on this working group, and the company is updated on progress at periodic conference calls and meetings. Details are provided later in the NEEA section of this report.

Idaho Power contracted in 2013 with Opinion Dynamics to conduct an Easy Upgrades process evaluation. Based on the results, the following recommendations were addressed in 2014.

Opinion Dynamics recommended Idaho Power consider adding or shifting staff resources (or subcontractors) to contractor-related outreach. The program contracted with Evergreen Consulting Group for local trade ally outreach support.

The evaluators recommended increasing the Easy Upgrades marketing and outreach budget. Opinion Dynamics stated that "A prudent use of additional marketing funds would be to boost contractor outreach." This recommendation was implemented in 2014 by securing dedicated trade ally outreach support and by increasing the Easy Upgrades marketing budget for 2015.

Opinion Dynamics recommended Idaho Power consider workflow and customer relationship management tools to help staff administer the program to increase efficiencies. Opinion Dynamics recommended it would be ideal to have all program management functions take place within one system. Opinion Dynamics recommended Idaho Power investigate what types of enhancements could be made to CLRIS so the management functions could happen with the existing system or, alternately, they noted there are a number of software packages available with workflow and customer relationship management capabilities. Idaho Power believes it is more reasonable and economical to enhance its existing system, which is tied into Idaho Power's customer billing system, than to invest in a third-party developed system. The company is constantly making enhancements to CLRIS and continues to explore further development.

Cost-Effectiveness

In 2014, Idaho Power reviewed and modified most of the measures offered in the Easy Upgrades program. Idaho Power contracted with Evergreen Consulting Group to review the assumptions within the lighting tool for all the current and proposed standard lighting measure offerings. For the lighting measures, Idaho Power segmented the lighting incentives based on an interior or exterior application installation. Based on the difference in hours of use and end-use load shapes, the benefits associated with the energy savings with interior lighting measures are greater than comparable exterior lighting applications. The incentives for many interior lighting measures were increased to reflect the higher value of these lighting applications. The incentives for exterior lighting measures remained the same. The initial analysis of the standard lighting measures within the tool showed the measures to be cost-effective based on the average input watts and hours of operation. The actual savings for each lighting project are calculated based on the input watts of existing light fixtures, the replacement light fixture, and the actual hours of operation. As a result of these changes, there are over 100 lighting combinations under Easy Upgrades' Standard Lighting Incentives worksheet. In *Supplement 1: Cost-Effectiveness*, these lighting measures have been grouped under 26 similar categories.

In 2014, ADM completed a TRM for Easy Upgrades that provides savings and costs related to existing and new non-lighting measures for the Easy Upgrades program. The TRM was evaluated in 2014, and cost-effectiveness analyses were performed on all measures addressed through the TRM. Additionally, Idaho Power reviewed the list of commercial measures with deemed savings from the RTF that were not currently offered in the program. The analyses resulted in modifications to several existing measures, the removal of non cost-effective measures, and the addition of several measures as listed under the 2014 Program and Marketing Activities section.

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

Although the program did not solicit formal customer satisfaction surveys in 2014, the program received unsolicited customer and trade ally comments throughout the year indicating their satisfaction with the program. In addition, CRs and program staff asked customers about their experience with the program, their contractor, and their retrofit project during inspection visits and phone conversations.

In 2014, three new success stories describing energy efficiency projects were developed and posted to the company's website. The first 2014 success story, titled *Industrial detergent manufacturer cleans up with Idaho Power Easy Upgrades incentive*, references the lighting retrofit project completed at detergent formulator, Technichem Corporation. Company president, Brian Rencher, said, "I would recommend the Easy Upgrades program to anyone who has been hesitant about it, or has an old building. Or even a not-so-old building."

The second success story, titled *Using less energy to create better lighting is a win/win for Riverstone International School*, speaks of another lighting upgrade project. Todd Predovich, Riverstone International School's facilities manager, said, "When I got the proposal and I saw what Idaho Power's incentive was going to be, it felt like a win/win kind of deal." He said they took out half the bulbs and still got brighter classrooms. Todd described that the first day of class after they installed the new lights, the middle school art teacher asked what was done to her classroom. She noticed the difference in the quality of the light, which, in the case of new lighting technologies, can resemble daylight.

The third success story posted in 2014, titled *North Star Charter School graduates to a better lighting system*, refers to the lighting upgrade in North Star Charter School's gymnasium. Dan Conti, the school's athletic director, noted the gym is used for varied and wide purposes—from chess tournaments, quilt shows, and weddings to sports. Dan said, "We got our [incentive check] less than two weeks after the project was completed, so we could use the money to pay the contractor. It worked out nice." Copies of the 2014 success stories are provided in *Supplement 2: Evaluation*.

2015 Program and Marketing Strategies

Idaho Power will evaluate the viability to implement new program offerings and strategies and will look at ways to increase penetration in hard-to-reach small businesses. A customer satisfaction survey is planned to be implemented in 2015.

Marketing strategies for 2015 may include some or all of the following: trade ally trade show, direct mail to small and medium businesses, focus on trade ally outreach, program update workshops, print ads in the *Idaho Business Review* and/or major regional newspapers highlighting customer success stories and trade ally thank you ads, and Idaho Power monthly newsletter and bill inserts.

FlexPeak Management

	2014	2013
Participation and Savings		
Participants (sites)	93	100
Energy Savings (kWh)	n/a	n/a
Demand Reduction (MW)	40	48
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$50,964	$108,842
Oregon Energy Efficiency Rider	$78,131	$137,184
Idaho Power Funds	$1,434,116	$2,497,589
Total Program Costs—All Sources	$1,563,211	$2,743,615
Program Levelized Costs		
Utility Levelized Cost ($/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	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2009	

Description

FlexPeak Management is a demand response program administered by Idaho Power through a third-party aggregator. It 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 load days. The program objective is to reduce the demand on Idaho Power's system during periods of extreme peak electricity use. The program is active June 15 to August 15 between 2:00 p.m. and 8:00 p.m. on non-holiday weekdays. Customers receive notification of a demand-reduction event two hours prior to the start of the event, and events last between two and four hours. Reduction events may be called a maximum of 60 hours per season.

In November 2008, EnerNOC, Inc. was selected through a competitive RFP process to implement the program. Idaho Power entered into a five-year contract with EnerNOC in February 2009. In May 2009, the IPUC approved the contract in Order No. 30805. In June 2010, the program was approved by the OPUC in Order No. 10-206.

EnerNOC is responsible for developing and implementing all marketing plans, securing all participants, installing and maintaining all equipment behind Idaho Power's meter used to reduce demand, tracking participation, and reporting results to Idaho Power. Idaho Power initiates demand response events by notifying EnerNOC, who then supplies the requested load reduction to the Idaho Power system.

EnerNOC meets with prospective customers to identify their potential to reduce electrical energy load during active program hours with minimal impact to their business operations. Customers initially enroll in the program by entering into a contract with EnerNOC. EnerNOC then installs energy-monitoring

equipment at the customer site, simulates a demand response event to ensure customer satisfaction and performance, and officially enrolls the facility in the program.

Each week during the active season, EnerNOC commits a demand-reduction amount in MW to Idaho Power that EnerNOC is obligated to meet during a demand-reduction event. EnerNOC is subject to financial penalties for failing to reach the committed MW reduction.

When Idaho Power anticipates the need for capacity, it notifies EnerNOC of the date and time of the event. Idaho Power has access to near real-time energy-usage data and can continuously monitor the success of the demand-reduction event in aggregate. Customers can also continuously monitor their demand-reduction performance using their individual, near real-time energy-usage data through EnerNOC's proprietary software. This metering data and software are available to participating customers throughout the year.

2014 Program and Marketing Activities

In 2014, Idaho Power worked with EnerNOC to implement changes that would better align the program with the Settlement Agreement approved by the IPUC in Case No. IPC-E-13-14. The changes included extending the contract termination date through the end of 2014, reducing payments to EnerNOC, amending the payment structure, removing the lower bound of EnerNOC's committed load reduction, modifying the program availability dates to June 15 through August 15, and allowing notification of dispatch of a demand response event to occur through a web portal.

During the first week of the program, EnerNOC committed to provide a meter-level reduction of 29.6 MW. This weekly commitment, or nomination, was comprised of 92 facility sites, of which 90 participated in the program in 2013, and two were added in 2014. The weekly nomination at the end of the season was 25.7 MW and was comprised of 93 facility sites.

EnerNOC was contractually obligated to commit to provide a maximum meter-level reduction of 35 MW for each week in 2014. Their weekly commitments ranged from 25.6 MW to 30 MW. Their commitment peaked the first week in July at 30 MW.

Idaho Power called three demand response events for the FlexPeak Management program in 2014. The first two events occurred in July, and the third event occurred in August. EnerNOC exceeded the committed MW reduction in two of the three events. For the third event, EnerNOC did not reach their committed MW reduction; performance was 96 percent of the committed level. The highest hourly reduction achieved was 39.6 MW, calculated using 9.7-percent line losses (36.1 MW at the meter).

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 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. In 2014, the cost of operating the three demand response programs was $10.6 million. It is estimated that if the three programs were dispatched for the full 60 hours, the total costs would have been approximately $13.8 million, and the programs would have remained cost-effective because there is no variable incentive paid for events beyond the three required events.

The FlexPeak Management program was dispatched for 12 event hours and achieved a maximum demand reduction of 40 MW. The total expense for 2014 was $1,563,211.

Customer Satisfaction and Evaluations

EnerNOC sent a post-season survey via email to 93 participants representing all the sites enrolled in the program for 2014. Thirteen participants responded for a 14-percent response rate. All of these responses were slightly down from the previous year:

- When asked how prepared they felt for the demand response event on a scale of 1 to 10, 10 being "fully prepared," the average response was 9.2.
- When asked how likely they were to recommend EnerNOC to a peer or business partner on a scale of 1 to 10, 10 being "definitely will," the average response was 8.7.
- When asked how clear the initial notification they received from EnerNOC was on the day of the event on a scale of 1 to 10, 10 being "very clear," the average response was 8.2.
- When asked how satisfied they were with how EnerNOC managed the demand response event on a scale of 1 to 10, 10 being "very satisfied," the average response was 8.8.

A summary of the results is in *Supplement 2: Evaluation*. Also included in the supplement is the *FlexPeak Management Annual Report*.

2015 Program and Marketing Strategies

Idaho Power has proposed to internally run and manage the FlexPeak Management program, changing the name to the Flex Peak program starting in 2015. As of December 31, 2014, Idaho Power's contractual obligation agreement with EnerNOC ended. Idaho Power reviewed and received feedback from EEAG on the idea of running the program internally during a conference call on January 9, 2015. Idaho Power filed an application with the IPUC on February 4, 2015 (IPUC Case No. IPC-E-15-03), and filed an advice with the OPUC on March 10, 2015. Prior to this decision in fall 2014, the company conducted an informal inquiry with 25 of the largest participants in the FlexPeak Management program. The company asked them how they might respond to a change in the way the program was designed and managed. The responses generally indicated they would likely participate even if the program changed and they were not provided with the same monitoring and coaching services EnerNOC had provided. The feedback supported Idaho Power's proposal to internally run the Flex Peak Program. Current Flex Peak Program customers were notified on February 11, 2015, that EnerNOC would no longer be managing the program and that the company had filed an application with the IPUC to internally manage the Flex Peak Program.

There are several benefits to a company-managed program. First, the company has identified significant annual cost savings. These cost savings directly impact customer-provided funds. Second, the company-offered program would require each participating customer to adhere to the terms and conditions, and receive payments, as available under the Idaho and Oregon tariff schedules publically available. Last, the company welcomes any opportunity to cross-market energy efficiency programs and strengthen the communication and relationship with its customers directly.

Pending IPUC and OPUC approval, the Flex Peak Program will be available from June 15 through August 15, Monday through Friday, from 2:00 p.m. to 8:00 p.m., excluding holidays. Each dispatch

event will last up to four hours per participant within the available program hours. Dispatch events will not occur more than 60 hours per season. In the event of a system emergency, demand response capacity from the Flex Peak Program will be available. Idaho Power will conduct a minimum of three dispatch events per season. There will be two hours of advance notice to participants.

As per the settlement agreement, Idaho Power has proposed to maintain the current capacity of 35 MW during the 2015 program season. The company believes it can retain current participants and enroll new customers to meet this 35 MW amount. In 2015, Idaho Power will market the Flex Peak Program as needed to acquire enough participation to meet the 35 MW target. The marketing strategies will include a variety of channels, including field interaction by CRs and MCRs, and direct mailers.

Oregon Commercial Audits

	2014	2013
Participation and Savings		
Participants (audits)	16	18
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	$9,464	$5,090
Idaho Power Funds	$0	$0
Total Program Costs—All Sources	$9,464	$5,090
Program Levelized Costs		
Utility Levelized Cost ($/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	
Program Characteristics		
Program Jurisdiction	Oregon	
Program Inception	1983	

Description

The Oregon Commercial Audits program identifies opportunities for commercial building owners to achieve energy savings. This is a statutory program as required by ORS 469.865 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.

2014 Program and Marketing Activities

Idaho Power sent out its annual mailing to 1,574 Oregon commercial customers in late September 2014. Customers were notified of the availability of no-cost energy audits and were provided with the Idaho Power publication *Saving Energy Dollars*. Sixteen customers requested an audit, and five customers requested only the brochure. Of the 16 audits, 12 audits were completed by Idaho Power, and 4 were completed by a third-party contractor. The costs were up in 2014 over 2013 because an ongoing invoice for audits performed late in 2013 was not paid for until early 2014.

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, specific business operating practices that can be incorporated to improve energy use are discussed. 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. Since the required parameters of the Commercial Energy 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. This is especially true when the business owner is fully engaged in the audit. Business owners can make the decisions to change operating practices or make capital improvements designed to use energy wisely. Additionally, the audits help identify energy-saving opportunities that may not be obvious to the business owner.

2015 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, the audit process will be used to introduce customers to Idaho Power's energy efficiency incentive programs. The program will be marketed through the annual customer notification.

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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 2014, the active and inactive irrigation service locations totaled 18,773 system-wide. This was an increase of 1.5 percent compared to 2013, 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 1,966,297 MWh of energy usage in 2014, which was a decrease from 2013 by over 6 percent due to a cooler, wetter summer. This sector represented nearly 14 percent of Idaho Power's total electricity usage and about 25 percent of the summer coincident peak demand. 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 Peak Rewards, a demand response program designed to provide a system peak resource and 2) Irrigation Efficiency Rewards, an energy efficiency program designed to encourage the replacement or improvement of inefficient systems and components. Idaho Power also pays incentives to customers participating in the Green Rewind offering in which 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.

In 2014, the Irrigation Peak Rewards program was back in full operation after temporarily being suspended for the 2013 season to address need and cost in light of the company's load and resource balance from the *2013 IRP* showing the company had adequate resources in the near-term. In spring 2014, Idaho Power successfully marketed to the majority of prior participants to continue their participation in the programs, with only an approximated 9-percent drop in potential load reduction from 2013 even though incentives to participate were reduced.

The Irrigation Efficiency Rewards program, in operation since 2003, experienced annual savings that were nearly the same, with 18,511 MWh in 2013 and 18,464 MWh in 2014. During 2014, the Irrigation Efficiency Rewards program contributed 18,428 MWh, while the 15 motors in Green Rewind contributed 35,083 kWh per year of energy savings.

Table 13 summarizes the overall expenses and program performance for both the energy efficiency and demand response programs provided to irrigation customers.

Programs

Table 13. 2014 irrigation program summary

Program	Participants	Total Cost		Savings	
		Utility	Resource	Annual Energy (kWh)	Peak Demand (MW)
Demand Response					
Irrigation Peak Rewards	2,225 service points	$ 7,597,213	$ 7,597,213	n/a	295
Total		**$ 7,597,213**	**$ 7,597,213**	**n/a**	**295**
Energy Efficiency					
Irrigation Efficiency Rewards	1,128 projects	$ 2,446,507	$18,459,781	18,463,611	4.6
Total		**$ 2,446,507**	**$18,459,781**	**18,463,611**	**4.6**

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

Each year, the company conducts a customer relationship survey. Overall, 52 percent of Idaho Power irrigation customers surveyed in 2014 for the Burke Customer Relationship survey indicated Idaho Power was meeting or exceeding their needs in offering energy efficiency programs. Fifty-one 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, 40 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, 92 percent are “very” or “somewhat” satisfied with the program.

In response to a 2013 phone survey conducted by Hansa GCR regarding non-participants of Idaho Power irrigation energy efficiency program options, in 2014 Idaho Power identified irrigation customers that had not participated in either irrigation program. The company’s agricultural representatives (ARs) contacted a few potential customers in each region to ensure awareness of the Idaho Power offerings. To provide information in detail to Idaho Power irrigation customers, in 2014 the company created two irrigation-specific newsletters. Newsletters included energy efficiency information and other important information of interest to irrigation customers.

In 2015, Idaho Power ARs will continue contacting non-participants potentially eligible for program participation and will continue providing a newsletter at least twice a year.

Irrigation Efficiency Rewards

	2014	2013
Participation and Savings		
Participants (projects)	1,128	995
Energy Savings (kWh)[a]	18,463,611	18,511,221
Demand Reduction (MW)	4.6	3.0
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$2,256,235	$2,277,059
Oregon Energy Efficiency Rider	$144,392	$134,789
Idaho Power Funds	$45,880	$29,539
Total Program Costs—All Sources	$2,446,507	$2,441,386
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.016	$0.016
Total Resource Levelized Cost ($/kWh)	$0.119	$0.098
Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	5.67	
Total Resource Benefit/Cost Ratio	1.83	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2003	

[a] Includes kWh savings from Green Rewind projects.

Description

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. For new systems, the incentive is 25 cents per the first year of kWh 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 kWh 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, 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.

2014 Program and Marketing Activities

In 2012, the RTF approved a plan to re-evaluate the deemed savings for each measure under the Menu Incentive Option. Idaho Power met with the RTF in early 2013 and evaluated the research done by the University of Idaho to study the savings impacts of the measures provided in the Menu Incentive Option. In April 2013, the RTF approved the updated savings under the RTF Small Saver category. The 2013 RTF-deemed savings have a slightly different component itemization for some measures.

For example, nozzle replacements, sprinklers, and replacement regulators were combined under one sprinkler package, and gasket and drain replacements were separated into two measures. ADM conducted an impact evaluation in 2013. In this evaluation, it was recommended Idaho Power align measures to be consistent with how the RTF has deemed savings. Idaho Power presented the RTF updated savings values and proposed program changes at the EEAG meeting February 6, 2014. After the EEAG presentation, the program was filed with the OPUC as Advice No. 14-04 and was approved effective May 16, 2014. The 2014 energy savings values reflect the new RTF values for 2014.

Of the 1,128 irrigation efficiency projects completed in 2014, 1,000 were associated with the Menu Incentive Option, providing an estimated 14,051 MWh of energy savings and 2.75 MW of demand reduction. The Custom Incentive Option had 128 projects, of which 70 were new irrigation systems and 58 were on existing systems. This option provided 4,377 MWh of energy savings and 1.83 MW of demand reduction for the year. Also during 2014, irrigation customers contributed 35,083 kWh of energy savings from 15 motors participating in the Green Rewind opportunity.

Idaho Power ARs, the program specialist, and the agricultural engineer participated in training that maintains their Certified Irrigation Designer (CID) and Certified Agricultural Irrigation Specialist (CAIS) 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 2014, Idaho Power provided seven workshops promoting the Irrigation Efficiency Rewards program throughout the service area. Approximately 250 customers attended workshops in Blackfoot, Aberdeen, Eden, Twin Falls, Mountain Home, Nampa, and Ontario. Idaho Power also accepted invitations to present the program at four workshops sponsored by agricultural groups in Shoshone, Hailey, Ontario, and Burley. Exhibitor booths were displayed 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 target visits or communicated with a selected number of non-program participants to increase customer education. A database of irrigation dealers and vendors was maintained for direct-mail purposes. Irrigation dealers and vendors are a key component to the successful marketing of the program; therefore, direct mailings containing the most up-to-date program information, brochures, and dealer-specific meetings ensured correct program promotion.

The Irrigation Efficiency Rewards brochure was updated in spring 2014 and distributed to all irrigation rate schedule customers using direct mail. Idaho Power ARs also distributed large quantities to irrigation dealers and vendors in the service area.

In 2014, the newsletter *Irrigation News* was created to improve customer satisfaction with all irrigation customers in Idaho and Oregon. The newsletter shares valuable information specifically for irrigation customers to help clarify processes, help customers better understand their bill, provide information on energy efficiency and energy efficiency programs, clarify rates, and provide information on safety. The newsletter stimulated numerous opportunities to communicate and dialogue with irrigation customers on the variety of topics to help improve customer relations and promote the Irrigation Efficiency Rewards program. Media outreach included an Irrigation Efficiency Rewards success story provided to Capital Press about a project in Richfield, Idaho, that upgraded a farm’s irrigation system.

The total number of print publications that marketed the Irrigation Efficiency Rewards program consisted of 10 print ads in five agricultural print publications. Idaho Power also used two opportunities

in radio advertising during Agri-Action and the Future Farmers of America (now FFA) National FFA Week. New creative advertising material was launched in fall 2014 to promote Idaho Power's Irrigation Efficiency Rewards program. Four ads were created that targeted Idaho-specific crops, including potatoes, sugar beets, hay, and corn. Digital ads using the new creative material are being tested with the target audience to determine if they respond well to digital information sources. Digital ads are running in *The Capital Press* from December 19, 2014, to January 16, 2015, with a guaranteed 60,000 impressions during the cycle.

At the end of 2014, a postcard was mailed to all irrigation dealers and vendors thanking them for the integral role they play in the success of this program.

In 2013, Idaho Power conducted an impact evaluation of the Irrigation Efficiency Rewards program. This evaluation was performed by third-party contractor ADM. Data for the study was collected through a review of program materials and interviews with participating agricultural customers, agricultural trade allies, and Idaho Power staff. Based on the results of this evaluation, ADM provided recommendations for program improvement. Their recommendations and Idaho Power's 2014 responses are described below.

The evaluators suggested Idaho Power consider including NEBs as part of a comprehensive cost-effectiveness test for the program and that currently, there is no known previously published research conducted on NEBs for irrigation systems. ADM indicated the RTF provides values for societal costs and benefits for menu components. However, Idaho Power has identified the RTF benefits being referred to are already considered as part of the power system benefits and costs and are not considered NEBs. Idaho Power converted its previous NEB assumptions to a per-kWh basis as recommended by ADM and is currently collecting customer-calculated NEBs to more accurately account for these benefits. A new brochure and application providing an opportunity for customers to identify NEBs, such as yield, labor, and other benefits, was direct-mailed to all irrigation customers in May 2014.

ADM recommended that Idaho Power update the menu component incentives and expected savings to match the RTF. ADM noted that the 2013 version of the RTF combined the existing nozzle measure, low-pressure regulator measure, and sprinkler-head measures into a new "sprinkler package" measure. The application for the 2014 irrigation program should be revised to match the measures covered under the RTF. To comply with this ADM recommendation, changes to the Irrigation Efficiency Rewards program aligning the measures and expected savings to the RTF recommendations were presented to EEAG at the February 6, 2014, EEAG meeting. These changes were filed with the OPUC and approved in Advice No. 14-04, effective May 16, 2014, and are reflected in the new program brochure.

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 may use half as much energy as a full-circle center pivot, or acres irrigated using spring water for a portion of the season reduces seasonal pumping kWh usage. 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 case is still pending. For details on the cost-effectiveness assumptions for the Menu Incentive Option, see *Supplement 1: Cost-Effectiveness*.

2015 Program and Marketing Strategies

Marketing plans for 2015 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 to create success stories by highlighting efficient irrigation system designs for program promotion.

The Idaho Power *Irrigation News* newsletter will continue to provide a direct line of communication on valuable information that will clarify processes, help customers better understand their bill, provide information on energy efficiency and energy efficiency programs, clarify rates, and provide information on safety, specifically for irrigation customers.

Idaho Power will continue to work with the Scientific Irrigation Scheduling (SIS) sub-committee consisting of RTF members, utility representatives, and professional experts to determine the potential for SIS programs.

A 2015 media plan was created 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. The effectiveness of online ads will be evaluated with this target audience.

In early 2015, Idaho Power will test the effectiveness of translating various agriculture workshops and presentations into Spanish. The company will look at how this is received and make appropriate decisions moving forward.

Irrigation Peak Rewards

	2014	2013
Participation and Savings		
Participants (service points)	2,225	n/a
Energy Savings (kWh)	n/a	n/a
Demand Reduction (MW)	295	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$1,374,724	$407,496
Oregon Energy Efficiency Rider	$104,995	$30,117
Idaho Power Funds	$6,117,494	$1,634,494
Total Program Costs—All Sources	$7,597,213	$2,072,107
Program Levelized Costs		
Utility Levelized Cost ($/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	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2004	

Description

Idaho Power's 2014 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. 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, has eliminated or delayed the need to build supply-side resources.

In 2013, Idaho Power filed IPUC Case No. IPC-E-12-29 to temporarily suspend the program to allow time to work with stakeholders and interested parties to determine how the program should operate in the future. These workshops resulted in settlement agreements reached in Idaho Case No. IPC-E-13-14 and Oregon UM 1653. The Irrigation Peak Rewards program was again offered as a demand response program in 2014, with some modifications. Program modifications resulted in an approximately $5 million in savings with only an approximately 9-percent drop in participation.

Per the terms in the settlement agreement, Idaho Power agricultural irrigation customers in both Idaho and Oregon that had service locations that participated in the past were eligible for participation in 2014. Customers could chose 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. Historically, customers could choose a third option, the Electronic Timer Option. In 2014, this was discontinued. Customers who had service locations that had participated in the past in the Electronic Timer Option had the ability to participate by selecting the Automatic Dispatch Option.

For customers participating in 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 2014. 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 14.

Table 14. 2014 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

2014 Program and Marketing Activities

After the Irrigation Peak Program suspension in 2013, Idaho Power used workshops, trade shows, and direct customer mailings to make a concerted effort to encourage past participants to re-enroll in 2014. Despite reinstating the program with a reduction in incentive amounts and modifications to the event notification, most past participants re-enrolled to participate in 2014. The number of service points enrolled to participate in the program for 2014 was 2,225. This accounted for approximately 81 percent of the eligible service points. Three load control events occurred in July 2014, with the highest load reduction occurring on July 10 and providing an estimated 295 MW on July 10.

In 2014, 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 2014 Irrigation Peak Rewards program at seven workshops throughout the service area. Approximately 250 customers attended workshops in Blackfoot, Aberdeen, Eden, Twin Falls, Mountain Home, Nampa, and Ontario.

Idaho Power also accepted invitations to present the program at four workshops sponsored by agricultural groups in Shoshone, Hailey, Ontario, and Burley. Exhibitor booths were displayed 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 2014 program eligibility requirements and program offering.

An information flyer was made visually more appealing and easier to read by using a brochure format for existing Peak Rewards participants in December 2014. In October *Connections*, the program received recognition in the article *Demand Response Programs Ease Summer Peak*.

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 2014, the cost of operating the three demand response programs was $10.6 million. It is estimated that if the three programs were dispatched for the full 60 hours, the total costs would have been approximately $13.8 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 295 MW. The total expense for 2014 was $7,597,213 and would have been approximately $10.8 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*.

In 2014, Idaho Power contracted PECI to complete an impact evaluation of the 2014 Peak Rewards program. The goals of the impact evaluation were to determine the demand reduction (in MW) during three actual called events and determine the counterfactual realization rate if an event been called on each business day during the program's June 15 through August 15 season.

PECI completed analyses of curtailment events held on July 2, July 10, and July 14, 2014, each containing four dispatch groups that curtailed enrolled irrigation pumps in rolling four-hour increments. The results of the curtailment event analyses showed maximum meter level demand reductions of 257.9 MW, 268.9 MW, and 250.5 MW, respectively, for the three events, which do not include system losses of 9.7 percent.

Due to the Irrigation Peak Rewards program suspension in 2013, annual device maintenance did not occur for nearly two years, resulting in a 7-percent device failure rate, as indicated in the evaluation report, lowering the overall realization rates. The past analysis of the program realization rates indicates they would be higher if device maintenance were at normal levels, resulting in fewer device failures.

As part of the impact evaluation, PECI developed a counterfactual realization rate analysis that demonstrated that the time period within an irrigation season has a large influence on the realization rate. With 2014 device failures excluded, realization rates ranged from 65 percent at the beginning of the program season to a peak realization rate of 74 percent during the first two weeks of July. The counterfactual realization rate in the last quarter of the season (August 1–15) dropped off significantly to 34 percent with device failures included. This was due to a high percentage of pumps being shut off during the first two weeks of August due to crop maturity and uncharacteristically extreme rainfall of 2 to 4 inches in southern and eastern Idaho. This resulted in a skewed realization rate that was an exception to what has been determined in past analyses.

The results of the impact evaluation showed Idaho Power's Irrigation Peak Rewards program functioned as intended, and, if properly maintained, can be relied on to provide dispatchable demand reduction to the electricity grid. The evaluation also identified opportunities to maximize the demand reduction benefit the program delivers to the electricity grid. First, Idaho Power may increase the program's realization rate by working to address device failure problems. The uncharacteristically high number of device failures in 2014 provided valuable information on how to identify and address device failures. In an effort to increase realization rates by minimizing device failures, Idaho Power may also decide to use more AMI devices for load control in the future.

Finally, as seen in the counterfactual realization rate analysis results, maximum load reduction potential is realized during the peak of the irrigation season. This time period generally equates to the last week of June through the middle of July, which usually correlates to Idaho Powers' overall system peaks.

2015 Program and Marketing Strategies

Idaho Power will continue to work with past participants in this program who are eligible to participate in 2015 to encourage their participation.

Idaho Power will conduct 8 to 10 workshops throughout the company's regions to familiarize customers to 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 2015 program season. Idaho Power ARs will continue one-on-one customer contact to inform and encourage program participation.

In early 2015, Idaho Power will test the effectiveness of translating various agriculture workshops and presentations into Spanish. The company will look at how this is received and make appropriate decisions moving forward.

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MARKET TRANSFORMATION

Northwest Energy Efficiency Alliance

NEEA encourages and supports cost-effective market transformation efforts in Idaho, Oregon, Washington, and Montana. Through partnerships with local utilities, NEEA motivates the marketplace adoption of energy-saving services and technologies and encourages regional education and marketing platforms. NEEA provides training and marketing resources across residential, commercial, and industrial sectors. Idaho Power accomplishes market transformation in its service area through membership and coordinated activities with NEEA. Idaho Power has been a funding member of NEEA since its inception in 1997.

The fifth year of NEEA's current, five-year funding cycle ended in 2014. As early as 2009 Idaho Power expressed a desire to see a change in the way NEEA services were offered that would differentiate "core" services of market transformation activities from optional services, whereby utilities could elect to support projects and activities that matched their interests and needs. During 2014, the company continued to advocate for this model through multiple meetings with NEEA, by actively participating on the NEEA Board of Directors and exploring alternative funding models, and by chairing and serving on the Alternative Funding Model Working Group Committee of the NEEA Board of Directors. The end result of these efforts was that the NEEA *2015–2019 Business Plan* offered optional programs and activities. Idaho Power executed an agreement to continue its participation in NEEA and chose not to participate in some optional programs and activities where it believes it is providing or can provide the same services at a lower cost or more effectively for the 2015 to 2019 funding cycle. This delivers significant energy-savings potential and ultimately saves Idaho Power customers $3,304,560 when compared to the 2010 to 2014 funding cycle agreement.

NEEA performs several MPERs on various energy efficiency efforts each year. In addition to the MPERs, NEEA provides market-research reports, generally through third-party contractors, for energy efficiency initiatives throughout the Pacific Northwest. Each of the reports applicable to Idaho is included in the NEEA Market Effects Evaluations in *Supplement 2: Evaluation*.

Idaho Power has participated by phone, online, or in person in a variety of NEEA activities. In 2014, Idaho Power energy efficiency staff served on NEEA's Board of Directors, the Regional Portfolio Advisory Committee, Residential Advisory Committee, Commercial Advisory Committee, Industrial Advisory Committee, Irrigation Advisory Committee, Cost-Effectiveness and Evaluation Advisory Committee, Consumer Electronics Energy Forward Initiative, Conduit online community, Regional Emerging Technologies Advisory Committee (RETAC), NWRRC, Northwest Heat Pump Water Heater Group, Code Collaborative, and Regional Lighting Strategy Working Group and participated in NEEA-sponsored studies and research.

Idaho Power also participates in NEEA's Northwest Research Group. This group meets throughout the year to catalogue and coordinate energy efficiency research projects regionally. Idaho Power collaborates with regional utilities doing similar program evaluations or that may face similar program challenges.

Commercial and Industrial NEEA Activities in Idaho

NEEA continued to provide support for commercial energy efficiency activities in Idaho in 2014. This included partial funding of the IDL and local BetterBricks® trainings and workshops.

Technical training and education continue to be important to Idaho Power's industrial customers, helping them identify energy efficiency opportunities within their facilities. Seven technical training classes were completed in 2014. Topics included compressed air, air-cooled refrigeration systems, pump systems, and fan system efficiency. The level of attendance at these classes remained high, with 119 participants attending the classes. See the Custom Efficiency program section for more details regarding the technical training classes.

Additionally, 2014 encompassed Phase IV of the webinar pilot plan coordinated by NEEA. Three webinars were presented free to all attendees. Topics included VFDs, efficient industrial lighting, and energy auditing and troubleshooting. There were 24 total Idaho Power region participants that attended the webinar sessions in 2014.

Idaho Power co-sponsored with NEEA a two-day RETA CRES review class training with 13 customers in attendance. The training reviewed refrigeration energy efficiency concepts and prepared the attendees for the RETA CRES Exam.

Idaho Power participated as a member of the NEEA Commercial Lighting Working Group. This group formed through collaboration with stakeholders to identify opportunities and strategic needs to support the region's success in commercial lighting. NEEA launched its first strategy from this report in November 2013, a market test of a midstream RWLR Initiative. The initiative goal is to change the pricing, stocking, and sales practices of reduced-wattage fluorescent T-8 lamps in the maintenance market. Targeted electrical distributors across the region were selected for participation. No distributor in Idaho Power's service area was selected for participation. Results of this pilot will be available in 2015. The pilot results will be used to determine whether NEEA, in coordination with stakeholders, will scale this program in 2015 across the region to try to transform this largely untapped market. NEEA's second strategy, Top-Tier Trade Ally Training, is in the development stage. This strategy will provide advanced lighting training to high-performing trade allies throughout the region, with an end result of achieving deeper energy savings in commercial lighting retrofit projects. Development of this strategy will continue throughout most of 2015, with implementation of pilot trainings in Idaho in 2016.

Idaho Power continued its partnership with BOMA of Boise and NEEA to offer continued coaching and support to the Kilowatt Crackdown™ participants in 2014. In 2013, 43 buildings competed in the competition, which included benchmarking their building in ENERGY STAR® Portfolio Manager and implementing low-cost and no-cost efficiency measures. In 2014, this effort was continued with ongoing coaching and support to further their energy efficiency efforts.

NEEA's pilot project in Idaho for their Existing Building Renewal (EBR) initiative was ongoing in 2014. This initiative is aimed at developing and testing new industry tools for commercial property owners engaging in deep energy retrofits. The Idaho project will be phased in through 2016. Idaho Power worked with The Idaho Statesman's *Business Insider* to feature the EBR initiative as their January cover story, along with other articles about *Retrofitting for the Future*. The issue appeared January 15, the same day Idaho Power issued a press release recognizing a local commercial real estate firm for its participation in the initiative.

In 2014, NEEA continued to have demonstrations on projects on variable-rate irrigation (VRI) and variable-speed irrigation (VSI) at various locations. VRI works by allowing a varied amount of water coming out of each sprinkler along an irrigation pivot. VSI is where the speed of the pivot irrigation system is varied as it makes a rotation for irrigation. The potential for energy savings exists with both technologies if different areas of the field have different water requirements. Information from NEEA indicated additional technical development was required and the adoption of the technology

would be challenging. The NEEA Board of Directors voted to remove the Initiative from the portfolio in the *2015–2019 Business Plan*. NEEA staff completed the 2014 demonstrations and a series of final reports that document the qualitative and quantitative findings from the three years of the Initiative. A copy of the reports will be included on the CD accompanying *Supplement 2: Evaluation* in next year's *Demand-Side Management 2015 Annual Report*.

NEEA also worked with Oregon State University to develop a common set of data standards for vendors or manufactures to better integrate technologies such as soil sensors, flow meters, pumping systems, and pivot systems—including VRI & VSI—to promote the combination of irrigation technologies for increased efficiency of water use. In 2015, through its scanning efforts, NEEA will continue to evaluate the usefulness and usability of the data standards.

Residential NEEA Activities in Idaho

NEEA supported a variety of residential programs and associated activities in Idaho Power's service area in 2014. NEEA is directly involved in providing additional funding and support for ENERGY STAR® Homes Northwest, the DHP Pilot, and the Heat Pump Water Heater (HPWH) research project. Idaho Power served on workgroups for the DHP, HPWH, Retail Product Portfolio, RETAC, and a short-term dryer specification workgroup. Idaho Power participated in the Conduit online community and the Northwest Regional Retail Collaborative.

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. Most of these activities are managed through a third-party implementer hired by NEEA.

NEEA is taking energy-efficient homes to the next step above ENERGY STAR with its Next Step Homes pilot program. The goal of this innovative pilot program is to identify the most cost-effective ways to achieve maximum energy savings in residential new construction. NEEA recruited builders throughout the Northwest to build to a high-performance specification, then installed monitoring devices in the homes to track energy-saving performance. NEEA is currently trying to recruit a Next Step Homes builder in Idaho Power's service area.

NEEA has coordinated the DHP Pilot research project since 2009, which includes data collection, design, results analysis, savings calculations, and ongoing promotional activities. Idaho Power was a member of the NEEA Ductless Heat Pump Workgroup during 2014. The goal of the pilot is to encourage the adoption of these products while displacing the use of existing electric-resistance zonal heating systems in homes. NEEA created and launched a regional marketing program, which was conducted during summer and fall 2014. The goal of the program was to increase consumer awareness of DHPs. The promotion included the use of social media, as well as radio, television, and website ads. Idaho Power currently offers a $750 cash incentive for qualified homeowners who install a qualified DHP system.

NEEA coordinated a residential HPWH research project in the Northwest region that started around five years ago. Idaho Power was represented on the NEEA HPWH Workgroup during 2014. A goal of the project is to promote the adoption of higher-efficiency HPWHs over traditional resistance-heat water heaters. Another goal is to provide a business case to the DOE encouraging the DOE to make the federal standards and test methods for domestic electric water heaters more stringent. The research project includes data collection, design, analysis, savings calculations, and promotions. NEEA's promotions included rebates to residential homeowners who had certain HPWHs installed. The promotion required

the HPWH to be installed by a contractor trained by NEEA. NEEA also arranged for a HPWH discount program to be offered through retailers. The research project was conducted in 2014 and will continue in 2015. Idaho Power is monitoring this research closely to determine when a northern tier HPWH will be developed that is reliable and applicable to Idaho Power's climate zones.

NEEA developed a baseline forecast in fall 2012 describing the naturally occurring market adoption of HPWHs over a 20-year span. The baseline forecast excluded any market influence from utilities or NEEA initiatives. NEEA published the *NEEA Heat Pump Water Heater Baseline Forecast Research*, created by Evergreen Economics, on October 23, 2014. A copy of NEEA Report E14-300 is included on the CD accompanying *Supplement 2: Evaluation*.

NEEA performed field research beginning in fall 2013 to evaluate the ability for HPWHs to provide demand response to the electric grid. Field research involved fitting 20 homes in the Northwest with HPWHs. The water heaters received communication control signals from a remote third party. Units were tested for their ability to increase and decrease water heating electric load by adjusting storage tank temperature set points. On September 29, 2014, NEEA published the *Heat Pump Water Heaters for Demand Response and Energy Storage* created by Ecofys. A copy of the NEEA Report E14-296 is included on the CD accompanying *Supplement 2: Evaluation*.

In 2014, NEEA launched the RPP. Idaho Power participated in the advisory workgroup for the RPP. 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 for a portfolio of energy-efficient products sold through the retail channel.

The 2014 RPP goal was to expand and test the upstream approach with different product categories and different retailer types. To maintain relationships with electronics retailers developed under the Consumer Electronics Energy Forward Initiative, the RPP offered incentives on televisions and home theaters in box/soundbars. To test the model at big box, do-it-yourself retailers, the RPP offered incentives on air purifiers and dishwashers.

Idaho Power also participated in NEEA's Residential Advisory Committee meetings and activities throughout 2014. Additionally, one member of the residential programs team, one member of the commercial/industrial programs team, and one analyst attended NEEA's Efficiency Exchange in May 2014. In September 2014, the DSM residential lighting program specialist and a DSM program analyst participated in a one-day lighting summit hosted by NEEA. Summit participants explored ways to capture full-category retail sales data for light bulbs.

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 2014 to review the emerging technology pipeline for BPA, NEEA, and the NWPCC *Seventh Power Plan*. Technologies of particular interest to the group include CO_2 heat pumps, high-performance manufactured homes, LEDs and advanced controls, and home energy management systems.

An Idaho Power residential specialist was involved with the NWRRC in 2014. This collaborative forum evaluates and coordinates regional retail strategy. Activities of this group included two multi-year pilot projects. The first was aimed at understanding market lift promotions. The second aimed at improving retail contractors' participation in utility programs. The group also serves as the advisory workgroup to NEEA's RPP initiative.

NEEA Funding

In 2014, Idaho Power began the fifth year of the 2010 to 2014 *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 2014, 100 percent was funded through the Idaho and Oregon riders.

In 2014, Idaho Power paid $3,305,917 to NEEA. The Idaho jurisdictional allocation of the payments was $3,140,621, while $165,296 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 2014 will be released in June 2015. For the annual report, preliminary funder share savings for 2014 were assumed to be similar to 2013 final savings. In the *Demand-Side Management 2013 Annual Report*, the NEEA preliminary funding share savings reported were 18,346 MWh. The revised estimate included in this report for 2013 final funding share NEEA savings is 20,568 MWh. Preliminary estimates reported by NEEA for 2014 indicate Idaho Power's share of regional market transformation MWh savings for 2014 is 20,000 MWh. 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. This is achieved 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 2014. These guides were primarily distributed via insertion in local newspapers and at events across Idaho Power's service area. Process improvements implemented in 2014 include the following:

- Enhanced design elements identified in 2013 were repeated in the 2014 guides to further the publication's identity and strengthen readership recognition.
- Idaho Power's Technical Editing team provided expertise and training to improve readability.
- All past guides were updated to encourage continued use as presentation handouts and one-on-one distribution by Idaho Power's CRs.
- Focus groups provided feedback about the guide's format and content.
- Guide circulation was increased in two ways: 1) the *New Plymouth News* was added to the list of local newspapers distributing the energy efficiency guide and 2) the guide was included with each free, non-subscriber delivery of the *Blackfoot Morning News* and *Meridian Press*.

The *Spring/Summer Energy Efficiency Guide*—Inserted into 14 newspapers and delivered to 215,539 homes on April 27, 2014. The guide focused on helping customers understand how their behavior impacts their electricity bill. The guide highlighted Idaho Power's myAccount as a tool to help learn about energy use, answered questions about how and why weather impacts energy use, offered tips for keeping costs down during extreme weather, and encouraged customers to consider the value proposition for energy efficiency when buying, selling, and remodeling their homes. It also contained a suggested "path" for becoming energy efficient at home.

The *Fall/Winter Energy Efficiency Guide*—Inserted into 16 newspapers and delivered to 237,144 homes on October 26, 2014. The guide focused on ways to keep heating bills down on a limited budget and specifically targeted lighting as an all-around energy efficiency opportunity available to all. The guide offered suggestions for benchmarking home energy use using myAccount and current energy codes. It also presented Idaho Power's various residential programs via a simple, colorful chart to help customers compare relative costs, benefits, and eligibility details for each program.

The release of each guide received public relations support through numerous communication channels, including an item in the weekly *News Briefs* email to all media (April 21 and October 28) and a feature during the monthly live studio energy efficiency segment on KTVB-TV on October 27. The November issue of Idaho Power's *Connections* customer newsletter included an image display for the guide as well.

In 2014, 10,351 additional guides were distributed at energy efficiency presentations and events, up from 3,447 in 2013. This increase is an indication of their ongoing value and success of the strategy to prolong the shelf-life of these guides. Links to current guides were given prominent positions on Idaho Power's website during the appropriate seasons. Additionally, the full selection of energy efficiency guides was made available for viewing and download via Idaho Power's website.

As part of Idaho Power's Account Manager team, the Residential Energy Efficiency Education Initiative staff played a key role by gathering research from neighboring utilities and organizing customer and employee focus groups. These groups provided insight into how customers interacted with the tool and what features might best be used to market the tool. Following the focus groups, the tool's name was changed from Account Manager to myAccount and two of three key messages for the advertising campaign were focused around educating customers about their individual home's energy use.

As a result of customer comments gleaned from the spring focus groups conducted by MDC (discussed in-depth in the Marketing section), marketing tactics were used in November to expand the distribution channels and test the demand for the *Fall Energy Efficiency Guide* and the 96-page booklet *30 Simple Things You Can Do to Save Energy*. The following marketing tactics were used to drive demand for these publications:

- A display image appeared in the November issue of the *Connections* customer newsletter, which was delivered to approximately 415,000 customers.
- Bill inserts were placed in over 40,000 residential customer bills.
- A digital ad campaign ran from October 25 to November 23.

All advertising drove customers to a webpage where they could request printed copies mailed directly to their homes. They could also view the publications online or download printable versions. For those customers without internet access, a toll-free number was provided and an order form was included on the bill insert. Based on the marketing campaign, another 587 *Fall/Winter Energy Efficiency Guides* and 582 *30 Simple Things You Can Do To Save Energy* were mailed by request directly to customers.

The Residential Energy Efficiency Education Initiative distributed energy efficiency messages through a variety of other communication methods during 2014. Increased customer awareness of energy-saving ideas was accomplished 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. During the year, 9,070 English and 623 Spanish copies were distributed directly to customers via community events and local libraries; by CRs during in-home visits; by participating contractors in the Home Improvement Program, Energy House Calls, 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. To keep energy efficiency top-of-mind among employees, an educational video was produced. Each employee received a personal email invitation to view the video and become an ambassador for energy efficiency by learning about the company's energy efficiency programs.

The Kill A Watt™ Meter Program remained active in 2014. 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. A second

hands-on table display was developed and made available to assist libraries in engaging patrons, promoting energy efficiency, and increasing circulation of the energy efficiency kits. Additionally, the Kill A Watt meters were featured during a live studio news program on KTVB-TV in Idaho Power's monthly energy efficiency segment with Idaho Power's CR&EE manager.

As in previous years, Idaho Power took the lead in strengthening the energy education partnership with secondary school educators through continued participation on the Idaho Science, Technology, Engineering and Mathematics (iSTEM) Steering Committee. In 2014, 16 teachers completed the 4-day, 2-credit professional development seminar facilitated by Idaho Power and co-sponsored by Intermountain Gas and the Idaho National Lab (INL).

Idaho Power continued its co-sponsorship of the US Green Building Council lecture series, *Sustainable Energy Sustainable Homes*. In 2014, Idaho Power provided additional support to extend the reach through web-based video broadcasting of live seminars and recorded content and PowerPoint slides available for online reference. The eight workshops, facilitated by local trade experts, provided information and expertise to encourage energy efficiency upgrades. These sessions continue to be popular with homeowners, builders, developers, and architects, with 143 attending in 2014. Idaho Power also opened discussions regarding a new partnership with the City of Meridian to produce an energy-related video emphasizing wise energy use as part of the city's *It Starts at Home* campaign.

Idaho Power continued to engage communities in energy efficiency discussions at many community events throughout Idaho Power's service area. In April, Idaho Power continued to sponsor the Portneuf Valley Community Environmental Fair and actively promoted attendance at this event with a bill message for communities surrounding Pocatello. Idaho Power's Pocatello CRs staffed the booth and promoted wise energy use and participation in energy efficiency programs.

In September 2014, Idaho Power participated in the FitOne Expo in Boise, Idaho. The event continued to be important due to the size of the audience and because Idaho Power surveys confirmed that the demographics of attendees continued to align with Idaho Power's residential energy efficiency target audience. In 2014, the booth theme capitalized on LED lighting imagery from the integrated campaign launched in August and previewed the energy efficient interactive home graphic in the background. Idaho Power staff at the event educated attendees about the benefits of LED lighting technology and distributed 2,500 LED light bulbs to an engaged and receptive audience.

Idaho Power further increased its energy efficiency presence in the community by providing energy efficiency and program information through 116 outreach activities, including events, presentations, trainings, and other outreach activities documented in the Outreach Tracking System. In addition to these activities, Idaho Power field staff throughout Idaho Power's service area delivered 164 presentations to local organizations addressing energy efficiency programs and wise energy use. In 2014, Idaho Power's Community Education team provided 67 presentations on *The Power to Make a Difference* to 1,756 students. The CERs and other staff also completed 32 senior citizen presentations on energy efficiency programs and shared information about saving energy to a total of 912 seniors in the company's service area. Additionally, Idaho Power's energy efficiency program managers responded with detailed answers to 288 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 fourth 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. "Ways to Save Energy" was one of the 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 Scan* weekly employee newsletter, the *Connections* customer newsletter, and Idaho Power's Facebook page, articles were written for the North End Neighborhood Association newsletter (circulation 5,300 print/341 electronic). Energy efficiency tips were provided for three of the monthly KTVB-TV news live studio interview segments.

Idaho Power also researched the possibility of working with a vendor to produce energy efficiency kits and age-appropriate curriculum for high school students. The idea was presented to EEAG as a potential new program in the August. With EEAG input, Idaho Power met with local high school teachers to refine the potential offering and revisited it with EEAG again in November. The next step in exploring this potential offering is to convene a committee of teachers for the purpose of gathering input, identifying appropriate deliverables, and preparing an RFP.

The initiative's 2015 goals are to increase program participation and promote education and energy-saving ideas that result in energy-efficient and conservation-oriented behaviors and choices. In addition to producing and distributing educational materials, the initiative will play an integral role in providing LED lighting education and distributing LED bulbs to customers. Idaho Power will improve the accessibility of educational information available to customers on the company's website and work with the Program Planning Group to explore behavioral program opportunities that may include an enhanced kit program, promotion of myAccount, home energy reports, or a pilot program to test another behavioral message, such as clothes drying rack adoption.

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.

For the 2013 to 2014 school year addressed in this report, Idaho Power partnered with the National Energy Foundation (NEF) for the 2013 fall semester and Resource Action Programs (RAP) for the 2014 spring semester. NEF's partnership for the fall 2013 semester ended Idaho Power's test year, and RAP was selected as Idaho Power's long-term partner beginning January 2014.

During the 2013 to 2014 school year, 6,312 kits were delivered to 208 classrooms in 73 schools within Idaho Power's service area, resulting in 1,491 MWh of first-year savings. In fall 2013, program participants were recruited by invitation from a regional Idaho Power CER, resulting in 2,419 student participants. In spring 2014, the program was marketed to all elementary schools with open enrollment, resulting in 3,696 student participants.

Once a class enrolled in the program, teachers received curriculum and supporting materials. Students received classroom study materials, a workbook, and a take-home kit containing three CFLs, 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 returned feedback to the vendor indicating how the program was received and which measures had been installed. Each vendor used this feedback to provide a comprehensive program summary report showing program results and savings.

Teachers said they liked the program. Fall feedback indicated 97 percent of teachers said the content was good or excellent and they would recommend the program to colleagues. Spring feedback indicated 100 percent of teachers would recommend the program to other colleagues and 97 percent would conduct the program again. Student engagement was high as well—73 percent of student surveys were returned in the fall and 81 percent were returned in the spring.

Both NEF and 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. Based on this information, NEF estimates that fall 2013 participants saved 635,782 kWh per year. RAP estimates that spring 2014 participants saved 855,443 kWh per year. The total annual savings of 1,491,225 kWh appears under the Residential Energy Efficiency Education Initiative in the Appendices.

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

Easy Savings Program

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 customers receiving energy assistance through the federal LIHEAP and provide $125,000 to CAP agencies in the Idaho Power service area on a prorated basis. This order specified that Idaho Power provide educational information to customers who heat their homes with electricity provided by Idaho Power. This is being accomplished through the development and distribution of kits containing low-cost, self-install energy efficiency items and educational materials.

The Easy Savings Program straddles two calendar years. The LIHEAP program starts in November each year at CAP agencies, while Idaho Power summarizes activities based on a January to December cycle. However, the following report summarizes activities from November 2013 through October 2014 and covers future plans for the 2014 to 2015 program.

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/LIHEAP applicants.

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

- CFLs (13 W and 18 W)
- Hot-water temperature card and refrigerator thermometer
- Rope caulk and outlet draft stoppers
- Kitchen faucet aerator and high-efficiency showerhead
- LED nightlight and reminder magnets for the laundry
- *Quick Start Guide* to installation
- Mail-in survey

By April 2014, all 2,127 kits from the 2013 to 2014 program year were distributed by regional CAP agencies to Idaho Power customers approved to receive LIHEAP benefits on their Idaho Power bills.

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

There were 202 completed surveys received from customers describing their experience in installing kit items in their homes during the 2013 to 2014 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.

Ninety-two percent of household respondents reported they have, or will, lower their heat during the day, and 84 percent reported they will lower their heat at night. Eighty-five percent of the households reported installing both CFLs provided in the kit, and another 7 percent said they installed one of the CFLs. Eighty percent of the households reported installing the high-efficiency showerhead.

Overall, survey results showed that over 62 percent of the households that received the kits and returned a survey installed five or more kit items. Seventy-nine 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 2013 to 2014 program, three gift certificates valued at $100 each were provided by CAPAI to encourage survey completion. A drawing from all returned surveys was held July 2014. Three households won a $100 gift certificate.

For the 2014 to 2015 program, checks totaling $125,000 were sent by Idaho Power in September 2014 to the five Idaho regional CAP agencies. Each agency used 30 percent of the agency's allotment to cover expenses for administering the program at their agency. By the end of September 2014, an order for 2,067 kits was placed by CAP agencies. Kits were shipped from the vendor and received at CAP agencies in November 2014 for distribution to customers throughout the 2014 to 2015 LIHEAP season. One LED bulb replaced the CFLs this year.

Upon completion of kit distribution and receipt of corresponding survey results for the 2014 to 2015 program, Idaho Power and CAPAI will consider program changes for the future.

Commercial Education Initiative

Since 2008, the Commercial Education Initiative has 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.

This initiative is also used to educate and support trade allies and key stakeholders working in the energy efficiency market. A major strength of the initiative is the emphasis on 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.

The Commercial Education Initiative oversees the distribution of informational materials and works directly with trade allies and other market players who, in turn, support and promote Idaho Power's

energy efficiency programs. Routinely, individual site visits are conducted to educate customers on energy-saving opportunities at their business.

In 2014, Idaho Power carried out its plan to capitalize on effective customer projects by developing 11 success stories highlighting customers' energy efficiency projects for posting on Idaho Power's website. Copies of the success stories are provided in *Supplement 2: Evaluation*.

Other marketing efforts included a March and a November *ENERGY@WORK* newsletter created and mailed to all commercial customers. These newsletters had business-specific articles of interest, with an emphasis on energy efficiency. Idaho Power's customer newsletter, *Connections*, is distributed monthly in customers' bills. In 2014, 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. The Commercial Education Initiative works with and supports multiple stakeholders and organizations to increase customers' energy efficiency knowledge. 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 2014, the Commercial Education Initiative 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. The IFMA teaches four modules of its Facility Management Professional (FMP) credential. The FMP training equips facility managers with the knowledge and skill sets to promote, justify, and implement sustainable and energy efficiency projects and programs within their facilities.

Plans for 2015 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; and 5) supporting customers via facility walk-throughs, including energy audits.

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 (ETO); 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 2014, Idaho Power staff participated in all of the RTF's meetings and was involved in various sub-committees, including the RTF Policy Advisory Committee.

In 2014, the RTF continued efforts to bring measures and documentation in line with the protocols and guidelines put in place in 2012. Additionally, the RTF wrapped up the work began in 2013 to calibrate the residential building energy model commonly referred to as the SEEM model for existing and new construction single family homes. The results from the region-wide 2011 RBSA study, which included on-site home inspections of a regional representative sample of single-family, multi-family, and manufactured homes, were analyzed by the RTF to calibrate the SEEM model inputs. The SEEM calibration impacts all of Idaho Power's residential weatherization and HVAC measures. Idaho Power participated in the SEEM Affected Measures Workgroup throughout the process and provided feedback on the proposed methodologies and support documentation prepared by RTF contract staff. The results for SEEM calibration for manufactured-home savings are expected to be completed by RTF staff in 2015.

Additionally, Idaho Power representatives participated in the SIS sub-committee. SIS is a behavior-based agricultural program to optimize irrigation. A calculator converts water reduction to kWh savings. The current RTF SIS protocol is out of compliance with the current RTF guidelines. BPA, in partnership with the RTF, developed a research plan and standard protocol to bring the measure into compliance. BPA plans to implement the study during the 2016 growing season with the sample segmented based on the "high" and "medium to low" water-level crops within the two geographic areas in the population: the Columbia Basin and southern Idaho. Idaho Power representatives will continue to participate and lend their expertise to the sub-committee in 2015.

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. On January 21, Idaho Power helped sponsor the 10th anniversary celebration of the IDL in Boise, participating in the open house and tour of the facility. Company representatives recognized the lab's commitment to high-performance energy-efficient building through research, education, and outreach efforts in the Intermountain West. Idaho Power issued a media advisory, inviting members of the press to attend the event and share the story of the IDL's success.

In 2014, Idaho Power entered into an agreement with the IDL to perform the following 14 tasks.

Building Metrics Labeling

The goal of this task was to expand on the 2012 and 2013 development of Building Metrics Labeling (BML), a graphical display of four building metrics on a single sheet. The metrics displayed are Energy Use Intensity (EUI), 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.

In 2013, a beta version web-based portal for self-directed use of a building's data to create BML sheets was created. The final version became available for public use in early 2014.

In addition to finalizing the portal, the IDL followed up with previous users of the BML sheets and supported new users. The IDL promoted the BML sheet at a BOMA monthly luncheon meeting and to the City of Boise in conjunction with an educational Lunch & Learn session. It was also marketed at the 2014 BOMA Symposium and the Kilowatt Crackdown™ Awards ceremony. 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. This series includes sessions outside the Treasure Valley.

In 2014, 20 technical training lunches were scheduled in Boise, Pocatello, and Ketchum. The trainings were coordinated directly with architecture and engineering firms and organizations and were attended by a total of 281 architects, engineers, interior designers, project managers, and others. Nineteen sessions were held in 2014. Due to a 2014 scheduling conflict, one remaining session is scheduled for January 29, 2015.

Fourteen sessions were offered in Boise, two in Pocatello, three in Ketchum, and one in Chubbuck. The topics of the lunch sessions (and quantity of each) were: *High Performance Retrofits* (1), *Integrated Design Principle* (2), *Integrated Design Lab Overview* (2), *Radiant System Design Considerations* (2), *Daylight Sensing Electric Lighting Controls* (2), *High Performance Classrooms* (2), *Climate Responsive Design—Tools and Methods* (1), *M&V + Tool Loan Library* (1), *Architectural HVAC Integration Strategies* (2), *Integrated Design Case Studies* (2), *Daylight in Buildings: Schematic Design* (1), *Daylight in Buildings: Getting the Details Right* (1), and *Benchmarking, M&V, + Tool Loan Library* (1). The report is located in the IDL section of *Supplement 2: Evaluation*.

Fall Educational Series

The goal of the Fall Educational Series was to educate architects, engineers, building owners, building operators, designers, and construction professionals about energy efficiency through a series of publicly available evening lectures.

In 2014, the title of the series was *Design Decisions and Outcomes*, which focused on design decisions and strategies for energy efficiency. Four sessions were held that featured topics that supported this concept. The topics were *Developer Choices and Local Stories*, *Design for Off: A Seattle HVAC Case Study*, *Outstanding Local Projects*, and *Integrated Lighting Practices*. Each session consisted of 1.5 hours of lecture followed by time for questions. The sessions were held at Idaho Power's CHQ and were offered live, as well as broadcasted webinars. The live and remotely broadcasted presentations had 92 total participants. 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 BSUG, which is designed to improve the energy efficiency-related simulation skills of local design and engineering professionals.

In 2014, 11 monthly BSUG sessions were hosted by the IDL. In most cases, the IDL taught the sessions themselves or brought in outside speakers. The sessions were made available remotely and were

attended by 179 professionals in person and 318 professionals remotely. Evaluations 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 4.0 for 2014.

Finally, each presentation was archived on the BSUG 2.0 website along with general BSUG-related content. The BSUG 2.0 site logged 2,150 total visits with 1,132 specific to Idaho users in 2014. 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.

In 2014, the IDL provided technical assistance on 37 Phase I projects, 9 Phase II projects, and 3 Phase III projects. Overall, 35 percent of the projects were on new buildings and 65 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 2014 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, which has been built up in previous years, 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 37 tool loan requests in 2014, which included a total of 286 tools loaned. There were 14 tools purchased or acquired in 2014 for the TLL. The tools were loaned to engineering firms or

equipment representatives, educational institutions, industrial plants, and office/commercial facilities. The report is located in the IDL section of *Supplement 2: Evaluation*.

Simulation Quality Assurance

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.

The information gained from these activities is conveyed to the local design community through other education and outreach tasks, such as the BSUG and Lunch & Learn sessions, both described above. Additionally, system issues have been uncovered and corrected due to the investigation associated with these efforts, which helps ensure persistence of energy savings. In 2014, four highly visible and innovative projects were analyzed, consisting of a local architectural and engineering firms' new radiant cooling system, a university classroom building, and two mid-sized commercial buildings. The report is located in the IDL section of *Supplement 2: Evaluation*.

Heat Pump Calculator

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. It was determined there was 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 developed in 2013 and underwent testing in early 2014. Feedback from validation testing has been integrated into the current version of the tool. The report is located in the IDL section of *Supplement 2: Evaluation*.

Planning and Commissioning for Daylight Harvesting

The goal of the Daylight Harvesting task in 2014 was to expand on the previous task of creating a hands-on demonstration and training for electrical contractors by offering on-site classes for them to learn the necessary skills to successfully install and commission daylight harvesting lighting-control systems.

Nine Daylight Harvesting classes were held in 2014. These classes were attended by 29 participants, representing 102 continuing education hours. The various control systems in the IDL space provided a great venue to educate electrical contractors and the design community on daylight-harvesting technology. Classes were held in a two-part series: Part 1 provided in-class training, and Part 2 provided hands-on commissioning education. The report is located in the IDL section of *Supplement 2: Evaluation*.

Customer Representative Training

The goal of the Idaho Power CR training task in 2014 was to develop and provide training to Idaho Power CRs to identify common energy efficiency opportunities in commercial buildings. The training consisted of three classroom style modules: Module 1: Pre-Walk Benchmarking and Analysis, Module 2: Typical Building Systems and Efficiency Opportunities, and Module 3: Specialty Systems and Efficiency Opportunities. This training was delivered across the Idaho Power

service area. The twelve classroom-style trainings had a total of 55 attendees. Nine on-site field trainings were conducted in conjunction with the classroom-style trainings and had a total of 45 attendees. The report is located in the IDL section of *Supplement 2: Evaluation.*

Residential Heat Pump Calculator

In 2014, the IDL created a 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. It also enables the user to compare the energy consumption of a house with various types of heating and cooling systems. The tool will be evaluated in 2015 to determine if any enhancements are needed.

Residential Heat Pump Calculator—Weatherization Solutions & Home Improvement Programs Module

The IDL created a computer-based residential energy calculator in 2014. This tool calculates energy consumption for residential houses for pre- and post-weatherization. The tool has the ability to accept various descriptive user inputs to calculate estimated savings based on the interaction between potential upgrades and various heat systems.

Residential Electronically Commutated Motors

In 2014, the IDL investigated ECMs at the request of Idaho Power. These motors are sometimes used in residential forced-air heating and cooling systems. These motors can be an energy-efficient option when compared to other types of motors used in the air handlers for these systems. An air handler is a device that circulates air through ductwork. Idaho Power is evaluating the ECM motor for a potential new measure to be added to the H&CE Program. The work the IDL performed was to help determine if an ECM motor would be a suitable energy-saving replacement motor for the traditional permanent split capacitor motor. The results of their work will be reviewed in 2015. The report is located in the IDL section of *Supplement 2: Evaluation*.

The contract between Idaho Power and the IDL will continue through 2015. In 2015, the IDL will continue or expand work on the BML sheets, Lunch & Learn sessions, BSUG, foundational services, building efficiency verification, TLL, heat pump calculator, and daylight demonstrations. In addition, they will begin work on four new tasks—Commercial Real Estate Support, IBOA and IFMA Organization/Chapter Support, Targeted Energy Expansion of Daylight Pattern Guide, and Whole House Fan Energy Savings.

Local Energy Efficiency Funds

The purpose of 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 three applications for LEEF in 2014 and awarded funds to one applicant.

Meridian Food Bank requested funding to replace one of their existing upright freezer units with a new, more energy-efficient unit. Idaho Power met with the Meridian Food Bank at their facility to gather more information on the project. Given the ongoing need for this type of replacement at the Food Bank and the positive community impact this operation serves, it was decided that an alternate method of funding would be more appropriate. As of December 31, 2014, the Idaho Power CR for this site worked

with the customer and Idaho Power executives to investigate a potential corporate donation to support this facility's efforts.

A high-performance builder in the Wood River Valley area submitted an application regarding substantial energy efficiency measures associated with a large, new-construction residence. Energy efficiency measures included reduced heating loads due to premium construction methods and materials, highly efficient ground-source heat pumps, and ECMs. Idaho Power convened a working group of residential and commercial engineers and cost-effectiveness analysts from Idaho Power's energy efficiency department to review the application and request additional information. Energy calculations were supported by energy modeling software, RESNET, and an estimated 95,834 kWh per year in heating system savings. After a thorough review of the details surrounding this LEEF request, the team approved funding for $9,100.

The third project submitted regarded potential lighting retrofits in Boise High School's auditorium. A brief review revealed the project would qualify for existing commercial lighting incentives. The applicant was asked to submit the project to Idaho Power's energy efficiency commercial program staff.

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 2013 in an effort to address implementation of the new series of building-related codes. 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.

The Energy Code Collaborative brought forth its recommendations to the Idaho Building Code Board, which included the adoption of the *2012 IECC Residential Code* with amendments and the *2012 IECC Commercial Code* in 2013. The recommendation was adopted by the Idaho Building Code Board and was presented in the 2014 legislature session. Legislature passed the rules effective March 21, 2014, and the changes will go into effect January 1, 2015.

Idaho Power's Internal Energy Efficiency Commitment

Several Idaho Power properties were enhanced in 2014 with the goal of improving energy efficiency. During the Payette Operations Center remodel, ceiling insulation was increased from R-20 to R-38, and a Watt-Stopper lighting-control system was added. At four substation buildings across the service area, old black built-up roofs were replaced with white metal roofs for reflection purposes.

Numerous CHQ remodel projects were completed in 2014. Plaza I was remodeled, and the old T-12 and T-8 lighting fixtures were replaced with LED fixtures controlled by a lighting system. Plaza II was remodeled, and the old T-12 system was replaced with LED fixtures. The existing natural gas-fired rooftop unit was replaced with a higher efficiency rooftop packaged heat pump unit rated at an energy efficiency ratio (EER) of 16 that has a payback cost of 14 months. The Plaza II roof was replaced with a reflective, better-insulated thermoplastic polyolefin roof to open the floor plan to the rafters in the barrel-shaped building. All the three-lamp T-12 fixtures on CHQ fourth floor and sixth floor were replaced with two-lamp T-8 fixtures. The CHQ fourth floor was completely remodeled with new recycled carpet, low-VOC paint, and low-partition walls for increased light transmission throughout the floor.

An outcome of the Energy Efficiency Audit conducted at the BOC with Tikker Engineering in 2013 was the installation of building-wide direct digital control system controls at the BOC. While not all of the suggested energy efficiency measures were addressed, the company incorporated measures that would provide the most value. Total energy reduction with the changes implemented at the BOC was estimated at 300,000 kWh annually.

At BCW, the chillers and air handlers were replaced. The new equipment exceeded ASHRAE standards for efficiency and were quieter than the previous chillers. Cooling and heating problems in the Grid Operations area were corrected. While no baseline was taken from the original air handling units (AHU) and chillers, the new air handlers run at 60 percent of the amperage compared to the old equipment. Idaho Power will continue to monitor the performance of the new chillers and AHUs in 2015.

In 2015, Idaho Power will continue with a number of major remodels on the CHQ buildings downtown, starting with the remodel of parts of CHQ sixth floor and seventh floors. The company will begin remodels on the CHQ eighth floor going into 2016. Remodels will incorporate energy efficiency items, such as lower partitions, lighting retrofits, and lighting controls.

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, as well as either 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.

Employee-suggested sustainability initiative projects yielded several sustainability programs in 2014, including three programs with annual energy savings. At BCW, computer room “occupancy programming” was incorporated into the building management system. This allows one of several air-conditioning units to remain idle when the system detects the room is unoccupied, bringing an annual energy savings estimate at over 33,000 kWh. Idaho Power installed VFDs at the company’s data centers, with a combined savings of over 240,000 kWh annually.

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. 33161

On March 14, 2014, Idaho Power filed Case No. IPC-E-14-04 with the IPUC requesting an order finding the company had prudently incurred $25,951,486 in DSM expenses in 2013, including $21,748,331 in Rider expenses and $4,203,155 in demand response program incentive expenses. The filing included three reports: *Demand-Side Management 2013 Annual Report*, *Supplement 1: Cost Effectiveness*, and *Supplement 2: Evaluation*. Due to a previous IPUC decision in Case No. IPC-E-13-08 to decline Idaho Power's request to deem prudent the increases in the company's Rider-funded labor-related expenses for 2011, 2012, and 2013, Idaho Power did not request a prudence determination for labor-related expenses of $269,432 in the filing. In Order No. 33161, dated November 4, 2014, the IPUC deemed $25,951,486 as prudently incurred and stated:

> The Commission notes that Idaho Power issued a strong rebuttal of these claims, offering several reasons to explain the recent decline in its DSM expenditures and a defense of its marketing efforts. While the Commission is cognizant of the recent decline in energy savings, acknowledged by the Company in its Application, we are encouraged by the Company's reply comments that its commitment to cost-effective DSM has not waned and that it has a renewed interest in taking action to procure all cost-effective DSM.

Errata to Order No. 33161

In an Errata to Order No. 33161, dated November 7, 2014, the Commission amended the original Order to read:

> The Commission is cognizant of the recent decline in energy savings, acknowledged by the Company in its Application, and notes that Idaho Power issued a strong rebuttal of these claims, offering several reasons to explain the recent decline in its DSM expenditures and a defense of its marketing efforts. We are encouraged that the reply comments seem to demonstrate the Company's renewed interest in procuring all cost-effective DSM.

> In this case, the Commission restricts its findings to the prudency of the Company's 2013 expenditures. The Commission agrees that the issues raised by Staff and other parties are significant and warrant a more in-depth review. We direct the parties to do so in the context of the Company's next Integrated Resource Plan filing.

Energy Efficiency Working Group

In response to the Errata, Idaho Power organized an Energy Efficiency Working Group, inviting members of the IRP Advisory Committee (IRPAC), EEAG, and other interested parties to participate. The Energy Efficiency Working Group held two sessions to conduct an in-depth review of the issues referenced in the Errata to Order No. 33161. The sessions were open to the public and held at Idaho Power's CHQ on December 3 and 18.

The first workshop session included a discussion of a broad range of energy efficiency and resource planning issues that can be classified into two general categories: 1) strategies related to program delivery and 2) the treatment of energy efficiency in the resource planning process. Because the IRP process does not address program delivery issues, it was suggested to narrow the focus of the discussion to only the treatment of energy efficiency in the resource planning process. The strategies related to the successful delivery of programs will be better addressed by EEAG.

The second workshop session agenda included a comparison of potential studies from other regional utilities; a description about how Idaho Power's incorporates energy efficiency in the IRP; a comparison of how other regional utilities incorporate energy efficiency in long-range planning; a review of Idaho Power's investigation into including Transmission and Distribution (T&D) investment deferral into the benefits in the energy efficiency cost-effectiveness analysis; and offered an open discussion time to address other issues. The information presented at the second meeting prompted extensive discussion among participants and ultimately served to inform Idaho Power's next steps.

Idaho Power believes its current treatment of energy efficiency in the resource planning process appropriately balances the need for responsible and effective resource planning and the desire to prudently pursue all cost-effective energy efficiency. Idaho Power recognizes that achieving those balanced objectives on an ongoing basis requires continued review and evaluation of the planning process and an awareness of related industry best practices.

Idaho Power is committed to investigate the extent to which transmission and/or distribution benefits result from energy efficiency measures and programs, as well as the approximate value of such benefits. When available, the company will present the results of this investigation to the IRPAC.

The company is also committed to continue to discuss the program delivery issues identified by workshop participants and by IPUC staff and some interveners in comments filed in Case No. IPC-E-14-04. The company plans to use EEAG as the forum to provide customers, IPUC and OPUC staff, and other interested stakeholders an opportunity to provide advice and recommendations to Idaho Power in formulating, implementing, and evaluating energy efficiency and demand response programs and activities.

Energy Efficiency Rider-Funds Transfer

On April 15, 2014, Idaho Power filed the annual PCA Case No. IPC-E-14-05 with the IPUC. As part of that case, the company proposed that the commission approve a one-time transfer of $20 million of

surplus Idaho Rider funds to customers as a credit, or reduction, in the 2014/2015 PCA on customers' bills. In Order No. 33049, the commission approved the one-time 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 weather-normalized energy sales. This mechanism removes the financial disincentive that exists when Idaho Power promotes energy efficiency programs that are designed to reduce customer usage. The FCA is a permanent mechanism limited to the residential and small general-service customer classes in Idaho in recognition of the fact that, for these customers, a large percentage of fixed costs are recovered through their volumetric energy charges.

On May 30, 2014, the IPUC issued Order No. 33047 approving the company's request to implement FCA rates beginning June 1, 2014, for the 2013 fixed-cost deferrals. The overall rate adjustment was a 1.18 percent increase for residential and small general-service customers to collect a combined $14.9 million. This adjustment was an increase of $6 million from the previous year's FCA. Residential customers experienced a rate increase of 0.1143 cents per kWh, while small general-service customers experienced an increase of 0.1447 cents per kWh. The rate will be in place until May 31, 2015.

Promotion of Energy Efficiency through Electricity Rate Design

Idaho Power believes rates offered to customers should reflect their cost of service in order to provide cost-based price signals and encourage the wise and efficient use of energy.

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 better 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 move their usage from higher-priced, on-peak time periods to lower-priced, off-peak time periods and possibly lower their bills. Idaho Power sent out a mailing in late spring of 2014 reminding participants that higher summer rates go into effect June 1. The spring mailing promoted the use of myAccount and reminded customers to use electricity wisely. A description of this plan is at Idaho Power's website (idahopower.com/TOD).

In July 2014, Idaho Power concluded the final impact study of the residential TOD pilot. The study was a customer behavior study that evaluated how the TOD pricing impacted energy consumption for participants in the plan. Participant's response to the TOD pricing signal was determined using a quasi-experimental study design structure with a TOD participant treatment group and a closely matched non-participant control group. Idaho Power also calculated the billing revenue impact of this pilot by calculating a shadow bill for each of the customers on the TOD pricing plan versus the standard residential three-tiered pricing plan in Idaho.

Key findings are summarized below:

- There was no statistically significant change in overall energy consumption observed in the study participants on the TOD rates.
- For the study group as a whole, the data analyzed showed a **reduction** in energy use from peak time periods by the analyzed participants of the pricing plan verses the control group. All but 2 out of 12 months showed statistically significant reductions in energy use during peak periods. Over the 12-month study period, this combined reduction in peak-time-period consumption was approximately 3 percent of the total kWh use.
- For the study group as a whole, the data analyzed showed an **increase** in energy use during off-peak time periods by the analyzed participants of the pricing plan verses the control group. Five out of the 12 months showing statistically significant increases. During the 12-month study period, this combined increase in off-peak time-period consumption was approximately 1 percent of the total kWh.
- The overall response rate to the residential TOD pricing pilot plan solicitation was 1.3 percent.
- The study estimates that there was a revenue reduction of $119,000 when actual TOD energy billings of all TOD pilot participants are compared with standard plan shadow energy bill calculations for all TOD pilot participants during the 12 months of the study, September 2012 through August 2013.

As of the end of 2014, over 1,500 Idaho customers were TOD plan participants.

APPENDICES

This report includes five appendices. Appendix 1 contains financial information for 2014, 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 2014. 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 *2014 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, 2014)

Idaho Energy Efficiency Rider		
2014 Beginning Balance	$	6,685,745
2014 Funding plus Accrued Interest as of 12-31-14		38,088,113
Total 2014 Funds		**44,773,858**
2014 Expenses as of 12-31-14		(25,556,089)
Rider Transfer to PCA (IPUC Order 33049)		(20,000,000)
Ending Balance as of 12-31-2014	**$**	**(782,231)**
Oregon Energy Efficiency Rider		
2014 Beginning Balance	$	(3,694,183)
2014 Funding plus Accrued Interest as of 12-31-14		1,112,512
Total 2014 Funds		**(2,581,671)**
2014 Expenses as of 12-31-14		(1,325,865)
Ending Balance as of 12-31-2014	**$**	**(3,907,536)**
NEEA Payments		
2014 NEEA Payments as of 12-31-2014	$	3,305,917
Total	**$**	**3,305,917**

Appendix 2. 2014 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	$ 962,286	$ 56,988	$ 446,372	$ 1,465,646
Ductless Heat Pump Pilot	235,099	9,614	6,733	251,446
Energy Efficient Lighting	1,860,046	45,959	3,818	1,909,823
Energy House Calls	186,732	8,174	3,080	197,987
ENERGY STAR® Homes Northwest	330,523	7,612	5,141	343,277
Heating & Cooling Efficiency Program	340,551	14,627	6,836	362,014
Home Energy Audit	164,579	(248)	6,318	170,648
Home Improvement Program	315,616	0	9,101	324,717
Home Products Program	212,787	9,250	5,139	227,176
Oregon Residential Weatherization	0	5,234	228	5,462
Rebate Advantage	57,155	5,323	753	63,231
See ya later, refrigerator®	562,002	12,410	1,639	576,051
Shade Tree Program	143,750	66	3,474	147,290
Weatherization Assistance for Qualified Customers	0	0	1,320,112	1,320,112
Weatherization Solutions for Eligible Customers	757,748	0	33,596	791,344
Commercial/Industrial				
Building Efficiency	1,212,907	31,052	14,315	1,258,273
Custom Efficiency	6,705,219	418,537	49,299	7,173,054
Easy Upgrades	3,020,323	112,623	17,996	3,150,942
FlexPeak Management	50,964	78,131	1,434,116	1,563,211
Oregon Commercial Audit	0	9,464	0	9,464
Irrigation				
Irrigation Efficiency Rewards	2,256,235	144,392	45,880	2,446,507
Irrigation Peak Rewards	1,374,724	104,995	6,117,494	7,597,213
Energy Efficiency/Demand Response Total	**$ 20,749,245**	**$ 1,074,203**	**$ 9,531,441**	**$ 31,354,889**
Market Transformation				
NEEA	3,140,621	165,296	0	3,305,917
Market Transformation Total	**$ 3,140,621**	**$ 165,296**	**$ 0**	**$ 3,305,917**
Other Programs and Activities				
Residential				
Residential Energy Efficiency Education Initiative	394,895	14,844	13,352	423,091
Commercial/Industrial				
Commercial Education Initiative	72,613	3,829	163	76,606
Other				
Energy Efficient Direct Program Overhead	427,506	21,711	29,441	478,658
Local Energy Efficiency Funds	9,100	0	0	9,100
Other Programs and Activities Total	**$ 904,114**	**$ 40,384**	**$ 42,956**	**$ 987,455**
Indirect Program Expenses				
Commercial/Industrial Energy Efficient Overhead	75,578	6,209	40,612	122,399
Energy Efficient Accounting & Analysis	693,729	39,512	198,119	931,360
Energy Efficiency Advisory Group	5,702	301	0	6,003
Residential Energy Efficient Overhead	79,137	5,203	18,251	102,590
Special Accounting Entries	(92,037)	(5,242)	0	(97,280)
Indirect Program Expenses Total	**$ 762,109**	**$ 45,982**	**$ 256,982**	**$ 1,065,072**
Grand Total	**$ 25,556,089**	**$ 1,325,865**	**$ 9,831,379**	**$ 36,713,333**

Appendix 3. 2014 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]	29,642 homes	$ 1,465,646	$ 1,465,646	n/a	44	n/a	n/a	n/a
Irrigation Peak Rewards[1]	2,225 service points	7,597,213	7,597,213	n/a	295	n/a	n/a	n/a
FlexPeak Management[1]	93 sites	1,563,211	1,563,211	n/a	40	n/a	n/a	n/a
Total		**$ 10,626,070**	**$ 10,626,070**	**n/a**	**378**			
Energy Efficiency								
Residential								
Ductless Heat Pump Pilot	179 homes	251,446	884,211	462,747		15	$ 0.042	$ 0.148
Energy Efficient Lighting	1,161,553 bulbs	1,909,823	7,148,427	12,882,151		8	0.018	0.066
Energy House Calls	297 homes	197,987	197,987	579,126		18	0.024	0.024
ENERGY STAR® Homes Northwest	243 homes	343,277	689,021	332,682		36	0.055	0.111
ENERGY STAR® Homes Northwest (gas fuel)[2]	282 homes			195,372				
Heating & Cooling Efficiency Program	230 projects	362,014	1,247,560	1,099,464		20	0.022	0.075
Home Energy Audit (direct-install savings)[3]	354 audits			141,077				
Home Improvement Program	555 projects	324,717	896,246	838,929		45	0.020	0.055
Home Products Program	10,061 appliances/showerheads	227,176	302,289	652,129		12	0.031	0.041
Oregon Residential Weatherization	13 homes	5,462	9,723	11,032		30	0.028	0.050
Rebate Advantage	44 homes	63,231	89,699	269,643		25	0.014	0.020
See ya later, refrigerator®	3,194 refrigerators/freezers	576,051	576,051	1,390,760		6	0.062	0.062
Student Energy Efficiency Kits[4]	6,312 kits			1,491,225				0.225
Weatherization Assistance for Qualified Customers	255 homes/non-profits	1,320,112	1,997,108	1,327,171		25	0.149	0.225
Weatherization Solutions for Eligible Customers	118 homes	791,344	791,344	290,926		25	0.163	0.163
Sector Total		**$ 6,372,640**	**$ 14,829,666**	**21,171,063**		**11**	**$ 0.028**	**$ 0.065**
Commercial								
Building Efficiency	69 projects	1,258,273	3,972,822	9,458,059	1.2	12	0.012	0.037
Easy Upgrades	1,095 projects	3,150,942	5,453,380	19,118,494		12	0.015	0.025
Sector Total		**$ 4,409,215**	**$ 9,426,202**	**28,576,553**	**1.2**	**12**	**$ 0.014**	**$ 0.029**
Industrial								
Custom Efficiency[5]	131 projects	7,173,054	13,409,922	50,363,052	5.6	12	0.013	0.024
Sector Total		**$ 7,173,054**	**$13,409,922**	**50,363,052**	**5.6**	**12**	**$ 0.013**	**$ 0.024**

Appendix 3. 2014 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)
Irrigation								
Irrigation Efficiency Rewards[6]	1,128 projects	2,446,507	18,459,781	18,463,611	4.6	8	0.016	0.119
Sector Total		**$ 2,446,507**	**$ 18,459,781**	**18,463,611**	**4.6**	**8**	**$ 0.016**	**$ 0.119**
Energy Efficiency Portfolio Total		**$ 20,401,416**	**$ 56,125,571**	**118,574,278**		**11**	**$ 0.016**	**$ 0.044**
Market Transformation								
Northwest Energy Efficiency Alliance[7]		$ 3,305,917	$ 3,305,917	20,000,000				
Other Programs and Activities								
Residential								
Home Energy Audit		170,648	170,648					
Local Energy Efficiency Funds		9,100	9,100	95,834				
Residential Energy Efficiency Education Initiative		423,091	423,091					
Shade Tree Project		147,290	147,290					
Commercial								
Commercial Education Initiative		76,606	76,606					
Oregon Commercial Audits	16 audits	9,464	9,464					
Other								
Energy Efficiency Direct Program Overhead		478,658	478,658					
Total Program Direct Expense		**$ 35,648,260**	**$ 71,372,415**	**138,670,112**	**390**			
Indirect Program Expenses		$ 1,065,072						
Total DSM Expense		**$ 36,713,333**						

[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] Summer Peak Demand is reported where program MW reduction is calculated specifically by project. 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 gas-heated certified homes that were not provided a direct incentive payment by Idaho Power.
[3] Savings claimed for direct-install measures during home energy audits.
[4] Savings for energy kits provided as part of the Residential Energy Efficiency Education Initiative program.
[5] Custom Efficiency savings includes 15 Green Motors participants totaling 56,499 kWh of annual savings, not counted in project totals.
[6] Irrigation Efficiency includes 14 Green Motors participants totaling 35,083 kWh of annual savings, not counted in project totals.
[7] Savings are preliminary estimates. Final savings for 2014 will be provided by NEEA in June 2015.

Appendix 4. Historical DSM expense and performance, 2002–2014

Program/Year	Participants	Total Costs: Utility Cost[c]	Total Costs: Resource Cost[d]	Savings and Demand Reduction: Annual Energy (kWh)	Savings and Demand Reduction: Average Energy[e] (aMW)	Savings and Demand Reduction: Peak Demand[f] (MW)	Measure Life (Years)	Levelized Costs[a]: Total Utility ($/kWh)	Levelized Costs[a]: Total Resource ($/kWh)	Program Life Benefit/Cost Ratios[b]: Utility	Program Life Benefit/Cost Ratios[b]: 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			3.1					
2006	5,369	1,235,476	1,235,476			6.3					
2007	13,692	2,426,154	2,426,154			12.2					
2008	20,195	2,969,377	2,969,377			25.5					
2009	30,391	3,451,988	3,451,988			38.5					
2010	30,803	2,002,546	2,002,546			39.0					
2011	37,728	2,896,542	2,896,542			24.0					
2012	36,454	5,727,994	5,727,994			44.9					
2013	n/a	663,858	663,858			n/a					
2014	29,642	1,465,646	1,465,646			43.7					
Total		**$ 24,156,541**	**$ 24,156,540**								
FlexPeak Management											
2009	33	528,681	528,681			19.3					
2010	60	1,902,680	1,902,680			47.5					
2011	111	2,057,730	2,057,730			58.8					
2012	102	3,009,822	3,009,822			52.8					
2013	100	2,743,615	2,743,615			48.0					
2014	93	1,563,211	1,563,211			39.6					
Total		**$ 11,805,739**	**$ 11,805,739**								
Irrigation Peak Rewards											
2004	58	344,714	344,714			5.6					
2005	894	1,468,282	1,468,282			40.3					
2006	906	1,324,418	1,324,418			31.8					
2007	947	1,615,881	1,615,881			37.4					
2008	897	1,431,840	1,431,840			35.1					
2009	1,512	9,655,283	9,655,283			160.2					
2010	2,038	13,330,826	13,330,826			249.7					
2011	2,342	12,086,222	12,086,222			320.0					

Appendix 4. Historical DSM expense and performance, 2002–2014 (continued)

Program/Year	Participants	Total Costs: Utility Cost[c]	Total Costs: Resource Cost[d]	Savings and Demand Reduction: Annual Energy (kWh)	Savings and Demand Reduction: Average Energy[e] (aMW)	Savings and Demand Reduction: Peak Demand[f] (MW)	Measure Life (Years)	Levelized Costs[a]: Total Utility ($/kWh)	Levelized Costs[a]: Total Resource ($/kWh)	Program Life Benefit/Cost Ratios[b]: Utility	Program Life Benefit/Cost Ratios[b]: Total Resource
Demand Response											
Irrigation Peak Rewards											
2012	2,433	$ 12,423,364	$ 12,423,364			339.9					
2013	n/a	2,072,107	2,072,107			n/a					
2014	2,225	7,597,213	7,597,213			295.0					
Total		**$ 63,350,149**	**$ 63,350,149**								
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**	**2.52**	**0.76**
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		
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		
Total	**6,854,505**	**$ 12,326,880**	**$ 25,292,458**	**137,224,557**			**8**	**$ 0.013**	**$ 0.027**	**4.24**	**2.07**

Appendix 4. Historical DSM expense and performance, 2002–2014 (continued)

Program/Year	Participants	Total Costs: Utility Cost[c]	Total Costs: Resource Cost[d]	Savings and Demand Reduction: Annual Energy (kWh)	Savings and Demand Reduction: Average Energy[e] (aMW)	Savings and Demand Reduction: Peak Demand[f] (MW)	Measure Life (Years)	Levelized Costs[a]: Total Utility ($/kWh)	Levelized Costs[a]: Total Resource ($/kWh)	Program Life Benefit/Cost Ratios[b]: Utility	Program Life Benefit/Cost Ratios[b]: Total Resource
Residential Efficiency											
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	0.017	0.017		
2014	297	197,987	197,987	579,126	0.07		18	0.024	0.024		
Total	**10,779**	**$ 4,941,337**	**$ 4,941,337**	**13,064,406**			**18**	**$ 0.033**	**$ 0.033**	**2.31**	**2.31**
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		
Total	**3,572**	**$ 3,793,916**	**$ 6,030,020**	**6,080,207**			**36**	**$ 0.041**	**$ 0.065**	**2.35**	**1.48**
ENERGY STAR Homes Northwest (gas fuel)											
2014	282			195,372							
Total	**282**	**$ 0**	**$ 0**	**195,372**							

Appendix 4. Historical DSM expense and performance, 2002–2014 (continued)

Program/Year	Participants	Total Costs: Utility Cost[c]	Total Costs: Resource Cost[d]	Savings and Demand Reduction: Annual Energy (kWh)	Savings and Demand Reduction: Average Energy[e] (aMW)	Savings and Demand Reduction: Peak Demand[f] (MW)	Measure Life (Years)	Levelized Costs[a]: Total Utility ($/kWh)	Levelized Costs[a]: Total Resource ($/kWh)	Program Life Benefit/Cost Ratios[b]: Utility	Program Life Benefit/Cost Ratios[b]: Total Resource
Residential Efficiency											
Heating & Cooling Efficiency											
2006		$ 17,444	$ 17,444								
2007	4	488,211	494,989	1,595	0.00		18	$27.344	$27.710		
2008	359	473,551	599,771	561,440	0.06		18	0.073	0.092		
2009	349	478,373	764,671	1,274,829	0.15		18	0.034	0.054		
2010	217	327,669	1,073,604	1,104,497	0.13		20	0.025	0.083		
2011	130	195,770	614,523	733,405	0.08		20	0.018	0.056		
2012	141	182,281	676,530	688,855	0.08		20	0.018	0.066		
2013	210	329,674	741,586	1,003,730	0.11		20	0.022	0.050		
2014	230	362,014	1,247,560	1,099,464	0.13		20	0.022	0.075		
Total	**1,640**	**$ 2,854,988**	**$ 6,230,678**	**6,467,815**			**20**	**$ 0.036**	**$ 0.079**	**2.67**	**1.22**
Home Improvement Program											
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		
Total	**9,042**	**$ 3,064,656**	**$ 8,295,954**	**8,472,734**			**45**	**$ 0.023**	**$ 0.062**	**2.21**	**0.81**
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		
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		
Total	**85,279**	**$ 3,533,655**	**$ 5,691,019**	**7,533,890**			**12**	**$ 0.052**	**$ 0.083**	**1.71**	**1.06**

Appendix 4. Historical DSM expense and performance, 2002–2014 (continued)

Program/Year	Participants	Total Costs: Utility Cost[c]	Total Costs: Resource Cost[d]	Savings and Demand Reduction: Annual Energy (kWh)	Savings and Demand Reduction: Average Energy[e] (aMW)	Savings and Demand Reduction: Peak Demand[f] (MW)	Measure Life (Years)	Levelized Costs[a]: Total Utility ($/kWh)	Levelized Costs[a]: Total Resource ($/kWh)	Program Life Benefit/Cost Ratios[b]: Utility	Program Life Benefit/Cost Ratios[b]: Total Resource
Residential Efficiency											
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		
Total	**78**	**$ 56,004**	**$ 127,745**	**107,733**			**30**	**$ 0.036**	**$ 0.082**	**2.76**	**1.21**
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		
Total	**846**	**$ 672,200**	**$ 1,417,441**	**3,521,454**			**25**	**$ 0.014**	**$ 0.030**	**7.67**	**3.64**

Appendix 4. Historical DSM expense and performance, 2002–2014 (continued)

Program/Year	Participants	Total Costs: Utility Cost[c]	Total Costs: Resource Cost[d]	Savings and Demand Reduction: Annual Energy (kWh)	Savings and Demand Reduction: Average Energy[e] (aMW)	Savings and Demand Reduction: Peak Demand[f] (MW)	Measure Life (Years)	Levelized Costs[a]: Total Utility ($/kWh)	Levelized Costs[a]: Total Resource ($/kWh)	Program Life Benefit/Cost Ratios[b]: Utility	Program Life Benefit/Cost Ratios[b]: Total Resource
Residential Efficiency											
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	$576,051	576,051	1,390,760	0.16		6	0.062	0.062		
Total	**17,939**	**$ 3,303,124**	**$ 3,303,124**	**8,822,491**			**6**	**$ 0.069**	**$ 0.069**	**1.17**	**1.17**
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	$791,344	791,344	290,926	0.03		25	0.163	0.163		
Total	**646**	**$ 4,362,066**	**$ 4,362,066**	**2,589,410**			**25**	**$ 0.125**	**$ 0.125**	**0.76**	**0.76**
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		
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		

Appendix 4. Historical DSM expense and performance, 2002–2014 (continued)

Program/Year	Participants	Total Costs: Utility Cost[c]	Total Costs: Resource Cost[d]	Savings and Demand Reduction: Annual Energy (kWh)	Savings and Demand Reduction: Average Energy[e] (aMW)	Savings and Demand Reduction: Peak Demand[f] (MW)	Measure Life (Years)	Levelized Costs[a]: Total Utility ($/kWh)	Levelized Costs[a]: Total Resource ($/kWh)	Program Life Benefit/Cost Ratios[b]: Utility	Program Life Benefit/Cost Ratios[b]: Total Resource
Residential—Weatherization Assistance for Qualified Customers (WAQC)											
WAQC—Idaho											
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		
Total	**4,410**	**$ 14,158,439**	**$ 21,719,016**	**27,222,529**			**25**	**$ 0.039**	**$ 0.059**	**2.91**	**1.89**
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		
Total	**211**	**$ 531,360**	**$ 786,828**	**1,024,387**			**25**	**$ 0.038**	**$ 0.057**	**2.79**	**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**	**5.62**	**2.98**
WAQC—All Total		**$ 14,865,069**	**$ 22,836,035**	**28,907,773**			**25**	**$ 0.038**	**$ 0.059**	**2.93**	**1.91**
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**		

Appendix 4. Historical DSM expense and performance, 2002–2014 (continued)

Program/Year	Participants	Total Costs: Utility Cost[c]	Total Costs: Resource Cost[d]	Savings and Demand Reduction: Annual Energy (kWh)	Savings and Demand Reduction: Average Energy[e] (aMW)	Savings and Demand Reduction: Peak Demand[f] (MW)	Measure Life (Years)	Levelized Costs[a]: Total Utility ($/kWh)	Levelized Costs[a]: Total Resource ($/kWh)	Program Life Benefit/Cost Ratios[b]: Utility	Program Life Benefit/Cost Ratios[b]: Total Resource
Commercial											
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		
Total	**551**	**$ 10,807,051**	**$ 28,309,952**	**79,991,559**			**12**	**$ 0.015**	**$ 0.039**	**4.99**	**1.90**
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		
Total	**9,586**	**$ 27,615,440**	**$ 60,698,801**	**222,580,306**			**12**	**$ 0.014**	**$ 0.030**	**5.48**	**2.49**
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**	**2.85**	**1.48**

Appendix 4. Historical DSM expense and performance, 2002–2014 (continued)

Program/Year	Participants	Total Costs: Utility Cost[c]	Total Costs: Resource Cost[d]	Savings and Demand Reduction: Annual Energy (kWh)	Savings and Demand Reduction: Average Energy[e] (aMW)	Savings and Demand Reduction: Peak Demand[f] (MW)	Measure Life (Years)	Levelized Costs[a]: Total Utility ($/kWh)	Levelized Costs[a]: Total Resource ($/kWh)	Program Life Benefit/Cost Ratios[b]: Utility	Program Life Benefit/Cost Ratios[b]: Total Resource
Commercial											
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								
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								
Total	**188**	**$ 79,091**	**$ 83,091**								
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**		
Industrial											
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		
2014	131	7,173,054	13,409,922	50,363,052	5.75	5.6	12	0.013	0.024		
Total	**1,066**	**$ 50,429,705**	**$111,395,170**	**419,668,873**			**12**	**$ 0.013**	**$ 0.029**	**5.76**	**2.61**

Appendix 4. Historical DSM expense and performance, 2002–2014 (continued)

Program/Year	Participants	Total Costs: Utility Cost[c]	Total Costs: Resource Cost[d]	Savings and Demand Reduction: Annual Energy (kWh)	Savings and Demand Reduction: Average Energy[e] (aMW)	Savings and Demand Reduction: Peak Demand[f] (MW)	Measure Life (Years)	Levelized Costs[a]: Total Utility ($/kWh)	Levelized Costs[a]: Total Resource ($/kWh)	Program Life Benefit/Cost Ratios[b]: Utility	Program Life Benefit/Cost Ratios[b]: Total Resource
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	3.5	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		
Total	**7,960**	**$ 21,313,865**	**$ 96,439,079**	**130,586,841**			**8**	**$ 0.024**	**$ 0.108**	**4.65**	**1.54**
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								
Total		**$ 604,110**	**$ 604,110**								

Appendix 4. Historical DSM expense and performance, 2002–2014 (continued)

Program/Year	Participants	Total Costs: Utility Cost[c]	Total Costs: Resource Cost[d]	Savings and Demand Reduction: Annual Energy (kWh)	Savings and Demand Reduction: Average Energy[e] (aMW)	Savings and Demand Reduction: Peak Demand[f] (MW)	Measure Life (Years)	Levelized Costs[a]: Total Utility ($/kWh)	Levelized Costs[a]: Total Resource ($/kWh)	Program Life Benefit/Cost Ratios[b]: Utility	Program Life Benefit/Cost Ratios[b]: Total Resource
Other Programs											
Comprehensive Lighting											
2011		$ 2,404	$ 2,404								
2012		64,094	64,094								
Total		**$ 66,498**	**$ 66,498**								
Distribution Efficiency Initiative											
2005		21,552	43,969								
2006		24,306	24,306								
2007		8,987	8,987								
2008		(1,913)	(1,913)								
Total		**$ 52,932**	**$ 75,349**								
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								
Total		**$ 1,865,694**	**$ 1,865,694**								
Home Energy Audit											
2013		88,740	88,740								
2014	354	170,648	170,648	141,077							
Total	**354**	**$ 259,388**	**$ 259,388**	**141,077**							
Shade Tree											
2014	2,041	147,290	147,290								
Total	**2,041**	**$ 147,290**	**$ 147,290**								

Appendix 4. Historical DSM expense and performance, 2002–2014 (continued)

Program/Year	Participants	Total Costs: Utility Cost[c]	Total Costs: Resource Cost[d]	Savings and Demand Reduction: Annual Energy (kWh)	Savings and Demand Reduction: Average Energy[e] (aMW)	Savings and Demand Reduction: Peak Demand[f] (MW)	Measure Life (Years)	Levelized Costs[a]: Total Utility ($/kWh)	Levelized Costs[a]: Total Resource ($/kWh)	Program Life Benefit/Cost Ratios[b]: Utility	Program Life Benefit/Cost Ratios[b]: 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							
Total	**6,312**	**$ 1,804,527**	**$ 1,804,527**	**1,491,225**							
Solar 4R Schools											
2009		42,522	45,522								
Total		**$ 42,522**	**$ 45,522**								

Appendix 4. Historical DSM expense and performance, 2002–2014 (continued)

Program/Year	Participants	Total Costs: Utility Cost[c]	Total Costs: Resource Cost[d]	Savings and Demand Reduction: Annual Energy (kWh)	Savings and Demand Reduction: Average Energy[e] (aMW)	Savings and Demand Reduction: Peak Demand[f] (MW)	Measure Life (Years)	Levelized Costs[a]: Total Utility ($/kWh)	Levelized Costs[a]: Total Resource ($/kWh)	Program Life Benefit/Cost Ratios[b]: Utility	Program Life Benefit/Cost Ratios[b]: Total Resource
Other Programs											
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**	**2.71**	**1.78**
Market Transformation											
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	20,000,000	2.28						
Total		**$ 23,545,294**	**$ 23,545,294**	**235,193,011**							
Consumer Electronic Initiative											
2009		160,762	160,762								
Total		**$ 160,762**	**$ 160,762**								

Appendix 4. Historical DSM expense and performance, 2002–2014 (continued)

Program/Year	Participants	Total Costs: Utility Cost[c]	Total Costs: Resource Cost[d]	Savings and Demand Reduction: Annual Energy (kWh)	Savings and Demand Reduction: Average Energy[e] (aMW)	Savings and Demand Reduction: Peak Demand[f] (MW)	Measure Life (Years)	Levelized Costs[a]: Total Utility ($/kWh)	Levelized Costs[a]: Total Resource ($/kWh)	Program Life Benefit/Cost Ratios[b]: Utility	Program Life Benefit/Cost Ratios[b]: Total Resource
Annual Totals											
2002		$ 1,932,520	$ 2,366,591	16,791,100	1.92	0.0					
2003		2,566,228	3,125,572	18,654,343	2.12	0.0					
2004		3,827,213	4,860,912	19,202,780	2.19	6.6					
2005		6,523,348	10,383,577	37,978,035	4.34	44.3					
2006		11,174,181	20,950,110	67,026,303	7.65	44.4					
2007		14,896,816	27,123,018	91,145,357	10.40	58.5					
2008		20,213,216	44,775,829	128,508,579	14.67	74.9					
2009		33,821,062	53,090,852	143,146,365	16.34	235.5					
2010		44,643,541	68,981,324	193,592,637	22.10	357.7					
2011		44,877,117	79,436,532	183,476,312	20.94	419.6					
2012		47,991,350	77,336,341	172,054,327	19.64	453.6					
2013		26,100,091	54,803,353	109,505,690	12.23	54.5					
2014		35,648,260	71,372,414	138,670,112	15.60	389.7					
Total Direct Program		**$ 294,214,943**	**$518,606,427**	**1,319,751,941**							
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		$1,065,072									
Total		**$ 9,208,988**									

Appendix 4. Historical DSM expense and performance, 2002–2014 (continued)

		Total Costs		Savings and Demand Reduction			Measure Life (Years)	Levelized Costs[a]		Program Life Benefit/Cost Ratios[b]	
Program/Year	Participants	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									
Total 2002–2014		**$ 303,423,931**									

[a] Levelized Costs are based on financial inputs from Idaho Power's 2013 IRP 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 peak line losses.

[1] Savings are preliminary estimates. Final savings for 2014 will be provided by NEEA in June 2015.

Appendix 5. 2014 DSM program activity by state jurisdiction

Program	Idaho Participants	Idaho Utility Costs	Idaho Demand Reduction/ Annual Energy Savings	Oregon Participants	Oregon Utility Costs[a]	Oregon Demand Reduction/ Annual Energy Savings
Demand Response			**(MW)**			**(MW)**
A/C Cool Credit	29,239 homes	$ 1,408,658	43.0	403 homes	$ 56,988	0.6
Irrigation Peak Rewards	2,194 service points	7,490,394	293.4	31 service points	106,819	1.6
FlexPeak Management	35 sites	1,485,080	28.9	5 sites	78,131	10.7
Total		**$ 10,384,132**	**365.3**		**$ 241,938**	**12.9**
Energy Efficiency			**(kWh)**			**(kWh)**
Residential						
Ductless Heat Pump Pilot	174 homes	241,832	447,092	5 homes	9,614	15,655
Energy Efficient Lighting	1,128,724 bulbs	1,863,864	12,565,310	32,829 bulbs	45,959	316,841
Energy House Calls	282 homes	189,812	555,081	15 homes	8,174	24,045
ENERGY STAR® Homes Northwest	240 homes	335,665	322,980	3 homes	7,612	9,702
ENERGY STAR® Homes Northwest (gas fuel)	282 homes	0	195,372	0 homes	0	0
Heating & Cooling Efficiency Program	224 projects	347,387	1,067,900	6 projects	14,627	31,564
Home Energy Audit (direct install savings)	381 audits	0	141,077	0 audits	0	0
Home Improvement Program	555 projects	324,717	838,929	0 projects	0	0
Home Products Program	9,794 appliances/ showerheads	217,926	634,244	267 appliances/ showerheads	9,250	17,885
Oregon Residential Weatherization	0 home	0	0	13 home	5,462	11,032
Rebate Advantage	40 homes	57,907	245,109	4 homes	5,323	24,534
Student Energy Efficiency Kits	6,312 kits	0	1,491,225	0 kits	0	0
See ya later refrigerator®	3,138 refrigerators/ freezers	563,641	1,366,044	56 refrigerators/ freezers	12,410	24,716
Weatherization Assistance for Qualified Customers	244 homes/non-profits	1,267,212	509,620	11 homes/non-profits	52,900	24,180
Weatherization Solutions for Eligible Customers	118 homes	791,344	290,926	0 homes	0	0
Sector Total		**$ 6,201,308**	**20,670,908**		**$ 171,332**	**500,154**
Commercial						
Building Efficiency	66 projects	1,227,222	9,377,053	3 projects	31,052	81,005
Easy Upgrades	1,055 projects	3,038,319	18,709,206	40 projects	112,623	409,288
Sector Total		**$ 4,265,541**	**28,086,259**		**$ 143,674**	**490,293**
Industrial						
Custom Efficiency	122 projects	6,754,517	46,194,507	9 projects	418,537	4,168,545
Sector Total		**$ 6,754,517**	**46,194,507**		**$ 418,537**	**4,168,545**

Appendix 5. 2014 DSM program activity by state jurisdiction (continued)

	Idaho			Oregon		
Program	**Participants**	**Utility Costs**	**Demand Reduction/ Annual Energy Savings**	**Participants**	**Utility Costs[a]**	**Demand Reduction/ Annual Energy Savings**
Irrigation						
Irrigation Efficiency Rewards	1,093 projects	2,301,126	17,845,297	35 projects	145,381	618,314
Sector Total		**$ 2,301,126**	**17,845,297**		**$ 145,381**	**618,314**
Market Transformation						
Northwest Energy Efficiency Alliance[1]		3,140,621	19,000,000		165,296	1,000,000
Other Programs and Activities						
Residential						
Home Energy Audit		170,897			(248)	
Local Energy Efficiency Funds		9,100	95,834		0	
Residential Energy Efficiency Education Initiative		408,246			14,845	
Shade Tree Project		147,224			66	
Commercial						
Commercial Education Initiative		72,776			3,829	
Oregon Commercial Audits		0			9,464	
Other						
Energy Efficiency Direct Program Overhead		456,947			21,711	
Total Program Direct Expense		**$ 34,312,435**			**$ 1,335,825**	
Indirect Program Expenses		1,012,004			53,068	
Total Annual Savings			**131,892,805**			**6,777,306**
Total DSM Expense		**$ 35,324,439**			**$ 1,388,894**	

[a] Levelized Costs are based on financial inputs from Idaho Power's 2011 IRP and calculations include line loss adjusted energy savings.

[1] Savings are preliminary estimates. Final savings for 2014 will be provided by NEEA in June 2015.

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