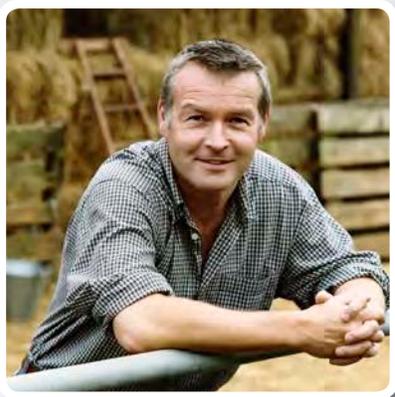


March 15, 2014

# Demand-Side Management

**2013  
ANNUAL  
REPORT**



## **SAFE HARBOR STATEMENT**

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

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## LIST OF SUPPLEMENTS

*Supplement 1: Cost-Effectiveness*

*Supplement 2: Evaluation*

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

## GLOSSARY OF ACRONYMS

aMW—Average Megawatt

A/C—Air Conditioning/Air Conditioners

ACB, Inc.—Advertising Checking Bureau, Inc.

ADM—ADM Associates, Inc.

AHAM—Association of Home Appliance Manufacturers

AIA—American Institute of Architects

AMI—Advanced Metering Infrastructure

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—Building Operator Certification

BOMA—Building Owners and Managers Association

BOP—Builder Option Package

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.

CBSA—Commercial Building Stock Assessment

CCLI—Comprehensive Commercial Lighting Initiative

CEE—Consortium of Energy Efficiency

CEI—Continuous Energy Improvement

CEL—Cost-Effective Limit

CER—Community Education Representative

CEU—Continuing Education Unit

CFL—Compact Fluorescent Lamp/Light

CHQ—Corporate Headquarters (Idaho Power)

CID—Certified Irrigation Designer  
CIS—Customer Information System  
CLRIS—Customer Load and Resource Information System  
COP—Coefficient of Performance  
CR—Customer Representative (field staff)  
CR&B—Customer Relations and Billing  
CR&EE—Customer Relations and Energy Efficiency Department  
CSR—Customer Service Representative (call center)  
CTR—Click-Through Rate  
DHP—Ductless Heat Pump  
DOE—Department of Energy  
DSM—Demand-Side Management  
EA4—EA4 Energy Audit Program  
EA5—EA5 Energy Audit Program  
EEAG—Energy Efficiency Advisory Group  
EISA—*Energy Independence and Security Act of 2007*  
ELCC—Effective Load Carrying Capacity  
EM&V—Evaluation, Measurement, and Verification  
ETO—Energy Trust of Oregon  
EPA—Environmental Protection Agency  
EUAT—Energy-Use Advisory Tool  
EUT—Energy Use Intensity  
F—Fahrenheit  
FCA—Fixed-Cost Adjustment  
FMP—Facility Management Professional  
ft<sup>2</sup>—Square Feet  
GIS—Geographic Information System  
GMPG—Green Motors Practice Group  
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

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  
IOER—Idaho Office of Energy Resources  
IPMVP—International Performance Measurement and Verification Protocol  
IPUC—Idaho Public Utilities Commission  
IRP—Integrated Resource Plan  
IRS—Internal Revenue Service  
iSTEM—Idaho Science, Technology, Engineering and Mathematics  
JACO—JACO Environmental, Inc.  
kWh—Kilowatt-hour  
LED—Light-Emitting Diode  
LEEF—Local Energy Efficiency Funds  
LIHEAP—Low Income Home Energy Assistance Program  
LMI—Last Measure In  
MCR—Major Customer Representative  
MEF—Modified Energy Factor  
MOU—Memorandum of Understanding  
MHAFB—Mountain Home Air Force Base  
MPER—Market Progress Evaluation Report  
MW—Megawatt  
MWh—Megawatt-hour  
MVBA—Magic Valley Builders Association  
NEB—Non-Energy Benefit  
NEEM—Northwest Energy Efficient Manufactured  
NEEA—Northwest Energy Efficiency Alliance  
NEF—National Energy Foundation  
NEMA—National Electrical Manufacturers Association  
NPCC—Northwest Power and Conservation Council  
NTG—Net to Gross  
NWRRC—Northwest Regional Retail Collaborative

O&M—Operation and Maintenance  
OHCS—Oregon Housing and Community Services  
OPUC—Public Utility Commission of Oregon  
OSV—On-Site Verification  
PCA—Power Cost Adjustment  
PCT—Participant Cost Test  
PE—Professional Engineer  
PLC—Power-Line Carrier  
PTCS—Performance Tested Comfort System  
QA—Quality Assurance  
QC—Quality Control  
QR—Quick Response  
RAP—Resource Action Programs  
R&D—Research and Development  
RBSA—Residential Building Stock Assessment  
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—Refrigerator Operator Coaching for Energy Efficiency  
RPAC—Regional Portfolio Advisory Committee  
RPP—Retail Products Platform  
RTF—Regional Technical Forum  
SCCT—Simple-Cycle Combustion Turbine  
SCE—Streamlined Custom Efficiency  
SCO—State-Certifying Organization  
SEE—Students for Energy Efficiency  
SEEK—Students for Energy Efficiency Kit  
SGIG—Smart Grid Investment Grant  
SIR—Savings-to-Investment Ratio  
SRVBCA—Snake River Valley Building Contractors Association  
T-5HO—T-5 High Output  
TOD—Time of Day  
TRC—Total Resource Cost

TRM—Technical Reference Manual

VFD—Variable-Frequency Drive

VRI—Variable-Rate Irrigation

VSI—Variable-Speed Irrigation

UC—Utility Cost

UES—Unit Energy Savings

US—United States

WAP—Weatherization Assistance Program

WAQC—Weatherization Assistance for Qualified Customers

WRUN—Western Regional Utility Network

WWECC—Wastewater Energy Efficiency Cohort

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## EXECUTIVE SUMMARY

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

In 2013, Idaho Power focused energy efficiency activities on program analysis, energy savings, demand reductions, and improvements to and the expansion of its current programs. Idaho Power worked with a multitude of stakeholders through an intense workshop process to chart a course for its demand response programs.

Idaho Power initiated four primary research/survey projects conducted by third-party contractors. The company partnered with the University of Idaho's Integrated Design Lab (IDL) in Boise. Idaho Power sponsored numerous activities under its commercial and residential customer education initiatives to improve customers' energy intelligence and to educate them about the company's energy efficiency programs. Idaho Power added new educational offerings to the Residential Energy Efficiency Education Initiative's lineup in 2013. The Shade Tree Project and the Student Energy Efficiency Kit (SEEK) Program were successfully implemented with positive participant feedback. The Home Energy Audit program was researched, designed, and prepared for implementation in January 2014. Additionally, the Customer Relations and Energy Efficiency (CR&EE) department contributed to the completion of the *2013 Integrated Resource Plan (IRP)*.

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 annual PCA, while Oregon demand response incentives are funded through the Oregon Rider. Total expenditures from all funding sources on demand-side management (DSM)-related activities decreased about 46 percent, from almost \$49.3 million in 2012 to \$26.8 million in 2013.

Though customer participation in several of the company's energy efficiency programs increased in 2013, Idaho Power's annual energy savings from its energy efficiency activities decreased in 2013. Reduced energy savings in 2013 were caused partially by Idaho Power's and the region's increased evaluation, measurement, and verification (EM&V) activities, which generally reduce savings estimates. From Idaho Power's energy efficiency programs alone (excluding Northwest Energy Efficiency Alliance [NEEA] savings), the savings decreased 42 percent, from 152,403 megawatt-hours (MWh) in 2012 to 88,938 MWh in 2013. Annual energy savings for 2012, including the revised NEEA savings, were 170,144 MWh. In 2013, these savings decreased to 107,284 MWh.

The *Demand-Side Management 2013 Annual Report* provides a review of the company's DSM activities and finances throughout 2013 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.

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## INTRODUCTION

Idaho Power's *Demand-Side Management 2013 Annual Report* provides a review of the financial and operational performance of Idaho Power's demand-side management (DSM) activities and initiatives for 2013. In 2013, Idaho Power offered energy efficiency programs to all customer sectors and offered a demand response program to the commercial/industrial sector. The company sponsored numerous activities under its customer education initiatives to improve customers' energy intelligence and to educate them about reducing their electricity consumption.

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 also 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.

2013 was a year of increased customer outreach, education, and marketing. Three new educational offerings were added to the Residential Energy Efficiency Education Initiative's lineup in 2013. The Shade Tree Project and the Student Energy Efficiency Kit (SEEK) program delivered 5,263 energy efficiency kits to 170 classrooms in 42 schools. Of the survey respondents, 100 percent of teachers indicated they would recommend the program to their colleagues and 99 percent of parents indicated they would like to see this program continued in local schools. The Shade Tree Project provided right-tree, right-place education and trees to 220 customers in nine communities. Using geographic information system (GIS)-based tools, participants were encouraged to plant their tree to maximize energy savings, generally on the west side of the home. The project was developed and implemented with a variety of partners, including the Arbor Day Foundation, municipal arborists, and the Idaho Nursery and Landscape Association. The Home Energy Audit program was researched, designed, and prepared for implementation in 2014.

In addition to the new program offerings, Idaho Power further supported its educational outreach by participating in 154 events, presentations, and trainings through the Customer Relations and Energy Efficiency (CR&EE) department and another 174 presentations given to community organizations by local customer representatives (CR). Community Education Representatives (CER) delivered an additional 80 energy efficiency-specific presentations to a total of 2,291 people. CERs and CRs joined forces to deliver 53 presentations to 1,235 senior citizens at local senior centers.

The initiative continued to respond to customer inquiries, provide tips for various media inquiries, and produce and distribute educational print media to promote behavioral change and increase customers' energy knowledge. Having distributed over 45,000 copies of *30 Simple Things You Can Do to Save Energy* between 2008 and mid-year 2013, this publication was updated and reprinted. Additionally, over 225,000 homes in communities across southern Idaho received both a *Spring/Summer Energy Efficiency Guide* and a *Fall/Winter Energy Efficiency Guide* containing timely, season-appropriate information and tips.

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 2013, 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.

The energy savings from Idaho Power's energy efficiency programs in 2013 were 88,938 megawatt-hours (MWh). In 2013, the amount of energy saved from its programs was enough to power more than 7,000 average homes served by Idaho Power for one year.

Demand reduction available from the FlexPeak Management program resulted in an estimated summer peak-reduction capacity of 48 megawatts (MW). The cost-effectiveness analysis of the only active Idaho Power demand response program in 2013 was cost effective over a five-year program life. Idaho Power's other two demand response programs, A/C Cool Credit and Irrigation Peak Rewards, were temporarily suspended in 2013.

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. Eighteen individual measures in various programs are shown not to be cost effective from a total resource cost (TRC) test perspective. The measures will be discontinued, analyzed for additional non-energy benefits (NEB), modified to increase potential per-unit savings, or monitored to examine their impact on the specific program's overall cost-effectiveness. In 2013, the company continued its commitment to third-party evaluation activities. Included in *Supplement 2: Evaluation* are copies of all of Idaho Power's 2013 evaluations, evaluations conducted by its regional partners, customer surveys and reports, Idaho Power's evaluation plans, general energy efficiency research, and demand response research. In 2013, most of Idaho Power's energy efficiency programs were cost-effective, except for the Ductless Heat Pump (DHP) Pilot, ENERGY STAR<sup>®</sup> Homes Northwest, and the weatherization programs for income-qualified customers.

## DSM Programs

The programs within Idaho Power's energy efficiency and demand response portfolio are offered to all major customer sectors: residential, commercial, industrial, and irrigation. The commercial and industrial energy efficiency programs are made available to customers in either sector.

Idaho Power groups its DSM activities into four 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 concerning the efficient use of electricity. These activities are coordinated to advance Idaho Power's continued commitment to pursue all cost-effective energy efficiency, all prudent demand response, and to enhance customer satisfaction.

Figures 1 through 4 show the demand-reduction capacity, historic energy savings, and DSM expenses.

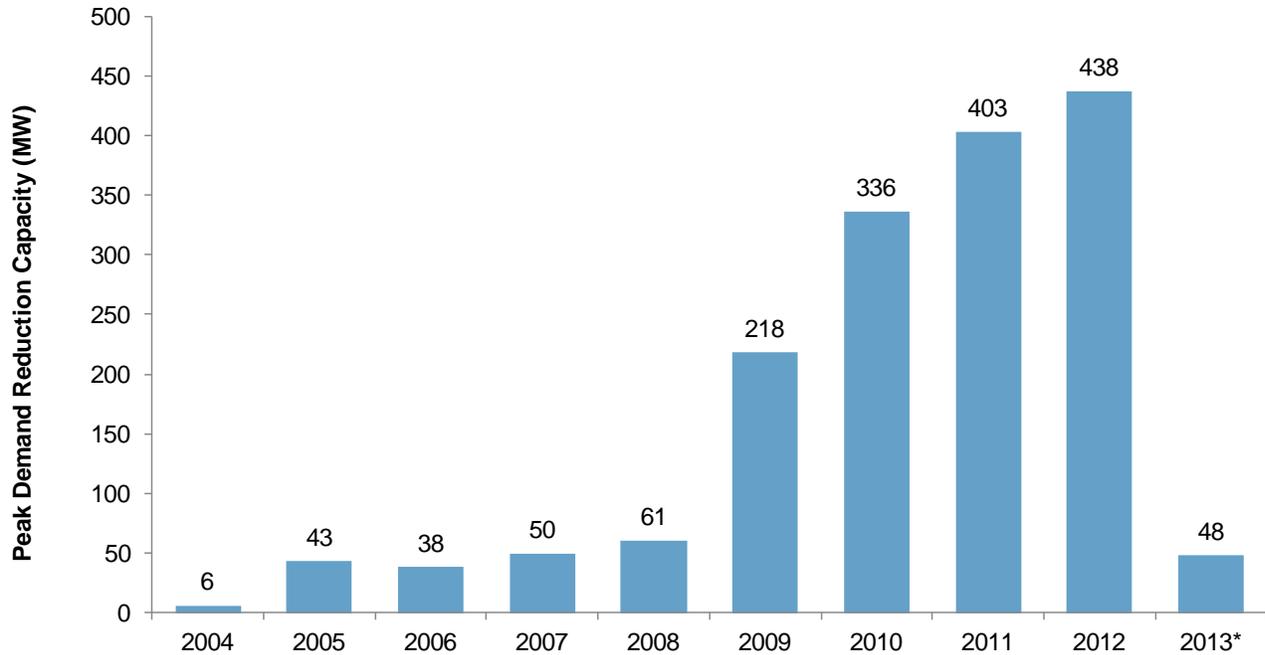


Figure 1. Peak demand-reduction capacity, 2004–2013 (MW)

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

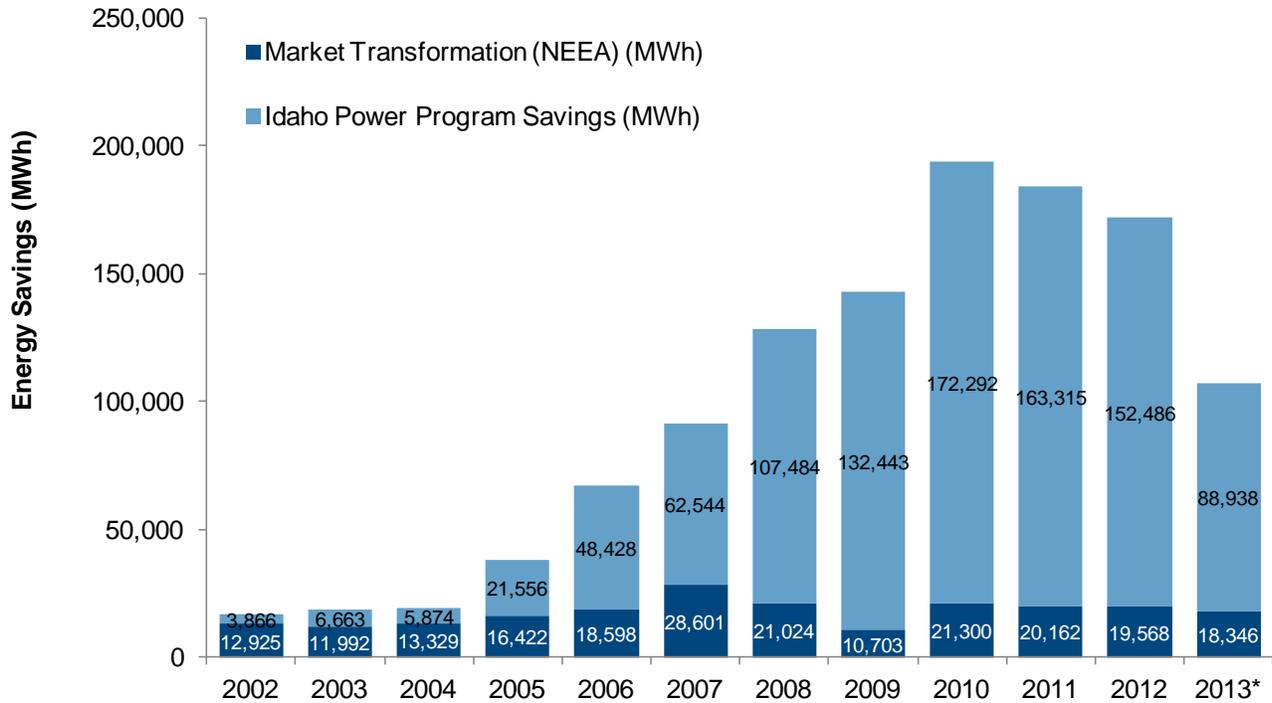


Figure 2. Annual energy savings, 2002–2013 (MWh)

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

Note: 2013 market-transformation savings (Northwest Energy Efficiency Alliance [NEEA]) are preliminary.

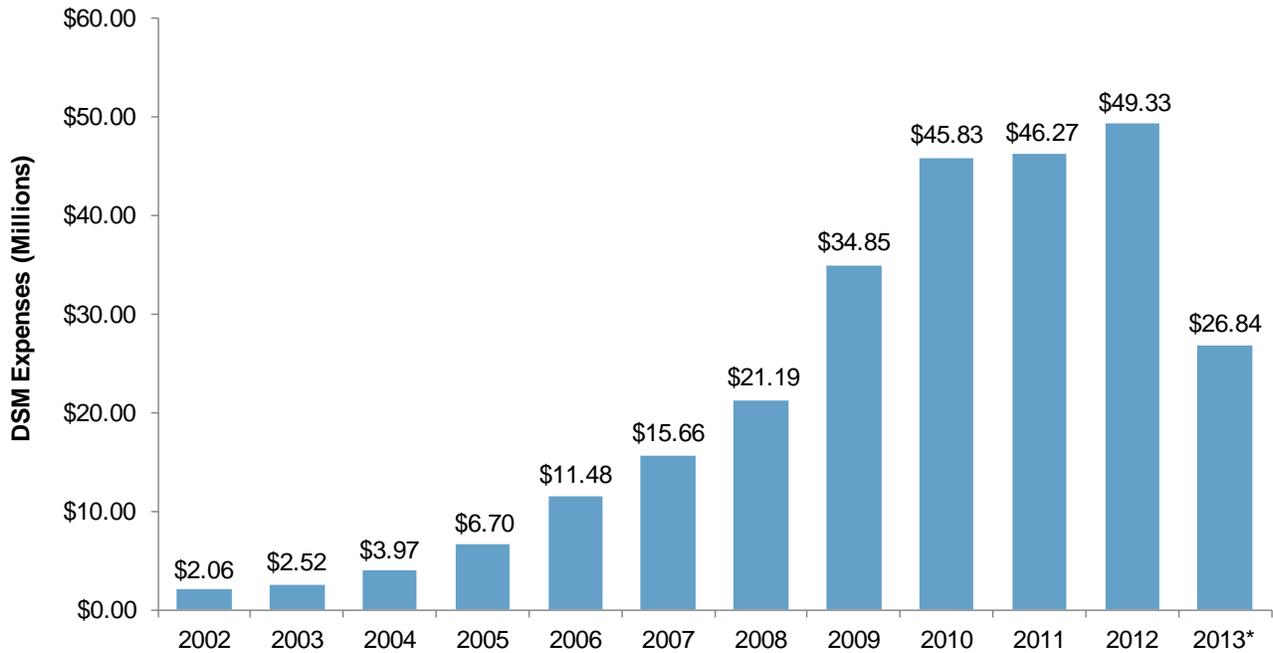


Figure 3. DSM expense history, 2002–2013 (millions of dollars)

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

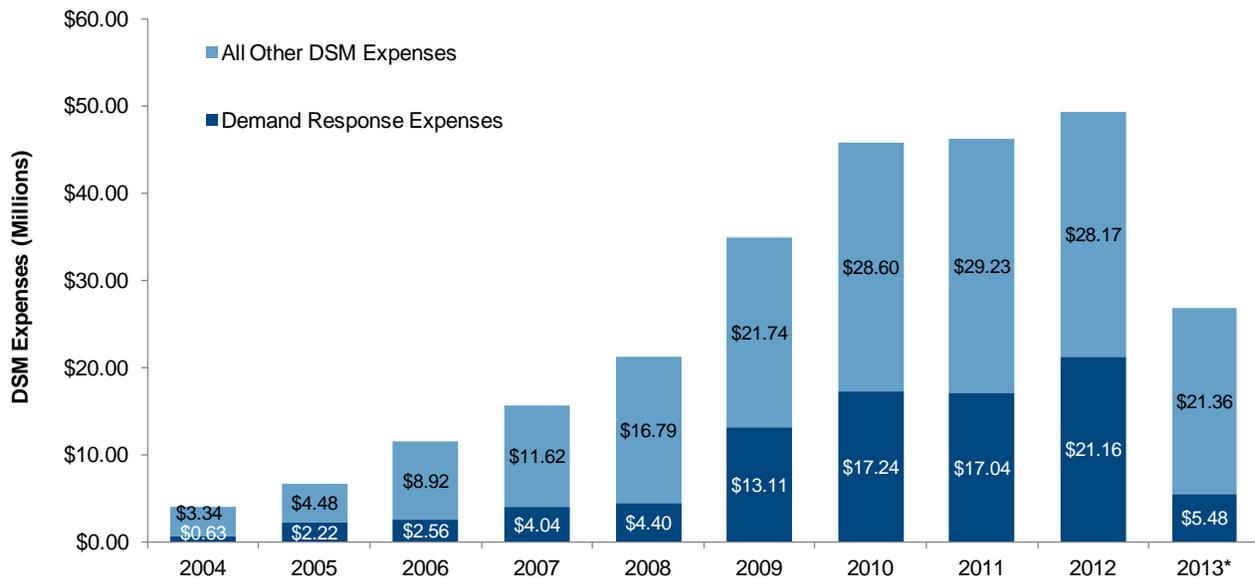


Figure 4. DSM expense history by program type, 2004–2013 (millions of dollars)

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

## *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 programs to mitigate any system peak deficits that exist. Demand response programs are measured by the amount of demand reduction, in MW, available to the company during system peak periods. In 2013, Idaho Power operated only one of its three demand response programs—the FlexPeak Management program. Idaho Power’s other two demand response programs, A/C Cool Credit and Irrigation Peak Rewards, were temporarily suspended in 2013.

In November 2012, the company’s IRP load and resource balance analysis indicated there were no capacity deficits in the near term. Based on the results of this analysis, on December 21, 2012, Idaho Power filed Case No. IPC-E-12-29 with the IPUC and on February 15, 2013, filed Tariff Advice No. 13-04 with the Public Utility Commission of Oregon (OPUC), requesting a temporary suspension of the A/C Cool Credit and Irrigation Peak Rewards programs, providing time for the company to work with stakeholders to evaluate future changes to all three of Idaho Power’s demand response programs. On February 14, 2013, Idaho Power, interveners, and the IPUC staff filed a proposed settlement with the IPUC. The parties agreed to suspend the A/C Cool Credit and Irrigation Peak Rewards programs for 2013 and asked the IPUC to schedule workshops to discuss further potential changes to the programs for 2014 and beyond. On April 2, 2013, the IPUC issued Order No. 32776 approving the settlement as filed. The OPUC approved the suspension of these programs through Tariff Advice No. 13-04 on April 23, 2013. Subsequently, Idaho Power temporarily suspended the A/C Cool Credit and Irrigation Peak Rewards programs and dispatched only the FlexPeak Management program in 2013.

The FlexPeak Management program was used three times during summer 2013. This program was used on July 1, 2, and 10. On Tuesday, July 2, Idaho Power hit a new system peak of 3,407 MW at 4:00 p.m. FlexPeak Management load reduction started at 4:00 p.m. and reduced the system peak by 41 MW, thus reducing what it would have been without demand response. The program’s maximum peak reduction at generation level was on July 10 with 48 MW of load reduction.

On June 21, 2013, the IPUC issued a notice of public workshops for Case No. IPC-E-13-14, the continuation of Idaho Power’s A/C Cool Credit, Irrigation Peak Rewards, and FlexPeak Management programs for 2014 and beyond. This notice set the dates for four workshops to be held at Idaho Power’s corporate headquarters (CHQ) on July 10, July 23, August 7, and August 19. The company and other stakeholders ultimately added a fifth workshop on August 27. In Oregon, Case No. 1653 was opened to track this case and allow parties from both jurisdictions to participate in the same workshops. Approximately 60 individuals from 21 organizations, including staff from the IPUC and OPUC, and 2 individual customers participated in the workshops. There were presentations by Idaho Power, commission staff, consultants, and Idaho Power contractors to share information about demand response at Idaho Power and across the US and Canada. At the August 27 workshop, settlement discussions were held that resulted in a settlement agreement amongst the parties. On October 2, 2013, Idaho Power filed a motion with the IPUC to approve the settlement agreement for the continuation of Idaho Power’s demand response programs. On November 12, 2013, the IPUC issued Order No. 32923 approving the settlement agreement. The order summarized the guiding concepts in the settlement that specified the company should do as follows:

1. Use the existing demand response resources when possible. This includes using, to the extent possible, demand response equipment owned or available to the company and participating demand response customers, which currently represent about 400 MW of potential demand response capacity.

2. Offer demand response for all three customer classes.
3. Keep costs as low as possible.
4. Re-evaluate the value calculation as the IRP changes.
5. Take a long-term outlook. To have viable demand response programs in the long-term, the programs must continue in the short-term.
6. Calculate avoided cost for demand response by using the avoided capacity cost of a 170-MW simple cycle combustion turbine (SCCT) multiplied by the effective load carrying capacity (ELCC), measured over 20 years, plus corresponding deferred energy savings for 60 program hours.
7. Strive for consistency in dispatch requirements across demand response programs.
8. Determine by the third quarter of 2014 whether it is feasible to use demand response as operating reserves and, if it is, the company will work with commission staff and stakeholders to develop a pilot program.

The order also addressed the specifics of each program. The details of the agreed on components of each program are included in the A/C Cool Credit, FlexPeak Management, and Irrigation Peak Rewards program sections of this report.

On October 9, 2013, Idaho Power attended a demand response settlement workshop at the OPUC for Case No. UM 1653 at which Idaho Power provided an overview of the workshops to Oregon parties who had not been able to attend the workshops. On December 19, 2013, the OPUC issued Order No. 13-482 approving the settlement agreement, which substantially mirrored the agreement made in Idaho.

## ***Energy Efficiency Programs***

Energy efficiency programs focus on reducing energy usage by identifying homes, buildings, equipment, or components where an energy-efficient design, replacement, or repair can achieve energy savings. These programs are available to all customer sectors in Idaho Power's service area. Project measures range from entire residential or commercial building construction to appliance 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. 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.

## ***Market Transformation***

Market transformation is a method of achieving 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).

## Other Programs and Activities

Idaho Power recognizes the value of energy efficiency awareness and education in creating behavior change and customer demand for, and satisfaction with, its programs and activities. The goal of other programs and activities is to promote energy efficiency programs, projects, and behavior to customers. These activities represent a range of projects and initiatives that include customer outreach, research, project development, and education programs. This category includes the Residential Energy Efficiency Education Initiative, Easy Savings Program, Commercial Educational Initiative, Local Energy Efficiency Funds (LEEF), SEEK program, and the Shade Tree Project.

Table 1 provides a list of DSM programs and their respective sectors, operational category, the state each was available in 2013, and associated energy savings.

Table 1. 2013 DSM, sectors, programs, operational type, and energy savings/demand reduction

Program by Sector	Operational Type	State	Savings/Demand Reduction
<b>Residential</b>			
A/C Cool Credit.....	Demand Response	ID/OR	suspended
Ductless Heat Pump Pilot.....	Energy Efficiency	ID/OR	589 MWh
Energy Efficient Lighting.....	Energy Efficiency	ID/OR	9,996 MWh
Energy House Calls.....	Energy Efficiency	ID/OR	837 MWh
ENERGY STAR® Homes Northwest.....	Energy Efficiency	ID/OR	365 MWh
Heating & Cooling Efficiency Program.....	Energy Efficiency	ID/OR	1,004 MWh
Home Energy Audit.....	Other Programs and Activities	ID	n/a
Home Improvement Program.....	Energy Efficiency	ID	616 MWh
Home Products Program.....	Energy Efficiency	ID/OR	886 MWh
Oregon Residential Weatherization.....	Energy Efficiency	OR	15 MWh
Rebate Advantage.....	Energy Efficiency	ID/OR	270 MWh
Residential Economizer.....	Other Programs and Activities	ID	n/a
Residential Energy Efficiency Education Initiative.....	Other Programs and Activities	ID/OR	n/a
See ya later, refrigerator®.....	Energy Efficiency	ID/OR	1,442 MWh
Shade Tree Project.....	Other Programs and Activities	ID	n/a
Weatherization Assistance for Qualified Customers.....	Energy Efficiency	ID/OR	682 MWh
Weatherization Solutions for Eligible Customers.....	Energy Efficiency	ID	303 MWh
<b>Commercial/Industrial</b>			
Building Efficiency.....	Energy Efficiency	ID/OR	10,989 MWh
Commercial Education Initiative.....	Other Programs and Activities	ID/OR	n/a
Custom Efficiency.....	Energy Efficiency	ID/OR	21,370 MWh
Easy Upgrades.....	Energy Efficiency	ID/OR	21,062 MWh
FlexPeak Management.....	Demand Response	ID/OR	48 MW
Oregon Commercial Audits.....	Other Programs and Activities	OR	n/a
<b>Irrigation</b>			
Irrigation Efficiency Rewards.....	Energy Efficiency	ID/OR	18,511 MWh
Irrigation Peak Rewards.....	Demand Response	ID/OR	suspended
<b>All Sectors</b>			
Northwest Energy Efficiency Alliance.....	Market Transformation	ID/OR	18,346 MWh

## Program Performance

In 2013, compared to 2012, participation increased for over half of Idaho Power's energy efficiency programs, and annual energy savings decreased. The saving difference varied by sector. The energy savings in 2013 for the residential sector decreased by 28 percent to 17,005 MWh. In 2013, commercial sector energy savings decreased by 48 percent to 32,051 MWh, and the industrial sector energy savings decreased by 61 percent to 21,370 MWh. Energy savings for the irrigation sector in 2013 increased by 47 percent to 18,511 MWh. The reduction in savings in the residential sector was due, in part, to new lower deemed-savings amounts approved by the Regional Technical Forum (RTF) and Idaho Power continuing to offer some programs only to customers with electrically heated homes. Some of the energy-savings reduction in the industrial sector is due to the natural ebb and flow of projects. Industrial projects can take years to complete, and the savings are recorded in the year a project is completed. Fewer projects were completed for the industrial sector in 2013. The decrease in the commercial sector was due to some of the same reasons as the industrial sector; however, in the commercial sector, some trade allies report that the improved economy decreases the amount of retrofit projects they were able and willing to pursue and complete, turning their attention instead to new construction projects. Additionally, the overall reduced energy savings in 2013 may be caused, in part, by Idaho Power's and the region's increased evaluation, measurement, and verification (EM&V) activities.

Customer participation remained fairly strong in most of the existing programs during the year although savings decreased. Over half of the residential program participation/projects increased. For example, in Energy Efficiency Lighting, the number of bulbs increased by 17 percent, while energy savings decreased by 40 percent. For other programs, both participation and energy increased, but the change was disproportionate. For example, for the DHP Pilot, the number of homes increased by almost 70 percent while the savings only increased by 33 percent.

For all of the commercial and industrial programs, both participation and savings decreased; however, the percent decrease in savings was disproportional to the decrease in projects. Building Efficiency, Easy Upgrades, and Custom Efficiency participation decreased by 30, 24, and 42 percent, respectively, while savings decreased by 46, 49, and 61 percent.

For the Irrigation Efficiency Rewards program, both project/measures and savings increased. Projects increased by about 10 percent while savings increased by 47 percent.

Table 2 shows the 2013 annual energy savings, percent of energy usage, number of customers, and average megawatt (aMW) savings associated with each of the DSM program categories. The table also provides a comparison of the 2013 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. 2013 program sector summary and energy usage/savings/demand reduction

	DSM Program Impacts <sup>a</sup>				Idaho Power System Sales		
	Program Expenses	Energy Savings (KWh)	Average Energy (aMW)	Peak Load Reduction (MW) <sup>b</sup>	Sector Total (MWh)	Percentage of Energy Usage	Number of Customers
Residential .....	\$ 7,164,231	17,005,274	1.9		5,333,937	37%	422,188
Commercial .....	7,610,440	32,050,880	3.7	49.1	3,971,451	27%	66,734
Industrial.....	2,466,225	21,370,350	2.4	2.4	3,180,385	22%	115
Irrigation .....	4,513,493	18,511,221	1.6	3.0	2,097,259	14%	19,398
Market Transformation.....	3,313,058	18,346,465	2.1	n/a		n/a	
Other Programs and Activities .....	1,032,644	0	0.0	n/a		n/a	
<b>Total Direct Program Expenses.....</b>	<b>\$ 26,100,089</b>	<b>107,284,190</b>	<b>12.0</b>	<b>54.5</b>	<b>14,583,032</b>	<b>100%</b>	<b>508,435</b>

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

<sup>b</sup> Includes peak load reduction from both demand response and energy efficiency programs.

## 2013 Activities

In 2013, Idaho Power continued to expand its customer outreach, education, and marketing activities. Many projects in 2013 revolved around evaluation and research to make DSM programs more effective and the savings gained from these programs more reliable.

Although not directly related to Idaho Power's DSM activities, the company has continued to install and configure its new Customer Information System (CIS), made possible under a matching grant from the Smart Grid Investment Grant (SGIG). The new system, called Customer Relationship and Billing (CR&B), went live September 1, 2013. This installation may affect some of the company's DSM program activities. Any program changes related to the company's billing system may not occur until the system is fully implemented.

Idaho Power continued its promotion of the Account Manager/Energy Use Advising Tool (EUAT) available to all residential, small commercial, and irrigation customers through Idaho Power's website. The EUAT is provided through Aclara's Energy Prism<sup>®</sup> application. Residential customers can complete a home profile for a detailed energy analysis and use a series of improvement calculators to assess areas for energy savings relative to lighting, heating, cooling, and appliances. This tool also allows customers to access their detailed advanced metering infrastructure (AMI) usage information via the internet, supporting better-informed decisions about their energy usage and related financial impacts. The tool also allows Customer Service representatives (CSR) to access detailed AMI usage information for each customer to help educate about how and when they use energy.

Idaho Power began its Shade Tree Project in fall 2013. Additionally, the company continued to fund and collaborate with the IDL and participate with NEEA's DHP Pilot.

During 2013, Idaho Power continued its contractual participation in NEEA under the 2011 to 2014 agreement. NEEA's efforts in the northwest impact Idaho Power's customers by encouraging regional market transformation. Idaho Power representatives participated in several NEEA committees and events.

Idaho Power also continued to help fund and participate in the RTF and used the results from the RTF's research in program development and cost-effectiveness analyses. Beginning in 2013, a representative from Idaho Power was a member of the RTF Policy Advisory Committee. This committee provides policy recommendations on how to best meet the needs of stakeholders while maintaining the

independent technical model of the RTF. Additionally, Idaho Power staff attended all meetings and participated in sub-committees.

On April 3, 2013, Idaho Power filed Case No. IPC-E-13-08, a request for the IPUC to designate Idaho Power's Idaho DSM expenditures of \$46,356,160 as prudently incurred expenses in 2012. This amount includes \$25,857,603 in Idaho Energy Efficiency Rider (Rider) expenses; \$6,019,109 in Custom Efficiency program incentive expenses; and \$14,479,447 in demand response program incentive expenses. The company included copies of the *Demand-Side Management 2012 Annual Report* along with *Supplement 1: Cost-Effectiveness* and *Supplement 2: Evaluation* in its filing. On December 20, 2013, the IPUC issued Order No. 32953 finding the company had prudently incurred \$46,092,747. The IPUC again declined to decide the reasonableness of Idaho Power labor-related expense increases for Rider-funded employees, which amounted to \$263,412 for both 2011 and 2012.

These prudency filings and Idaho Power's DSM activities are designed to comply with principles set forth in the MOU for Prudency Determination of DSM Expenditures.

## Energy Efficiency Advisory Group

Formed in 2002, the Energy Efficiency Advisory Group (EEAG) provides input on formulating and implementing energy efficiency and demand-reduction programs. Currently, the 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.

The EEAG met four times in 2013: February 7, May 23, September 18, and November 14. During these meetings, Idaho Power discussed and requested recommendations on new program 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. Idaho Power relies on input from the EEAG to provide a customer and public-interest review of energy efficiency and demand response programs and expenses. The minutes from the 2013 EEAG meetings are included in *Supplement 2: Evaluation*.

During the February 7 EEAG meeting, conservation voltage reduction was presented at the request of an EEAG member. At the May 23 meeting, Dr. Howard Neibling, Professional Engineer (PE), presented the findings of the research evaluation project done on sprinkler irrigation system components in southern Idaho. During the same meeting, a presentation of the non-participant survey results was given by Jenn Falco of Hansa GCR.

At the September 18 EEAG meeting, there was a roundtable discussion about emerging technologies, such as programmable smart thermostats, light-emitting diode (LED) lighting for residential applications, and behavioral based programs.

During the November 14 EEAG meeting, a discussion of the inputs and assumptions surrounding Idaho Power's cost-effective analyses was conducted, with several members suggesting how the company should address the issues surrounding the cost-effectiveness of measures and programs. A presentation of the Shade Tree Project was given to highlight the results of the events held at nurseries around the Treasure Valley.

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.

## Regulatory Initiatives

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 stakeholders and regulators through negotiations and filings, Idaho Power continues to pursue DSM regulatory treatment toward these goals.

Since 2002, Idaho Power has recovered most DSM program costs through the Idaho 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 has been included in base rates and tracked in the annual power cost adjustment (PCA) mechanism. Idaho Power makes annual filings to request a prudence determination of DSM expenses.

To address the removal of financial disincentives, Idaho Power has implemented a fixed-cost adjustment (FCA) mechanism for Idaho residential and small general-service customers. This annual mechanism is designed 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 energy sales. This mechanism removes the financial disincentive that exists when Idaho Power promotes energy efficiency resources designed to reduce customer usage.

Idaho Power does not receive direct financial benefits attributable to accomplishments in DSM activity.

## DSM Expenditures

Funding for DSM programs in 2013 came from several sources. The Idaho and Oregon Rider funds are collected directly from customers on their monthly bills. For 2013, the Idaho Rider was 4 percent of base-rate revenues. The 2013 Oregon Rider was 3 percent of base-rate revenues. Beginning in 2011, Idaho Power was allowed to account for incentives paid through the Custom Efficiency program as a regulatory asset in Idaho. In 2013, Idaho Power filed a request with the IPUC to fund all Idaho Custom Efficiency incentives through the Idaho Rider. This included the transfer of incentives previously capitalized to the Regulatory Asset account from January 2011 to May 2013 to the Idaho Rider. This was approved by the IPUC per Order No. 32826 in June 2013. Additionally, Idaho related demand response program incentives and program continuity payments were paid through the 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 \$26.8 million in 2013. At the beginning of 2013, the Idaho Rider balance was about \$4 million, and by December 31, 2013, the balance was \$6.7 million. At the beginning of the year, the Oregon Rider negative balance was approximately \$3.9 million, and by year-end, the negative balance was \$3.7 million.

Table 3 shows the total expenditures funded by the Idaho Rider, \$34,468,123; the Oregon Rider, \$915,540; and non-rider funding, -\$8,542,284, resulting in Idaho Power's total DSM expenditures of \$26,841,379. The non-rider funding category includes Idaho Power demand response incentives, O&M costs, and an offsetting accounting entry reflecting a one-time transfer of -\$14.2 million related to Idaho Custom Efficiency incentive payments for 2011 through May 2013 per IPUC Order No. 32826.

Table 3. 2013 funding source and energy impact

Funding Source	Expenses	MWh Savings
Idaho Rider.....	\$ 34,468,123	104,417
Oregon Rider.....	915,540	2,186
Non-Rider Funding.....	(8,542,284)	682
<b>Total.....</b>	<b>\$ 26,841,379</b>	<b>107,284</b>

Table 4 and Figure 5 indicate 2013 DSM program expenditures by category. The expenses in the Other Expense category include marketing (\$463,000), program evaluation (\$643,000), program training (\$396,000), and offsetting accounting entries of approximately \$1.6 million related to the reduction of carrying charges from the Regulatory Asset account and the reduction in the amount of labor charged to the Idaho Rider for 2011 to 2013. The Purchased Services category includes payments made to NEEA and third-party contractors who help deliver Idaho Power's programs, EnerNOC, Inc., for FlexPeak Management and Irrigation Peak Rewards; JACO Environmental, Inc. (JACO), for See ya later, refrigerator<sup>®</sup>; Honeywell for A/C Cool Credit; Evergreen Consulting for Easy Upgrades; and contractors for Weatherization Assistance for Qualified Customers (WAQC) and Weatherization Solutions for Eligible Customers.

Table 4. 2013 DSM program expenditure by category

	Total	% of Total
Incentive Expense.....	\$ 14,169,299	53%
Labor/Administrative Expense.....	3,188,324	12%
Materials & Equipment.....	10,458	0%
Other Expense.....	155,250	1%
Purchased Services.....	9,318,047	35%
<b>Total 2013 Rider Expenditures by Category.....</b>	<b>\$ 26,841,379</b>	<b>100%</b>

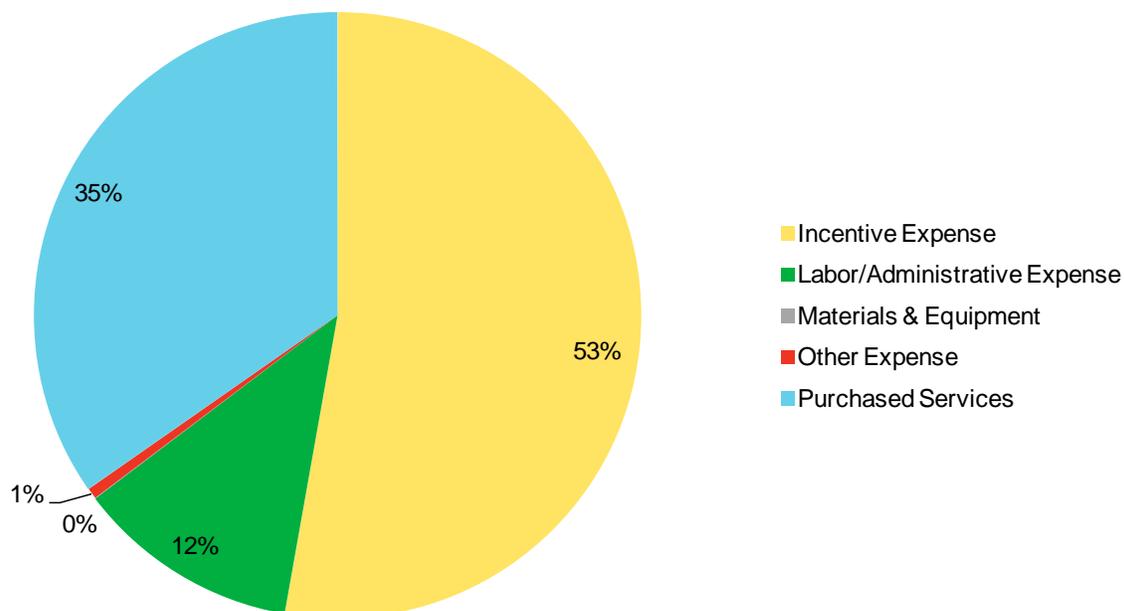


Figure 5. 2013 DSM program expenditures by category

Table 5 and Figure 6 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 listed are funded by the Idaho Rider, 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 program are not included in the incentive amounts.

Table 5. 2013 DSM program incentives by segment and sector

	Sector Total	% of Total
DR <sup>a</sup> —Residential* .....	\$ 98,381	1%
DR—Commercial/Industrial .....	2,629,041	19%
DR—Irrigation* .....	1,617,272	11%
EE <sup>b</sup> —Irrigation.....	1,976,640	14%
EE—Residential .....	2,002,446	14%
EE—Commercial/Industrial .....	5,845,519	41%
<b>Total Incentive Expense</b> .....	<b>\$ 14,169,299</b>	<b>100%</b>

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

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

\* In 2013, continuity payments for the AC/Cool Credit and Irrigation Peak Rewards programs are included in the DR incentive totals.

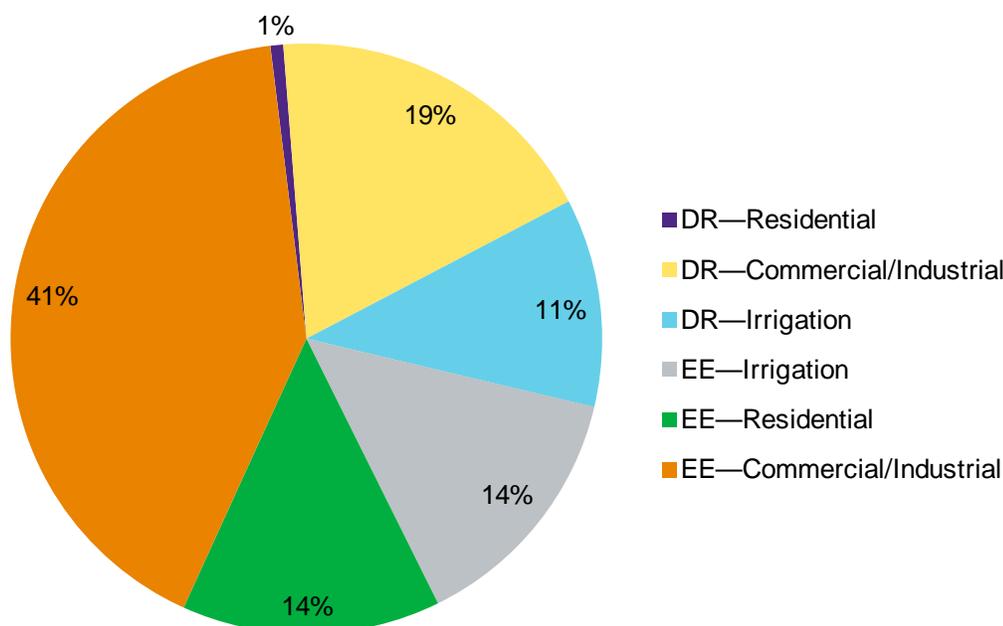


Figure 6. 2013 DSM program incentives by segment and sector

## Marketing

For Idaho Power to spend customer dollars wisely, new marketing tactics are tested on a small scale to determine their effectiveness prior to making a larger investment. This approach was taken in 2013 as online advertising became a larger part of the company's marketing mix. Working with an outside vendor, online (digital) targeted/behavioral advertisements were produced and distributed through

advertising networks. The advertising network used by Idaho Power's vendor targeted 41,000 websites. Specific customer segments were shown Idaho Power advertisements based on customers' past behavior on the Internet. For example, if a customer within Idaho Power's specific geographic area had visited a site about heat pumps or home improvement, an Idaho Power advertisement for DHPs would appear on subsequent webpages, having been programmed to follow that particular user as they navigate through the Internet. Audience targeting puts Idaho Power marketing messages in front of the people the company most wants to reach and at a time they are most receptive.

In 2013, the Home Improvement Program, DHP Pilot, and Home Products Program all had two- to three-month targeted online campaigns. All of the digital advertisements performed well, with the click-through rate (CTR) for all programs above the industry average. Digital advertisements will continue to be used in 2014.

As part of an integrated Home Improvement Program campaign, the company included a Facebook advertisement along with a direct mail letter, bill inserts, print advertisements, and retail signage. It was the first time Facebook advertisements were used to promote an Idaho Power energy efficiency program, and the results were above industry standards. This campaign targeted 520,000 people living in Idaho Power's Idaho service area (this program is not offered in Oregon). Of those targeted, 211,998 unique visitors interacted with the advertisement in some way (viewed it, clicked it, or went to the website). The number of people who viewed the Home Improvement Program page more than quadrupled in the first two to three weeks of the campaign.

Due in part to the success of these Facebook advertisements, energy efficiency tabs were added to Idaho Power's Facebook page. These tabs provide more exposure to the suite of energy efficiency programs in a social media format.

Idaho Power marketing staff presented an overview of 2013 to 2014 marketing activities to EEAG at the November 2013 EEAG meeting. The company feels it is important that EEAG members have an understanding of how the energy efficiency programs are marketed and to hear EEAG's ideas.

*Connections*, Idaho Power's monthly customer newsletter, is distributed in customers' bills and is available online at <https://www.idahopower.com/ServiceBilling/Billing/BillInserts/default.cfm>. In 2013, two editions were devoted exclusively to energy efficiency content. The company plans to continue using this format in the foreseeable future.

A number of marketing projects begun in 2013 will continue through 2014, including a focus on providing the tools contractors need to promote Idaho Power's energy efficiency programs to their customers. After interviewing heating, ventilation, and air conditioning (HVAC) and insulation contractors, Idaho Power has moved forward with the creation of a contractor portal. The intent of the portal is to provide marketing materials, such as door hangers, flyers, and scripts for radio spots, through a portal for contractors on Idaho Power's website. The pieces are written and designed by Idaho Power to conform to brand guidelines while also allowing individual contractors to customize marketing materials with their own business name, physical address, email address, and logo. Having these types of customized materials available will make promoting programs easier for Idaho Power contractors, which may lead to higher participation rates. The information will be accurate, and contractors will be spared the expense of hiring graphic designers and the time involved by going through Idaho Power's approval process.

Secondary research shows people who buy an older home are most likely to remodel and make upgrades to the home in the first two years of ownership than any other time. To take advantage of this

opportunity, a postcard for newly purchased homes was created to remind customers about Idaho Power's energy efficiency programs. Postcards were sent to customers within six months of moving into a new residence. This mailing was started in 2013 and will continue in 2014.

In 2013, Idaho Power's marketing team, web team, and program specialists began evaluating the company's energy efficiency webpages and determining where there are opportunities for improvement. As this project moves forward in 2014, the scope will be refined, usability testing will be conducted, and decisions made on how to proceed with changes. The ultimate goal is for customers and contractors to find relevant information easily and quickly. Additionally, Idaho Power is subscribing to J.D. Power and Associates 2014 website evaluation study to be released in mid-March 2014. In addition to other transaction-oriented questions, the survey asks customers to evaluate the accessibility and clarity of information, such as tips to save energy.

To support energy efficiency in the commercial sector, Idaho Power began working with NEEA, BOMA of Boise, and the IDL in spring 2013 to launch the Kilowatt Crackdown™ competition for commercial office buildings that highlights energy-saving opportunities. Regular conference calls with energy coaches and stakeholders kept the competition on track. Competition winners will be awarded at a BOMA event in spring 2014.

A new advertising channel for energy efficiency programs in 2014 is the *Yahoo! Bing Network*. This channel provides an opportunity to reach targeted customers Idaho Power cannot reach with other search engines. In the US, the Yahoo! Bing Network accounts for 29 percent of the online search share. With categories including Green, Small Business, Small Business Advisor, Homes, and News, Idaho Power will target users with messages tailored specifically to them.

Idaho Power sponsors a number of events targeted toward commercial and residential customers. The company is a platinum sponsor of the 2014 BOMA symposium. This event is attended by approximately 500 business owners, property managers, and developers. As a platinum sponsor, Idaho Power will produce a video highlighting the participants of the Kilowatt Crackdown. In addition, the company will have a print advertisement in the program brochure as well as editorial copy.

Working in conjunction with an outside vendor, a commercial video will be produced highlighting two to three businesses that have made energy efficiency upgrades. The businesses will be of various sizes and geographically dispersed across the Idaho Power service area. Customer interviews will also be included. Once the video is produced, it will be posted on Idaho Power's commercial program website as well as on Idaho Power's YouTube Channel.

Customers also have 24-hour access to their account information on the Idaho Power website by registering to be an Account Manager. The customers have choices about how to do business with Idaho Power, learn about their energy use with data from their smart meters, and consider options for participating in a broad range of programs.

Two integrated marketing campaigns promoting all the energy efficiency programs will take place in 2014. In addition to promoting programs individually, these campaigns will help to address survey feedback that customers are not aware Idaho Power offers energy efficiency programs. Marketing channels will include bill inserts, online advertisements, an article in the energy efficiency *Connections* edition, print advertisements, and an advertisement on Idaho Public Television.

To understand how Idaho Power customers respond to Idaho Power messaging and program names, a focus group is planned to gather qualitative data to help inform future marketing decisions.

## Program Evaluation

Idaho Power considers program evaluation an essential component of its demand-side-management 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 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 RTF's 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 2013, Idaho Power completed six program process evaluations and one program impact evaluation using third-party contractors. TRC Energy Services conducted process evaluations for the Heating & Cooling Efficiency (H&CE) Program, ENERGY STAR Homes Northwest program, and Energy Efficient Lighting program. The Johnson Consulting Group performed process evaluations for the WAQC and Weatherization Solutions for Eligible Customers programs. Opinion Dynamics Corporation provided a process evaluation of the Easy Upgrades program, and ADM Associates, Inc. (ADM), provided an impact evaluation for the Irrigation Efficiency Rewards program.

In 2013, Idaho Power contracted with Hansa GCR to conduct a non-participant survey for the residential, commercial/industrial, and irrigation sectors. Also in 2013, the company selected Market Decisions Corporation Research to conduct customer research for the Custom Efficiency program and ADM to produce a technical reference manual (TRM) for the Easy Upgrades and Building Efficiency programs. The non-participant survey results are included in the *Supplement 2: Evaluation*. The Custom Efficiency, Easy Upgrades, and Building Efficiency projects will be completed in early 2014.

Final reports from all evaluations, research, and surveys completed in 2013 and an evaluation schedule are provided in *Supplement 2: Evaluation*.

## Customer Satisfaction

In 2013, based on surveys conducted in 2012, Idaho Power ranked fourth out of nine utilities included in the west region: midsize segment of the J.D. Power and Associates *2013 Electric Utility Business Customer Satisfaction Study*. Fifty-five 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 2013, based on surveys conducted in the last six months of 2012 and the first six months of 2013, Idaho Power ranked fifth out of the 12 utilities included in the west region: midsize segment of the J.D. Power and Associates *2013 Electric Utility Residential Customer Satisfaction Study*. Fifty 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 almost twenty-two percent.

Since 1995, Idaho Power has employed an independent third-party research vendor to conduct customer relationship surveys to measure the overall customer relationship and satisfaction with Idaho Power. The 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, the intent of this survey is not to measure all aspects of energy efficiency programs offered by Idaho Power.

The 2013 results of Idaho Power's quarterly customer relationship survey showed a slight decrease in overall satisfaction from the previous year. Customers' perception of Idaho Power's energy efficiency efforts decreased from 60 percent at the end of 2012 to 57 percent in late 2013. Figure 7 depicts the quarterly change in the number of customers who indicated Idaho Power met or exceeded their needs concerning energy efficiency efforts encouraged by Idaho Power.

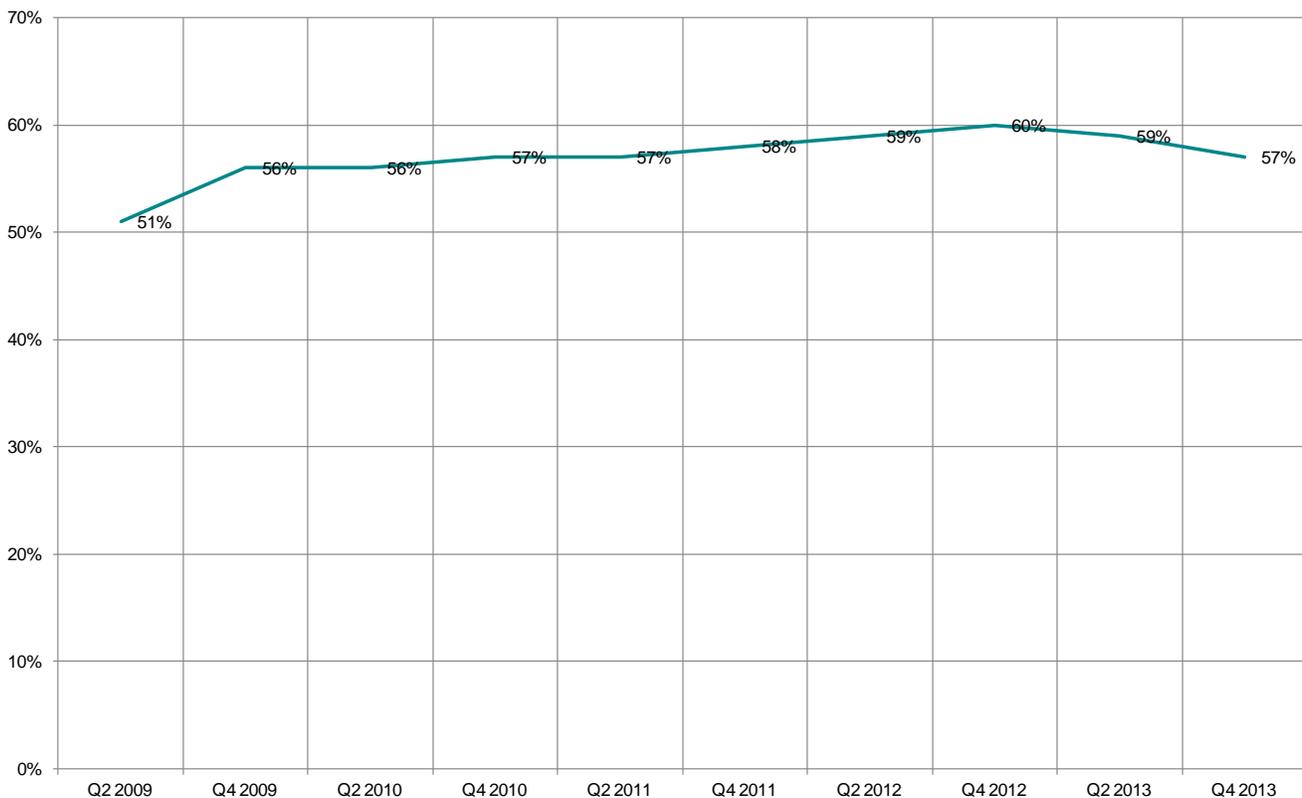


Figure 7. Percent of customers whose needs are met or exceeded by Idaho Power's energy efficiency efforts

Three questions related to energy efficiency programs in the general relationship survey continued in the 2013 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 2013, overall, 36 percent of the survey respondents across all sectors indicated they have participated in at least one Idaho Power energy efficiency program. Of survey respondents who have participated in at least one Idaho Power energy efficiency program, 91 percent are "very" or "somewhat" satisfied with the program.

Qualitative research for the Custom Efficiency program began in late 2013. This research involved one-on-one interviews with program participants based on the nature of the equipment installed and the industry. In addition, one-on-one interviews with eligible business customers that have not yet participated in the Custom Efficiency program began in early 2014. Comprehensive results of all findings related to the Custom Efficiency program research will be delivered later in the first quarter of 2014.

Due to a concern of over-surveying program participants or "survey fatigue," and because the measures and specifics of most program designs do not change annually, Idaho Power has determined it is in the best interest of customers and program operations not to survey most program participants annually. To ensure meaningful research in the future, Idaho Power has determined that program research will be done periodically (every two to three years), unless there have been major program changes.

## Cost-Effectiveness

Idaho Power considers cost-effectiveness of primary importance in the design, implementation, and tracking of energy efficiency and demand response programs. In the past, most of Idaho Power's energy efficiency and demand response programs were preliminarily identified through the IRP process. Because of Idaho Power's diversified portfolio of programs, in the 2011 IRP, 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. The process in the IRP remains the same for determining if measures should be adopted as it was for program inclusion. Specific cost-effective programs or energy-saving measures are screened by sector to determine if the levelized cost of these programs or measures is less than supply-side resource alternatives. If they are shown to be less costly than supply-side resources from a levelized-cost perspective, the hourly shaped energy savings is subsequently included in the IRP as a resource.

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 various 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, utility cost (UC) test, and participant cost test (PCT) at the program level and the measure level where appropriate. An exception to the measure level cost-effectiveness is when there is interaction between measures. Idaho Power may launch 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 2013. 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 done in 2012, the actual historic savings and expenses were 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*.

No cost-effectiveness analyses were performed on the A/C Cool Credit and Irrigation Peak Rewards programs for 2013. In Case No. IPC-E-12-29, the company filed a settlement stipulation with the IPUC on February 14, 2013. In the stipulation, the parties recognized the need for the company to incur certain program expenses in 2013 to maintain the programs' infrastructure for the long-term, though it may not be cost-effective by traditional standards. The IPUC approved the settlement stipulation in Order No. 32776 on April 2, 2013. Under a contract amendment with EnerNOC, the FlexPeak Management program operated in 2013 at a reduced cost. The program was shown to be cost effective from a one-year and a five-year program-life perspective. As part of the public workshops on Case No. IPC-E-13-14, Idaho Power and other stakeholders agreed on a new methodology for valuing demand-response. The settlement agreement was approved in IPUC Order No. 32923 on November 12, 2013. The new method will be applied to the cost-effectiveness models for all demand response programs in 2014.

In 2013, most of Idaho Power's energy efficiency programs were cost effective, except for the DHP Pilot, ENERGY STAR Homes Northwest, and the weatherization programs for income-qualified customers. Eighteen individual measures in various programs are shown not to be cost effective from a TRC test perspective. The measures will either be discontinued, analyzed for additional NEBs, modified to increase potential per-unit savings, or monitored to examine its impact on the specific program's overall cost-effectiveness.

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

## **Future Plans**

The forecast level of energy efficiency and the needed level of demand response are included in Idaho Power's biennial IRP planning process. The IRP is a public document 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 2014, 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, such as efficient measures for multiple family dwellings. The company will modify programs and measures and update energy savings and cost data to ensure all programs remain cost effective. With the filing and acknowledgement of the 2013 IRP, Idaho Power will have a new set of commission acknowledged-DSM alternative costs to analyze its energy efficiency programs. The company will conduct research and analyses to determine the effects of these new costs on the cost-effectiveness of its programs. Additionally, the company will complete its research and EM&V projects included in the evaluation plan in *Supplement 2: Evaluation*.

## ***DSM Annual Report Structure***

The structure of Idaho Power's *Demand-Side Management 2013 Annual Report* remains mostly unchanged from the 2012 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 2013 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 2013 and 2012 program metrics in tabular format, followed by a general description, 2013 activities, cost-effectiveness, customer satisfaction/evaluation, and 2014 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 2013 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 2011, Idaho Power is using the alternate DSM costs and other financial inputs from Idaho Power's 2011 IRP. These inputs are used in cost-effective analyses for 2011 and forward.

*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.

## RESIDENTIAL SECTOR OVERVIEW

### Description

At the end of 2013, Idaho Power was serving 508,432 customers with a total population area of a little over one million people. Of the overall customer count, the company had 422,188 residential customers in its Idaho and Oregon service areas. Positive economic trends continued in the company's region, with 6,168 new residential customers added. This was an increase of 36 percent over the 4,533 new residential customers in 2012 and a 225 percent increase over 2011, when 2,733 new residential customers were added. This positive trend points toward an improved economic climate in Idaho. Better economic conditions led to more housing starts in the company's service area. It is important, however, to keep this growth rate in perspective. At the high point in 2006, Idaho Power was adding over 15,000 residential customers per year.

In 2013, the residential segment represented 83 percent of Idaho Power's customer base and 37 percent of total electricity usage. Idaho Power and its customers set a new system summer peak record on Tuesday, July 2, 2013, with customers using 3,407 MW at 4:00 p.m. The City of Boise experienced a high temperature that day of 105 degrees Fahrenheit (F). The previous system peak of 3,245 MW occurred on July 12, 2012, also at 4 p.m. The company and its customers had a winter peak of 2,482 MW on December 9, 2013, at 8:00 a.m., which is lower than the 2,528 MW winter peak recorded on Thursday, December 10, 2009, at 8:00 a.m. Total electricity usage and associated sales to residential customers increased by 5.6 percent, but when weather normalized, the segment actually experienced a decrease of 1.2 percent.

Idaho Power and its CR&EE employees continued education and promotion of energy efficiency programs and information to all residential customers. These tasks and activities contributed to increased energy efficiency program participation.

Table 6 shows a summary of 2013 participants, costs, and savings from the residential energy efficiency programs.

## Programs

Table 6. 2013 residential program summary

Program	Participants	Total Cost		Savings	
		Utility	Resource	Annual Energy (kWh)	Peak Demand (MW)
<b>Demand Response</b>					
A/C Cool Credit.....	suspended in 2013	\$ 663,858	\$ 663,858	n/a	suspended
<b>Total</b> .....		<b>\$ 663,858</b>	<b>\$ 663,858</b>		<b>n/a</b>
<b>Energy Efficiency</b>					
Ductless Heat Pump Pilot.....	215 homes	237,575	992,440	589,142	
Energy Efficient Lighting .....	1,083,906 bulbs	1,356,926	4,889,501	9,995,753	
Energy House Calls .....	411 homes	199,995	199,995	837,261	
ENERGY STAR® Homes Northwest.....	267 homes	352,882	697,682	365,370	
Heating & Cooling Efficiency Program.....	210 projects	329,674	741,586	1,003,730	
Home Improvement Program .....	365 homes	299,497	1,061,314	616,044	
Home Products Program.....	13,792 appliances/ showerheads	405,515	702,536	885,980	
Oregon Residential Weatherization .....	14 homes	9,017	14,369	14,907	
Rebate Advantage .....	42 homes	60,770	92,690	269,891	
See ya later, refrigerator® .....	3,307 refrigerators/freezers	589,054	589,054	1,442,344	
Weatherization Assistance for Qualified Customers .....	254 homes/non-profits	1,391,677	2,052,020	681,736	
Weatherization Solutions for Eligible Customers .....	166 homes	1,267,791	1,267,791	303,116	
<b>Total</b> .....		<b>\$ 6,500,373</b>	<b>\$ 13,300,978</b>	<b>17,005,274</b>	

## Notes:

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

Programs available to residential customers in 2013 included 12 energy efficiency programs, the Residential Energy Efficiency Educational Initiative, and the Easy Savings Program.

A demonstration shade-tree project was an addition in 2013. Residential efficiency programs include 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; and See ya later, refrigerator®.

Idaho Power markets its residential energy efficiency programs through many promotional methods including, but not limited to, online advertising, print advertisements, radio and television commercials, media and public relations, billboards, retail events, customer visits, participation in home and garden shows, remodeling events, and county fairs.

Bill communication included monthly bill inserts and messages, as well as articles in the *Connections* customer newsletter on the following: See ya later, refrigerator®, Home Improvement Program, DHP Pilot and Energy Efficient Lighting (January); Easy Upgrades, FlexPeak Management, and energy-saving measures at Idaho Power (February); *Spring Energy Efficiency Guide* (March); tips to save energy related to high bills (April); weatherization partnerships (May); energy efficiency issues (July); Building Efficiency (October); and Energy Awareness Art Contest—Ways to Save Energy and *Winter Energy Efficiency Guide* (December).

Presentations to community groups and businesses continued to be a major emphasis during 2013. Idaho Power customer and CERs made hundreds of presentations in communities served by the company.

The Home Energy Audit program will launch during the first half of 2014, with a goal to complete 300 energy audits in 2014. Although Idaho Power planned to launch the program in 2013, the launch was slightly delayed due to challenges with Idaho Power's new CIS installation.

The Home Energy Audit program is based on the 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. The new Home Energy Audit program will be similar to the Boise City Home Audit project in that it will include a professional, in-home energy audit with blower door test and installation of select energy-saving measures. The select low-cost energy-saving measures for each home include the installation of up to 20 compact fluorescent lights (CFL), the insulation of water pipes that are three feet or less between the water heater and the home, and the installation of one high-efficiency showerhead.

To qualify for this program, participants must live in Idaho and be an Idaho Power customer of record for the home. The home must be an existing all-electric, site-built home. Renters may participate with prior-written landlord permission. Single-family homes, duplexes, triplexes and fourplexes qualify. Manufactured homes, new construction, or buildings with more than four units do not qualify. Multifamily homes heated by a central heating unit or that aren't separately metered are not eligible.

Participating customers will 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 will be approximately \$84.

Customers can sign up for an audit and receive their completed audit online. Homeowners will receive a personalized report and information on programs that could assist them with the costs of implementing additional measures.

In 2013, Idaho Power distributed 220 shade trees to residential customers through the Shade Tree Project. Using results from a state-sponsored urban tree-canopy study and online planting resources developed by the Arbor Day Foundation, the Shade Tree Project encouraged the strategic planting of trees to reduce residential energy use.

The Shade Tree Project was open to residential customers living in Ada and Canyon counties. To enroll, customers accessed an online 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. Participants picked up their tree at one of four events in the Treasure Valley. At these events, participants received additional education on where to plant trees for maximum energy savings and other tree care guidance from local arborists. Also, Treasure Valley media covered a press event held at a local school where students learned how to plant shade trees from Idaho Power arborists.

The project's enrollment tool and the project's implementation methods are being reviewed for possible project expansion in 2014.

Idaho Power conducts the Burke Customer Relationship survey each year. This survey showed 52 percent of residential survey respondents in 2013 indicated Idaho Power is meeting or exceeding their needs with information on how to use energy wisely and efficiently.

Fifty-five percent of residential respondents indicated Idaho Power is meeting or exceeding their needs by encouraging energy efficiency with its customers. While 37 percent of Idaho Power residential customers surveyed in 2013 indicated Idaho Power is meeting or exceeding their needs in offering energy efficiency programs, 27 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, 82 percent are “very” or “somewhat” satisfied with the program.

In 2013, Hansa GCR conducted a phone survey of non-participants of the Idaho Power residential energy efficiency programs. The purpose of the study was to gain a better understanding of why customers do not participate in energy efficiency programs and how best to increase program participation. A total of 622 residential customers were interviewed. Of the non-participants surveyed, 60 percent were unaware of Idaho Power’s energy efficiency programs. However, when asked how important it is that Idaho Power offer energy efficiency programs on a 0 to 10 scale, 73 percent of respondents indicated importance was high with a rating between 8 and 10. The non-participants were also asked how likely they were to participate in an energy efficiency program on a 0 to 10 scale. Respondents’ likelihood to participate was relatively low, with 36 percent giving a rank between 0 and 3. Forty-four percent gave a mid-range ranking between 4 and 7. When asked what their most preferred method of communication was, 48 percent of respondents preferred bill inserts.

Customers completed a paired comparisons exercise to evaluate the relative importance of potential barriers and motivators for participation. Fifty-two percent of non-participants ranked unfamiliarity with the programs as the biggest barrier to participation. Fifty-four percent of non-participants ranked lower energy costs as the biggest motivator to participation. Results of the non-participant survey can be found in *Supplement 2: Evaluation*.

## A/C Cool Credit

	2013	2012
<b>Participation and Savings</b>		
Participants (participants)	n/a	36,454
Energy Savings (kWh)	n/a	n/a
Demand Reduction (MW)	n/a	44.9
<b>Program Costs by Funding Source</b>		
Idaho Energy Efficiency Rider	\$537,163	\$4,804,566
Oregon Energy Efficiency Rider	\$29,731	\$92,810
Idaho Power Funds	\$96,964	\$830,618
Total Program Costs—All Sources	\$663,858	\$5,727,994
<b>Program Levelized Costs</b>		
Utility Levelized Cost (\$/kWh)	n/a	n/a
Total Resource Levelized Cost (\$/kWh)	n/a	n/a
<b>Program Life Benefit/Cost Ratios</b>		
Utility Benefit/Cost Ratio	n/a	
Total Resource Benefit/Cost Ratio	n/a	
<b>Program Characteristics</b>		
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 peaking requirements during times when summer peak load is high.

Historically, Idaho Power could cycle participants' A/C for up to 40 hours each month in June, July, and August. In return, participants received a \$7 per-month credit on their Idaho Power bill during July, August, and September.

Customers' A/C units are controlled using two types of switches that communicate by either power-line carrier (PLC) or radio-paging signals. A switch is installed on each customer's A/C unit and allows Idaho Power to cycle the customer's A/C during a cycling event. AMI switches use PLC communication, which provides the communication backbone for these switches. Since the implementation of Idaho Power's AMI project, the company installed the AMI switches wherever possible on new A/C Cool Credit participants' A/C units in an effort to eliminate the use of radio-paging signal switches. Idaho Power is in the process of replacing all radio-paging switches with AMI switches.

## 2013 Activities

In 2012, Idaho Power filed IPUC Case No. IPC-E-12-29 requesting authority to temporarily suspend the program due to the load and resource balance analysis from the 2013 IRP planning process showing there were no near-term peak-hour deficits. As part of this temporary suspension, the replacement of

existing radio-paging switches with AMI switches was also suspended in December 2012. Marketing efforts ceased, and no new participants were accepted. A letter communicating this filing to request a temporary suspension was sent to participants in late December 2012. As part of the temporary program suspension in 2013, customers received a continuity incentive payment in order to maintain a high level of participation in the future.

A series of workshops were held during 2013 to determine how the company's three demand response programs should operate in the future. A detailed description of the workshops and outcomes is located in the Introduction section of this *Demand-Side Management 2013 Annual Report*.

Because the A/C Cool Credit program was suspended in 2013, activities were limited to customer communication, the demand response workshops, and related work to support the stakeholder process.

### Cost-Effectiveness

No cost-effectiveness analysis was performed on the program for 2013 due to the temporary suspension of the program. In case IPC-E-12-29, the company filed a settlement stipulation with the IPUC, which was approved on April 2, 2013. In the stipulation, the parties recognized the need for the company to incur reasonable program expenses in 2013 to maintain the program's infrastructure and the long-term viability of the program though it may not be cost-effective by traditional standards. The IPUC approved the settlement stipulation in Order No. 32776 on April 2, 2013.

### 2014 Strategies

As a result of settlement agreements reached in Case No. IPC-E-13-14 and UM 1653, A/C Cool Credit will again be offered as a demand response program with modifications. In 2014, the program will be available to reduce energy demand during critical summer peak periods. As before, the program will not run on weekends or holidays, and the maximum length of an event remains at four hours.

To create consistency among Idaho Power's demand response programs, the new program design reduces the cycling season from June 1 through August 31 to June 15 through August 15. The maximum number of cycling hours available per season is reduced from 120 hours to 60 hours. There will now be a minimum of three cycling events per season, and the incentive will be reduced from \$21 per season to \$15 per season. This will be paid as a bill credit of \$5 on the July, August, and September bills. Table 7 compares the 2014 and 2012 A/C Cool Credit program parameters.

Table 7. Comparison of 2014 and 2012 A/C Cool Credit program

	2014 Program	2012 Program
<b>Season</b>	June 15–August 15	June 1–August 31
<b>Maximum hours per season</b>	60 hours	120 hours
<b>Minimum number of cycling events</b>	3	0
<b>Number of opt-outs<sup>a</sup></b>	2 times per season	3 times, once per month
<b>Program incentive</b>	\$5 in July, August, and September, totaling \$15 bill credit per season	\$7 in July, August, and September, totaling \$21 bill credit per season

<sup>a</sup> Participants must notify Idaho Power in advance.

Current program participants will be notified of the program changes in a letter sent in early January 2014. Idaho Power will contact and attempt to recruit customers who move into a home that

already has a load-control device installed. Idaho Power will also attempt to recruit participants who change residences to a location that does not have a load-control device. Idaho Power will replace all paging devices installed at current participants' residences with AMI-compatible devices with the goal of completing replacement in time for the 2014 program season. The company will not remove an A/C Cool Credit load-control device unless a customer requests it be removed.

Idaho Power will not actively promote the A/C Cool Credit program to solicit new participants through marketing tactics but will accept new participants in this program who request to participate, regardless of whether they were previously participants in the program.

## Ductless Heat Pump Pilot

	2013	2012
<b>Participation and Savings</b>		
Participants (homes)	215	127
Energy Savings (kWh)	589,142	444,500
Demand Reduction (MW)	n/a	n/a
<b>Program Costs by Funding Source</b>		
Idaho Energy Efficiency Rider	\$230,761	\$153,017
Oregon Energy Efficiency Rider	\$6,814	\$6,850
Idaho Power Funds	\$0	\$0
Total Program Costs—All Sources	\$237,575	\$159,867
<b>Program Levelized Costs</b>		
Utility Levelized Cost (\$/kWh)	\$0.032	\$0.024
Total Resource Levelized Cost (\$/kWh)	\$0.132	\$0.094
<b>Program Life Benefit/Cost Ratios</b>		
Utility Benefit/Cost Ratio	3.13	
Total Resource Benefit/Cost Ratio	0.96	
<b>Program Characteristics</b>		
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 2013. 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 2013, 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 the majority 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 behavior 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 2013. A billing analysis report was published in 2013 by NEEA. NEEA plans to complete a cost-effectiveness report and a final summary report in 2014.

Details about the regional DHP effort can be found at the project website at [www.goingductless.com](http://www.goingductless.com) and [www.neea.org](http://www.neea.org).

## 2013 Activities

Knowing contractors are a vital marketing asset, contractor visits were made in the first half of 2013 to better understand how Idaho Power can support participating contractors in promoting the DHP Pilot, as well as the H&CE Program. Specifically, Idaho Power discussed developing a contractor portal housed on Idaho Power's website. The portal will provide contractors with access to predesigned and approved marketing collateral materials. These materials will include specific text boxes contractors can customize with their own business name, address, logo, and phone number.

Information about the DHP Pilot is also contained in the postcard for newly purchased homes that was initiated in 2013 and mailed to customers who have purchased a home that is new to them.

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 11 DHP Pilot orientation training sessions to participating and prospective contractors. Expansion strategies resulted in the addition of 10 companies to the list of participating contractors (15-percent increase).

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. The program specialist 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.

Idaho Power and other northwestern utilities participated in a 2013 NEEA-sponsored marketing campaign for DHPs conducted during the summer and fall. Residents in the Idaho Power service area were targeted for the campaign using radio, television, and social-media website advertisements.

## Cost-Effectiveness

In fall 2013, the RTF reaffirmed approved annual-savings estimates for zonal electrically heated homes as proven unit energy savings (UES) values. The qualifying unit should be installed consistent with the pilot guidelines, including at least one ton of heating capacity and using an inverted driven compressor. The savings were approved with a sunset date of March 31, 2014, because the RTF only approved savings for customers not screened for supplemental fuel use. The RTF was unable to approve savings in situations where customers are fully screened for the use of wood heat. The pilot billing analysis showed there were lower savings in colder climates for customers that reported large amounts of wood heat prior to the installation of the DHP. One behavior detected by customers through interviews was the increased comfort and high efficiency of the DHP led to the customer displacing a portion of their previous wood heat with increased or "taken back" use of electricity. The resulting billing analysis of wood-burning customers shows minimal savings or an increased use of electricity from the pre-installation period. This led to the formation of a sub-committee to address the DHP supplemental fuel screen issue, including the possible inclusion of NEBs for reduced wood purchases and decreased wood-burning emissions. After the sub-committee completes its recommendations, the RTF will consider a proposal for UES estimates for wood screening. As a consequence of the supplemental fuel issue, DHPs installed in Idaho Power's colder climate zones, such as McCall and Sun Valley, can only be credited with 292 annual kWh of savings, which is not cost-effective, especially absent of any

regional guidance on potential NEBs. In the other climate zones, the RTF savings ranged between 2,600 to 3,100 kWh. After the RTF final review, Idaho Power will explore making program changes in consultation with EEAG to account for wood use.

Participant costs for the TRC estimate were calculated by averaging one-unit installations that occurred in Idaho Power's service area in 2013. The average installation cost was \$4,261, which held steady from 2012 values. 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 2013 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 2013, NEEA provided one report to update the DHP Pilot. The following is a highlight of that report.

### NEEA Report 13-262, released August 2013

During the pilot period between 2008 and 2009, 3,899 DHPs were installed in the region. This report presents the findings of the overall energy usage from 3,621 of the installations based on the analysis of the participants' billing records. The objectives of this analysis were to estimate space-heating energy savings, identify the determinants of savings, assess the impact of supplemental fuels, and establish net electric savings from DHP installations across the region. A copy of the NEEA report is included on the CD accompanying *Supplement 2: Evaluation*.

## 2014 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 2014. The program specialist, along with Idaho Power CRs, will arrange these meetings.

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, the program specialist will meet with the wholesalers and share information.

New and traditional marketing methods will be used in 2014 to reach the target audience. Launch of the contractor portal will take place in 2014. Once contractors have a chance to use the portal, Idaho Power will ask for their feedback regarding possible areas of improvement. As necessary, Idaho Power will also continue to populate the portal with new marketing materials as the year progresses. Also planned for 2014 are online behavioral advertisements. Specific customer segments will be shown Idaho Power advertisements based on their past behavior on the Internet. For example, if a customer within

Idaho Power's specific geographic area had visited a site about heat pumps or home improvement, an Idaho Power advertisement for DHPs would appear on subsequent webpages, having been programmed to follow that particular user as they navigate through the Internet. Additional tactics include social media, print advertisements placed in publications that have a higher rate of electrically heated homes, direct-mail letters and postcards, and possible changes to the DHP Pilot webpages.

## Energy Efficient Lighting

	2013	2012
<b>Participation and Savings</b>		
Participants (bulbs)	1,083,906	925,460
Energy Savings (kWh)	9,995,753	16,708,659
Demand Reduction (MW)	n/a	n/a
<b>Program Costs by Funding Source</b>		
Idaho Energy Efficiency Rider	\$1,331,113	\$1,110,329
Oregon Energy Efficiency Rider	\$25,812	\$16,507
Idaho Power Funds	\$0	\$0
Total Program Costs—All Sources	\$1,356,926	\$1,126,836
<b>Program Levelized Costs</b>		
Utility Levelized Cost (\$/kWh)	\$0.016	\$0.012
Total Resource Levelized Cost (\$/kWh)	\$0.058	\$0.025
<b>Program Life Benefit/Cost Ratios</b>		
Utility Benefit/Cost Ratio	7.27	
Total Resource Benefit/Cost Ratio	4.18	
<b>Program Characteristics</b>		
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. 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 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<sup>®</sup> qualified energy-saving bulbs, including CFLs, are a more efficient alternative to standard incandescent and halogen incandescent light bulbs. Switching to energy-efficient bulbs results in money, energy, and time savings. Bulbs come in a variety of wattages, colors, and styles, including bulbs for three-way lights and dimmable fixtures. ENERGY STAR bulbs use up to 75 percent less energy and last up to 10 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, the availability of products to the customer, and the ability to provide an incentive for specific products.

## 2013 Activities

In 2013, the Energy Efficient Lighting program provided almost 60 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 specialty and spiral bulbs but did not provide incentives for fixtures in 2013. Fluid Market Strategies (Fluid) managed the promotion. Fluid Market Strategies is responsible for retailer and manufacturer contracts, marketing materials at the point of purchase, and for providing support and training to retailers. In 2013, 18 retailers participated, representing 140 individual store locations throughout Idaho Power's service area. Fluid field staff conducted 860 store visits in 2013 to check on stock, point of purchase signs, and displays.

Additional marketing by Idaho Power included the utility website, a program brochure, and discussions with customers at community events. LED holiday lighting was promoted in the *Fall/Winter 2013 Energy Efficiency Guide* and a weekly newsletter for media, *News Briefs*.

In 2013, Idaho Power looked for opportunities to enhance energy efficiency education for new customers. Idaho Power considered sending energy-efficient bulbs to new customers as part of its new customer mailing; however, an energy efficiency postcard for newly purchased homes highlighting lighting and other programs, was developed instead.

Additional 2013 program activities included direct distribution. Idaho Power has a small, direct-distribution program where bulbs are given directly to customers at appropriate venues in the hope that customers might try CFLs for the first time or be encouraged to replace additional lamps. Guidelines for approved venues and the direct-distribution effort have been developed to ensure customer fairness. In 2013, 1,322 bulbs were distributed through this route.

In 2013, Idaho Power participated in the Northwest Regional Retail Collaborative (NWRRC) facilitated by NEEA and followed work by the Western Regional Utility Network (WRUN). Both the NWRRC and WRUN seek to develop collaborative approaches to working with manufactures and retailers to increase the uptake of energy-efficient products in the retail market. Idaho Power continued researching the transition of the Energy Efficient Lighting program to a more comprehensive retailer markdown program that would include additional product categories. Barriers include retailer point-of-sale system limitations. Groups like the NWRRC provide a forum to identify and work toward addressing these types of barriers.

## Cost-Effectiveness

In 2013, the RTF updated several assumptions for spiral and specialty CFLs to be consistent with the RTF's previous residential LED analysis. One of the biggest changes made by the RTF was the categorization of CFLs by lumen ranges rather than bulb type. Additionally, the baseline was updated using data collected through the Residential Building Stock Assessment (RBSA) and updated with *Energy Independence and Security Act of 2007* (EISA) wattages. Other factors considered were the hours of use, lamp life, lamp cost, room type, and space conditioning. The baseline for residential lighting has become increasingly more efficient. It is assumed that some of the CFLs being purchased are replacing burned out CFLs rather than an inefficient incandescent bulb. Despite the change, most of the CFL bulb types and lumen ranges remain cost effective. Globe CFLs in the 250 to 369 lumen range are shown to have negative savings of 1 kWh a year and will be removed from the program in 2014.

Decorative cold cathode candelabras in the 250 to 369 lumen range are shown not to be cost effective. A decision on whether or not the bulb type will remain in the program will be determined in 2014.

Throughout 2013, the RTF analyzed the savings for residential LED lights. Savings were finalized in October 2013. After further review, Idaho Power determined residential LEDs are cost effective. LEDs will be added to the program in early 2014. For detailed cost-effectiveness assumptions, metrics, and sources, see *Supplement 1: Cost-Effectiveness*.

## Customer Satisfaction and Evaluations

In 2013, Idaho Power administered a process evaluation of the Energy Efficiency Lighting program. This evaluation was performed by third-party contractor TRC Energy Services.

TRC Energy Services interviewed key staff and trade allies associated with the program, including the Idaho Power program specialist, energy efficiency analysts, and CRs. The contractor reviewed program-specific materials, such as applications, manuals, and marketing materials. TRC Energy Services reviewed the results of previous evaluations and the results of a recent residential nonparticipant third-party survey. The contractor conducted a program database review to determine installation rates of program measures and trade ally participation rates and verify key program metrics are captured in the database. Based on this data, TRC Energy Services identified program trends, successes, and barriers, then developed recommendations to address these barriers.

TRC Energy Services compared industry-standard program design and implementation best practices with those used by Idaho Power. This comparison included comparing the programs' practices with *Best Practices Benchmarking for Energy Efficiency Programs*.<sup>1</sup> TRC Energy Services also compared applicable best practices developed through a previous TRC Energy Services study done for the California investor-owned utilities that assessed the needs of third-party implementers.

TRC Energy Services found that the program is generally successful. Since the inception of the current iteration of this program in 2010, the program has consistently exceeded kWh savings goals.

Based on the results of this evaluation, TRC Energy Services identified the following opportunities for improvement:

- Continue to investigate options to bring LED products into the program, while maintaining cost-effectiveness. Consider providing a lower incentive than what was used in the original cost-effectiveness test/or choose LEDs that should be more cost effective based on hours of use.
- Increase coordination with retailers to find mutually beneficial in-store advertising solutions. Speak with corporate representatives from a few large retailers to understand the restrictions on advertising, then work with them to overcome these barriers.
- Further investigate opportunities to bring more grocery chains and small retailers into the program, or work with participating retailers of these types to overcome participation barriers and increase program sales.

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<sup>1</sup> Best Practices for Benchmarking Energy Efficiency Programs, National Energy Efficiency Best Practices Study, Volume NR5—Non-Residential Large Comprehensive Incentive Programs Best Practices Report, Quantum Consulting, Inc., 2004.

- Consider adopting changes in RTF metrics for future cycles (not retroactively).
- Consider assigning the invoice review to junior or administrative staff so the program specialist has more time to follow other recommendations provided here.
- 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.

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

## 2014 Strategies

Idaho Power will continue to participate in Simple Steps, Smart Savings in 2014. Marketing for this program will continue to include point-of-purchase signs at the retailer managed by Fluid Market Strategies or the BPA contractor. Due to an acquisition, effective January 1, 2014, Fluid Market Strategies will become CLEARResult.

Idaho Power will continue to promote energy-efficient lighting through its publications and directly to customers at outreach events. Idaho Power will continue to distribute limited quantities of bulbs directly to customers at appropriate public energy efficiency events and participate in retailer educational events as requested.

The company will introduce LEDs through the Simple Steps, Smart Savings program in the first quarter of 2014.

The company will study the recommendations from the 2013 process evaluation and look for process improvements.

Idaho Power will also continue to participate in the NWRRC. Participation in the NWRRC will help facilitate research into transitioning the Energy Efficient Lighting program to a more comprehensive retailer markdown program with additional product categories.

## Energy House Calls

	2013	2012
<b>Participation and Savings</b>		
Participants (homes)	411	668
Energy Savings (kWh)	837,261	1,192,039
Demand Reduction (MW)	n/a	n/a
<b>Program Costs by Funding Source</b>		
Idaho Energy Efficiency Rider	\$164,173	\$272,666
Oregon Energy Efficiency Rider	\$35,822	\$3,217
Idaho Power Funds	\$0	\$0
Total Program Costs—All Sources	\$199,995	\$275,884
<b>Program Levelized Costs</b>		
Utility Levelized Cost (\$/kWh)	\$0.017	\$0.016
Total Resource Levelized Cost (\$/kWh)	\$0.017	\$0.016
<b>Program Life Benefit/Cost Ratios</b>		
Utility Benefit/Cost Ratio	3.08	
Total Resource Benefit/Cost Ratio	3.08	
<b>Program Characteristics</b>		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2002	

### Description

The Energy House Calls program helps homeowners of manufactured and mobile homes with electric heating 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.

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; installing a CFL bulb; providing two furnace filters, along with replacement instructions; testing water heater temperatures for the proper setting; and distributing energy efficiency educational materials 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 \$325 to \$550. Idaho Power provides the customer with the contractor contact information via the Idaho Power website and marketing material. The customer then schedules an appointment by directly calling one of the recognized, certified sub-contractors specially trained to provide these services in their region. The contractor verifies the customer's eligibility. The actual energy savings and benefits realized by the customer depend on the measures installed and the repairs and/or adjustments made.

### 2013 Activities

Energy House Calls serviced 411 manufactured homes during 2013, resulting in 837,261 kWh savings. An additional 35 homes were serviced with a test and seal. Of the homes served, 47 percent were located

in the Treasure Valley and 23 percent were outside the Treasure Valley, with 13 percent in eastern Idaho and 17 percent in southern Idaho. Idaho Power coordinated sub-contractors performing local weatherization and energy efficiency services for this program, processed sub-contractor paperwork, and paid sub-contractors directly for work performed.

Marketing campaigns included a bill insert sent to all Idaho Power residential customers, a program brochure used by Idaho Power representatives in the field and at Idaho Power-sponsored events, and a direct-mail postcard mailed to all customers residing in manufactured homes within Idaho Power's service area that have not yet participated in the program. Door hangers were delivered to the contractors to distribute to homes in areas where the contractors were completing Energy House Calls visits. Idaho Power also delivered postcards from the marketing campaign to Community Action Partnership (CAP) agencies for distribution to customers that need assistance but do not meet the qualifications to receive weatherization assistance through those agencies. In addition, Idaho Power CRs and CSRs knowledgeable about the program continue to offer the program to qualified customers.

### **Cost-Effectiveness**

There were no changes in deemed savings or RTF savings for 2013 for manufactured-home prescriptive duct sealing. For more detailed information about the cost-effectiveness savings and assumptions, see *Supplement 1: Cost-Effectiveness*.

### **Customer Satisfaction and Evaluations**

To monitor quality assurance (QA) in 2013, third-party verifications were conducted by Momentum, LLC on approximately 5 percent of the participant homes, resulting in 22 home inspections. The final round of QA results are being analyzed during first quarter of 2014 and appear consistent with those conducted earlier in the year, which were very positive. Verifications were selected at random. The verification included a visual review of the reported information, as well as a blower door and a duct blaster test to verify the results submitted by the sub-contractor.

### **2014 Strategies**

In 2014, marketing tactics will include continuing to send direct mail to the residents of manufactured homes that have not yet participated in the program. With the assistance of the contractors and CRs, the distribution of door hangers in mobile home parks will continue. To raise awareness of the program, letters and flyers will be mailed to all churches, health and welfare district offices, and senior centers in the Idaho Power service area requesting flyers be posted where their constituents can view them.

Public relations activities may include radio interviews with Idaho Power CRs in Canyon County aired on Spanish radio stations. If successful, this can be extended to other regions the following year.

Based on a random sample of manufactured home residents in Idaho by Foremost Insurance, 79 percent use Facebook and 42 percent visit social media multiple times per day; therefore, Facebook advertisements will be tested for reaching this target audience in 2014.

Customer satisfaction and non-participant surveys are scheduled for the Energy House Calls program in 2014.

## ENERGY STAR® Homes Northwest

	2013	2012
<b>Participation and Savings</b>		
Participants (homes)	267	410
Energy Savings (kWh)	365,370	537,447
Demand Reduction (MW)	n/a	n/a
<b>Program Costs by Funding Source</b>		
Idaho Energy Efficiency Rider	\$344,217	\$450,727
Oregon Energy Efficiency Rider	\$4,664	\$2,458
Idaho Power Funds	\$4,000	\$0
Total Program Costs—All Sources	\$352,882	\$453,186
<b>Program Levelized Costs</b>		
Utility Levelized Cost (\$/kWh)	\$0.053	\$0.046
Total Resource Levelized Cost (\$/kWh)	\$0.104	\$0.089
<b>Program Life Benefit/Cost Ratios</b>		
Utility Benefit/Cost Ratio	3.89	
Total Resource Benefit/Cost Ratio	2.51	
<b>Program Characteristics</b>		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2003	

### Description

ENERGY STAR® Homes Northwest is a regionally coordinated initiative supported by a partnership between Idaho Power and NEEA to improve and promote the construction of energy-efficient homes using guidelines set forth by the US Environmental Protection Agency (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 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 code. The program specifications for ENERGY STAR Homes Northwest are verified by the independent, third-party home performance specialist (HPS) and are certified by the Washington State University Extension Energy Program and Building Energy, Inc., organizations that conduct the certification inspections throughout Idaho for the EPA. The 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. The specifications found in all ENERGY STAR certified homes are 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 involved in ENERGY STAR Homes Northwest in 2013 received a \$1,000 incentive per home built to the Northwest Builder Option Package (BOP) heat pump technology standard. 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 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 2013 was to provide marketing materials and support education and training activities for residential new-construction industry partners.

### **2013 Activities**

Again in 2013, a majority of the homes certified were townhome projects. This trend toward ENERGY STAR townhome certifications is a regional trend. In 2012, 14 of the 410 ENERGY STAR home certifications were single-family homes, and in 2013, 7 of the 267 homes were single-family homes and 260 were townhomes. In addition, the number of builders certifying their homes ENERGY STAR has declined since the implementation of the EPA's ENERGY STAR Version 3 guidelines in 2012, which increased requirements and costs to certify homes.

Idaho Power conducted numerous ENERGY STAR promotional activities during 2013. The company presented energy efficiency awards at the Building Contractors Association of Southwestern Idaho (BCASWI) Parade of Homes awards banquet. In addition, the company maintained a presence in the building industry by supporting many of the building contractors associations (BCA) throughout Idaho Power's service area. Specifically, 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 ENERGY STAR advertisements 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 Idaho BCA annual winter and summer meetings.

A bill insert was sent to all residential customers in the Idaho Power service area promoting the ENERGY STAR Homes Northwest program. In addition, a one-page informational sheet was created in partnership with Northwest ENERGY STAR Homes to promote DHPs in ENERGY STAR new construction homes. Another marketing tool used in the ENERGY STAR Homes Northwest program is Google Adwords, a keywords search tool. Keywords are identified and, when used in a search query by consumers, list the Idaho Power ENERGY STAR Homes Northwest program website at or near the top of search results to help direct consumers to the website.

### **Cost-Effectiveness**

There were no changes to cost-effectiveness savings assumptions from the RTF for ENERGY STAR Homes Northwest in 2013. In September, the RTF considered updating the savings for ENERGY STAR Homes Northwest based on new baseline data from the RBSA study, but the discussions were deferred and the current UES values were granted a sunset date extension to the end of April 2014. The primary reason for the deferral was to wait for the final calibration of the RTF savings for new construction

home baselines based on the 2011 RBSA study. Additionally, the RTF deemed kWh savings for townhomes less than single-family homes, but the administrative costs remain about the same. The high ratio of townhomes to total homes caused this program's cost-effectiveness to dip for 2013 to a TRC of 0.95. 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 electric, heat pump technology, and BOP. 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, air-duct leakage test, and combustion back-draft tests.

The state-certifying organization (SCO) performs QA inspection. The Washington State University Energy Extension Program is under contract with NEEA to perform QA and technical assistance duties within Idaho. For QA purposes, 10 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 2013, Idaho Power administered a process evaluation of the ENERGY STAR Homes Northwest program. This evaluation was performed by the third-party contractor TRC Energy Services. The third-party contractor interviewed key staff and trade allies associated with the program, including the Idaho Power program specialist, energy efficiency analysts, and CRs. Trade ally interviews included both builders and HPS.

TRC Energy Services reviewed program specific materials, such as applications, manuals, marketing materials, and the results of previous evaluations, as well as the results of a recent residential nonparticipant third-party survey. TRC Energy Services also conducted a program database review to determine installation rates of program measures and trade ally participation rates and verify key program metrics are captured in the database. Based on this data, TRC Energy Services identified program trends, successes, and barriers and developed recommendations to address these barriers.

TRC Energy Services compared industry-standard program design and implementation best practices with those being used by Idaho Power. This compared the programs' practices with *Best Practices Benchmarking for Energy Efficiency Programs*.<sup>2</sup> TRC Energy Services also compared applicable best practices developed through a previous TRC Energy Services study done for the California investor-owned utilities that assessed the needs of third-party implementers.

In general, TRC Energy Services found the ENERGY STAR Homes Northwest program is successfully meeting goals and delivering energy savings. TRC Energy Services notes this is particularly impressive given the challenges of the recent market downturn and the exclusion of customers with natural gas heat from the program.

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<sup>2</sup> Best Practices for Benchmarking Energy Efficiency Programs, National Energy Efficiency Best Practices Study, Volume NR5—Non-Residential Large Comprehensive Incentive Programs Best Practices Report, Quantum Consulting, Inc., 2004.

However, TRC Energy Services found that, while the program had successes in the face of significant challenges, there is uncertainty in the future energy savings from this program as there are only a few trade allies (builders and HPS) that currently participate in the program. TRC Energy Services found evidence these trade allies may reduce their participation in the future due to concerns with program QA, and the perceived value of the ENERGY STAR® label is dropping among customers and builders. In addition, TRC Energy Services was unable to reach any participating builders, despite repeated attempts, which may indicate they are not involved with the program or not in business.

Based on the results of this evaluation, TRC Energy Services provided the following recommendations for program improvement:

- Continue to support the multifamily and townhome market and identify other markets that could be building electrically heated homes and target marketing efforts toward these sectors.
- 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.
- Work with other entities to develop these talking points.
- Continue to support the HPS. Meet with them one-on-one to understand their barriers to participation, and to work with them to overcome these barriers. In particular, revisit the QA procedure for the program.
- Update the contractor list so it contains only builders that provide accurate information about the program. Because contractors sometimes go out of business or change contact information, periodically update this list (e.g., biannually) by reaching out to contractors.
- Develop a better understanding of the program target market, including projects using electric heat and heat pumps, and develop targeted marketing strategies based on these findings.
- Test the hypothesis reported by Idaho Power staff that multifamily builders are the primary group building heat pump homes by analyzing the residential nonparticipant survey results and through interviews with BCA staff.
- Use 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.
- Develop new relationships between Idaho Power's CRs and the program specialist staff and key homebuilders, heat pump contractors, and heat pump suppliers. Reconnect with previously participating builders.
- 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.
- Develop a brand for Idaho Power's energy efficiency programs to increase customer awareness. This recommendation should be pursued at the portfolio level.
- 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. Also, have CRs attend program trainings or heat pump

presentations with builders to both learn about the program and develop relationships with local builders.

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

## 2014 Strategies

As in 2013, builders involved in ENERGY STAR Homes Northwest during 2014 in Idaho Power's service area will receive a \$1,000 incentive per home built to the Northwest BOP and 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 new home builders and homebuyers. Results will be influenced by the housing market's potential improvements. These marketing efforts include Parade of Homes advertisements in parade magazines for the BCASWI, SRVBCA, MVBA, and the BCA of Eastern Idaho. Marketing materials will be available for use by builders and realtors. Bill inserts will be sent to all residential customers in June. In addition, 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 2014. 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.

In 2014, Idaho Power will review the 2013 process evaluation and make appropriate program modifications.

## Heating & Cooling Efficiency Program

	2013	2012
<b>Participation and Savings</b>		
Participants (projects)	210	141
Energy Savings (kWh)	1,003,730	688,855
Demand Reduction (MW)	n/a	n/a
<b>Program Costs by Funding Source</b>		
Idaho Energy Efficiency Rider	\$317,973	\$175,483
Oregon Energy Efficiency Rider	\$11,700	\$6,798
Idaho Power Funds	\$0	\$0
Total Program Costs—All Sources	\$329,674	\$182,281
<b>Program Levelized Costs</b>		
Utility Levelized Cost (\$/kWh)	\$0.022	\$0.018
Total Resource Levelized Cost (\$/kWh)	\$0.050	\$0.066
<b>Program Life Benefit/Cost Ratios</b>		
Utility Benefit/Cost Ratio	3.50	
Total Resource Benefit/Cost Ratio	1.75	
<b>Program Characteristics</b>		
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 2013 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.

### 2013 Activities

The H&CE Program's list of measures and incentives for 2013 included the following:

- Customer incentives for replacing an existing air-source heat pump with a new air-source heat pump were \$200 for minimum efficiency 8.2 heating seasonal performance factor (HSPF) and \$250 for minimum efficiency 8.5 HSPF. The incentive for 8.2 HSPF was eliminated for installations completed on or after March 1, 2013.
- Customer incentives for replacing an existing electric, oil, or propane heating system with a new air-source heat pump were \$300 for minimum efficiency 8.2 HSPF and \$400 for minimum

efficiency 8.5 HSPF. The incentive for 8.2 HSPF was eliminated for installations completed on or after March 1, 2013. The incentive for 8.5 HSPF was increased to \$800 for installations replacing electric heating systems completed on or after March 1, 2013. Participating homes with oil or propane heating systems must have been located in areas where natural gas was unavailable.

- Incentives for customers or builders of new construction installing an air-source heat pump in a new home were \$300 for minimum efficiency 8.2 HSPF and \$400 for minimum efficiency 8.5 HSPF. The incentive for 8.2 HSPF was eliminated for installations completed on or after March 31, 2013.
- Customer incentive for replacing an existing air-source heat pump with a new open-loop water-source heat pump was \$500 for 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 was \$1,000 for minimum efficiency 3.5 COP. Participating homes with oil or propane heating systems must have been located in areas where natural gas was unavailable.
- The incentive for customers with new construction installing an open-loop water-source heat pump in a new home was \$1,000 for minimum efficiency 3.5 COP.
- The evaporative-cooler customer incentive was \$150.

There were two changes to the program effective March 1, 2013. The first change was the removal of measures involving air-source heat pumps below 8.5 HSPF. Measures removed include replacing an existing air-source heat pump, electric resistance, oil, or propane heating system with a new minimum 8.2 HSPF air-source heat pump. The primary reason for removing these measures is the heat pump market has been slowly transforming to more efficient, higher HSPF heat pumps. In the last several years, only about 3.5 percent of all applications received in this program have been for units below 8.5 HSPF.

The second change was to increase the incentive from \$400 to \$800 when replacing an electric-resistance heating system with an air-source heat pump having a minimum of 8.5 HSPF. Idaho Power made this change to increase the participation of this measure and to focus the program on higher efficiency measures. Idaho Power has evaluated the cost-effectiveness of this measure with an \$800 incentive, and this measure continues to be cost effective. The reinstatement of the federal tax credit available for heat pumps may have helped the resulting 84-percent increase in applications processed for this measure when compared to 2012. On the national level, a 2011 federal tax credit for heat pumps contained in section 25C of the Internal Revenue Service (IRS) tax code that was not renewed in 2012 was re-instated for 2013 and made retroactive to January 1, 2012. The incremental installed cost of a new heat pump is approximately \$3,000.

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 2013.

Idaho Power held nine training sessions for contractors in 2013. 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.

Knowing contractors are a vital marketing asset, contractor visits were made in the first half of 2013 to better understand how Idaho Power can support the contractors in promoting the H&CE Program, as well as the DHP Pilot. Specifically, Idaho Power discussed the development of a contractor portal housed on Idaho Power's website. The portal will provide contractors with access to predesigned and approved marketing collateral materials. These materials will include specific text boxes contractors can customize with their own business name, address, logo, and phone number.

Information about the H&CE Program is also contained in the postcard for newly purchased homes that was initiated in 2013 and mailed to customers who have purchased a home that is new to them.

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. The program specialist 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.

In 2012, Idaho Power contracted with the Cadmus Group, Inc., to conduct an impact evaluation of 2011 savings results. Each recommendation is followed by a description of how Idaho Power responded in 2013:

- Program staff should continue to collect detailed data on each project to refine individual project savings estimates. In response, Idaho Power continues to collect detailed data from incentive applications. This information is readily available for the program specialist to assess as needed.
- Perform a saturation study to determine intent to convert to all-electric heating and cooling. The recommended saturation study was not performed because Idaho Power conducts the residential end-use survey, a periodic broad saturation study. The most recent study was made available in 2011. In addition, NEEA created the *Residential Building Stock Assessment Report* dated September 18, 2012.
- Consider the promotion of on-bill financing to make a heat pump more attractive to customers. This recommendation to offer on-bill financing was not instituted because of the company's installation of the new CR&B system. On-bill financing and tracking is very complex when the details are considered.

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.

### **Cost-Effectiveness**

There were no changes to cost-effectiveness UES assumptions for the H&CE program during 2013 from 2012. For 2013, participant-cost averages used for the cost-effectiveness analysis were calculated using

Idaho Power-specific project data over two years (2012–2013) to estimate typical project costs instead of relying on regional averages. 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.

In 2013, Idaho Power administered a process evaluation of the H&CE Program. This evaluation was performed by third-party contractor TRC Energy Services. The contractor interviewed key staff and trade allies associated with the program, including the Idaho Power program specialist, energy efficiency analysts, and CRs.

TRC Energy Services reviewed program specific materials, such as applications, manuals, marketing materials, and results of previous evaluations, as well as the results of a recent residential nonparticipant third-party survey. TRC Energy Services also conducted a program database review to determine installation rates of program measures and trade ally participation rates and verify key program metrics are captured in the database. Based on this data, TRC Energy Services identified program trends, successes, and barriers and developed recommendations to address these barriers. TRC Energy Services compared industry-standard program design and implementation best practices with those being used by Idaho Power. This compared the programs' practices with *Best Practices Benchmarking for Energy Efficiency Programs*.<sup>3</sup> TRC Energy Services also compared applicable best practices developed through a previous TRC Energy Services study done for the California investor-owned utilities that assessed the needs of third-party implementers.

TRC Energy Services found the program is generally successful and has consistently met its energy-savings goals in recent years despite the recent market downturn. TRC Energy Services spoke with five participating and four nonparticipating contractors. (The nonparticipating contractors had received training for the program and were listed as a contractor on the program website but had not yet delivered a project). These contractors were generally satisfied with the program and its processes.

Although the program is performing well overall and appears well positioned to continue to deliver energy savings, TRC Energy Savings identified the following opportunities for improvement:

- Gain a better understanding of the eligible market (i.e., customers with electric, oil, or propane heat) and their barriers for program participation to better target marketing efforts.
- Describe the program's eligibility requirements clearly and prominently in marketing materials and on the program website.

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<sup>3</sup> Best Practices for Benchmarking Energy Efficiency Programs, National Energy Efficiency Best Practices Study, Volume NR5—Non-Residential Large Comprehensive Incentive Programs Best Practices Report, Quantum Consulting, Inc., 2004.

- Offer a higher contractor incentive for the first application that a contractor submits to help address the learning curve and better offset the additional time contractors take in completing their first application. To be fair to already-participating contractors, offer the same incentive amount to contractors who submit a certain number of applications (e.g., for 10 completed projects) or for bringing in projects of a certain type for which Idaho Power would like to see more growth.
- Conduct contractor satisfaction surveys regularly to gather feedback on the program application, marketing efforts (materials that may help promotional efforts), customer demographics, barriers to participation, and training needs.
- Develop a brand for Idaho Power’s energy efficiency programs to increase customer awareness. (This recommendation should be pursued at the portfolio level.)
- Provide contractors with co-branded marketing materials, case studies, or cost calculation examples to assist them with their marketing efforts.
- Engage CRs in contractor trainings. In the past, Idaho Power provided trainings to trade allies and CRs. These side-by-side trainings provide the CRs with technical knowledge about the program, and they help CRs to create or maintain contractor relationships.
- Perform yearly check-ins with contractors to ensure at least one contractor employee is trained and knowledgeable about promoting the program. If the qualified person leaves the company or changes his/her role, the company should be required to contact Idaho Power within a certain amount of time (e.g., 2 weeks) with the contact name of the replacement so Idaho Power can train this person.
- 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.

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

## 2014 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 at both local wholesaler and 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 2014.

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 launch of the contractor portal will take place in 2014. Once contractors use the portal, Idaho Power will ask for their feedback regarding possible areas of improvement. Idaho Power will continue to populate the portal with new marketing materials as the year progresses.

Also planned for 2014 are online behavioral advertisements, social media, print advertisements placed in publications that reach a higher rate of electrically heated homes, direct-mail letters and postcards, and possible changes to the H&CE Program webpages.

In 2014, Idaho Power will review the 2013 process evaluation recommendations and make appropriate program modifications.

## Home Improvement Program

	2013	2012
<b>Participation and Savings</b>		
Participants (homes)	365	840
Energy Savings (kWh)	616,044	457,353
Demand Reduction (MW)	n/a	n/a
<b>Program Costs by Funding Source</b>		
Idaho Energy Efficiency Rider	\$299,032	\$385,091
Oregon Energy Efficiency Rider	\$0	\$0
Idaho Power Funds	\$465	\$0
Total Program Costs—All Sources	\$299,497	\$385,091
<b>Program Levelized Costs</b>		
Utility Levelized Cost (\$/kWh)	\$0.025	\$0.044
Total Resource Levelized Cost (\$/kWh)	\$0.090	\$0.093
<b>Program Life Benefit/Cost Ratios</b>		
Utility Benefit/Cost Ratio	2.94	
Total Resource Benefit/Cost Ratio	1.09	
<b>Program Characteristics</b>		
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 multifamily 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 contractors must successfully complete a two-day contractor training course delivered by Fluid Market Strategies and Idaho Power. Customers must use a participating contractor to qualify for the Idaho Power incentive. Incentives are processed by Idaho Power.

The program details include the following:

- Customer incentives for attic insulation, wall insulation, 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 square foot for attic insulation, 50 cents per square foot 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 of under-floor must be R-5 or less, and the final R-Value must be R-30.
- Customer incentives are \$2.50 per square foot 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.

## 2013 Activities

On February 1, 2013, incentives for energy-efficient windows and sliding glass doors were added to the Home Improvement Program, and manufactured homes meeting all program qualifications were made eligible for all Home Improvement Program incentives.

Idaho Power held an insulator contractor training in May 2013 in Nampa. Five companies attended the insulation training.

Various marketing techniques were employed in 2013. An updated program brochure, incentive application form, and webpage were created and produced. During September, October, and November, a digital online advertising campaign was created to highlight program incentives for energy-efficient windows. The Home Improvement Program was Idaho Power’s first energy efficiency program to be promoted via Idaho Power’s Facebook. According to industry standards, a CTR of 0.020 is considered “good,” while a CTR of 0.024 or above is “very good.” The CTR for the Home Improvement campaign varied from a high of 0.40 to a low of 0.29, both well above industry standards.

Other marketing tactics completed in 2013 include direct-mail letters, bill inserts, print advertisements, inclusion in the postcard for newly purchased homes, postings to Idaho Power’s Facebook page, and new retail signage. A targeted print advertising campaign ran in eastern Idaho in December. Informational bill inserts ran in September and November, and a direct-mail letter targeted to electrically heated customers throughout the service area was sent in November. This program was also included in a postcard for newly purchased homes distributed to residential customers. All of these marketing activities resulted in increased customer inquiries regarding program details and provided opportunities for customer education.

## Cost-Effectiveness

Other than the addition of windows to the program, there were no changes or updates to savings and cost-effectiveness assumptions in 2013. For all measures, deemed savings values specific to Idaho Power’s heating and cooling climate zones were published by the RTF in October 2011, including cooling savings based on the RTF’s deemed savings specifications for single-family home weatherization UES values produced in July 2011. 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 19 QA inspections completed in 2013, no issues were reported.

The new program incentive application form, revised in 2013 due to program changes, included an optional question from the prior application form asking customers how they heard about the program. Of the 365 applications, 322 customers answered the marketing question. The results are as follows:

- 125 customers (39%) heard about the program from an insulation contractor.
- 121 customers (38%) heard about the program from an Idaho Power bill insert
- 32 customers (9%) heard about the program from the Idaho Power website.
- 20 customers (6%) received a referral from a friend or acquaintance.
- 13 customers (5%) heard about the program from a home improvement show or fair.
- 3 customers (1%) heard about the program from a newspaper or online advertisement.

## ***2014 Strategies***

Numerous marketing activities are planned for 2014. Two Informational bill inserts are planned. A targeted direct-mail letter is scheduled for October. Online advertisements will expand to include both Facebook and behavioral network advertisements. Print advertisements will be placed in rural publications to target customers with electrically heated homes. A contractor portal allowing contractors to download marketing materials is scheduled to launch. Window clings and point-of-purchase advertising are also being developed for distribution at retail locations. These materials will specifically promote energy-efficient windows.

## Home Products Program

	2013	2012
<b>Participation and Savings</b>		
Participants (appliances/fixtures)	13,792	16,675
Energy Savings (kWh)	885,980	887,222
Demand Reduction (MW)	n/a	n/a
<b>Program Costs by Funding Source</b>		
Idaho Energy Efficiency Rider	\$391,348	\$640,098
Oregon Energy Efficiency Rider	\$14,117	\$18,829
Idaho Power Funds	\$50	\$105
Total Program Costs—All Sources	\$405,515	\$659,032
<b>Program Levelized Costs</b>		
Utility Levelized Cost (\$/kWh)	\$0.041	\$0.061
Total Resource Levelized Cost (\$/kWh)	\$0.071	\$0.075
<b>Program Life Benefit/Cost Ratios</b>		
Utility Benefit/Cost Ratio	1.98	
Total Resource Benefit/Cost Ratio	1.21	
<b>Program Characteristics</b>		
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<sup>®</sup> qualified appliances. Appliances and products with ENERGY STAR must meet higher, stricter efficiency criteria than federal standards. In 2013, the measures and related incentives included ENERGY STAR qualified clothes washers (\$50), refrigerators (\$30), and freezers (\$20). On March 31, 2013, clothes washers were removed from the list of eligible appliances due to no longer meeting Idaho Power's cost-effectiveness requirements.

Program participation is a simple process for customers, who have two options to submit their application: They may complete a mail-in incentive application and submit it with an itemized copy of the sales receipt or submit an online application, offered through Idaho Power's processing vendor's website, and upload or mail in the receipt. 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 Fluid Market Strategies.

Idaho Power works in collaboration with NEEA on the Consumer Electronics Energy Forward Initiative. This program provides a direct incentive to manufacturers for producing the most energy-efficient

televisions available. NEEA manages advertising, sales support, and in-store promotions for the program.

## 2013 Activities

Due to changes in the baseline threshold used to calculate energy savings, clothes washers were discontinued, effective March 31, 2013. At the EEAG meeting February 7, Idaho Power provided an update to EEAG members regarding the upcoming changes. In 2013, Idaho Power filed Oregon Advice No. 13-03 with the OPUC to remove clothes washers from the list of eligible appliances offered to Oregon customers through the Home Products Program. Several methods were used to notify stakeholders of the removal of the clothes washer incentives. Idaho Power mailed letters to all retailers in January to alert them of the changes. The program created updated table tents and static clings for distribution to all retailers in early February for display. These products informed customers of the removal of the clothes washer incentive and specified customers needed to purchase their clothes washers before March 31, 2013, to qualify for the incentive. The Idaho Power website home page was updated in February and March to notify customers of the upcoming change to the program. Idaho Power staff visited retailers during February and March to discuss the changes and answer questions.

Marketing the Home Products Program to customers occurred primarily through retail outlets. Idaho Power provided information to store managers and employees through training sessions at store staff meetings and through periodic visits by various Idaho Power representatives. In addition to brochures, static clings were distributed to nearly 80 retailers for placement on qualifying products. When placed prominently on eligible products, the clings focused attention on both the products and the respective incentive amounts.

In 2013, Idaho Power continued outsourcing the processing of applications for the Home Products Program to Advertising Checking Bureau, Inc. (ACB, Inc.), a third-party vendor. Participants had the option of online or paper applications. Both methods required the customer to submit a copy of the sales receipt to confirm the product purchase. When submitting the application online, customers had the option of uploading the receipt or mailing it along with a copy of their webpage confirmation.

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 2013, Home Products Program participants donated \$220 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, bill stuffers, community promotions, Idaho Power field staff, and other outreach activities. During 2013, one bill insert detailing the program was mailed to all residential customers. This bill insert went out with the November bill to motivate holiday shoppers to purchase ENERGY STAR qualified appliances when making holiday purchases. In 2013, a targeted online campaign was used to reach Idaho Power customers shopping for appliances. The overall performance of the campaign was above expectations and industry averages.

Through the Home Products Program, Idaho Power paid 6,810 appliance incentives during 2013, resulting in 288,667 kWh annual savings. Incentives were issued for approximately 2,624 clothes washers, 3,765 refrigerators, and 421 freezers, a decrease from 2012. Additionally, Idaho Power paid incentives on 6,982 showerheads sold under the regional BPA Simple Steps, Smart Savings promotion,

resulting in 597,313 annual kWh savings. This promotion uses the same retailer markdown model used in the Energy Efficiency Lighting program.

In 2013, 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.

Idaho Power's partnership with NEEA's Consumer Electronics Energy Forward Initiative continued in 2013. The initiative highlighted the most energy-efficient televisions available. Energy Forward marketing focused on in-store impacts. NEEA tested two experimental designs. Results are pending. The energy forward initiative concluded on December 31, 2013. NEEA will continue to provide television incentives as part of its new retail platform. For more information on the initiative, view the *NEEA Residential Activities in Idaho* section of this *Demand-Side Management 2013 Annual Report*.

## Cost-Effectiveness

In early 2013, Idaho Power removed clothes washers from the program because the measure was no longer cost effective. The RTF reviewed clothes washers in 2012 and updated several assumptions that decreased annual savings from 122 kWh to 37 kWh for clothes washers using 'any' domestic water heater system and any dryer type. In fall 2013, the RTF looked at clothes washers again. While annual savings increased slightly to 41 kWh, the RTF also added detergent cost saving NEBs. With the inclusion of NEBs, such as gas, wastewater, and detergent savings, the clothes washers do pass the TRC test; however, the 'any' ENERGY STAR clothes washers option still fails the UC test. Idaho Power is now looking at adding clothes washers to the program using a qualified product list for clothes washers meeting a higher modified energy factors (MEF). As before, Idaho Power adjusted the savings downwards to reflect the electric water heater and electric dryer saturation in the Idaho Power service area. The adjustment is based on information from the *2010 Idaho Power Residential End-Use Survey*.

The RTF also updated savings assumptions for ENERGY STAR refrigerators in spring 2013. The RTF updated the baseline to reflect current market conditions for refrigerators. The measure life was also decreased from 20 to 17 years based on the Department of Energy's (DOE) Technical Support Document. Additionally, the average volume for each refrigerator type was used to calculate the savings for each configuration rather than one average volume used in the previous version. As a result of these changes, the annual savings for any ENERGY STAR refrigerator declined from 44 kWh to 26 kWh. The measure remained cost-effective in 2013.

For measure cost-effectiveness calculations, Idaho Power determines administrative costs as a per-kWh amount. Since the per-unit savings attributed to clothes washers and refrigerators decreased, the program's overall administrative costs increased from \$0.118 in 2011 to \$0.342 in 2012 and to \$0.366 per kWh in 2013. Because of the lower savings that resulted in higher administrative costs, four refrigerator measures are shown to have a TRC below 1.0. Beginning in late 2013, Idaho Power began administering this program in-house rather than using a third-party. This change should result in lower administrative costs in 2014. Additionally, a qualified products list may increase the per-unit savings for the program. There were no changes to the savings assumptions that drive the cost-effectiveness of freezers and low-flow showerheads. For detailed information for all measures within the Home Products Program, see *Supplement 1: Cost-Effectiveness*.

## ***Customer Satisfaction and Evaluations***

Information gathered from a question on the incentive application form indicated salespeople are a proven, effective marketing channel. Eighty-two percent of the responses indicated customers learned about the Home Products Program via salespeople. Eight percent learned from in-store materials (brochures); 6 percent from an Idaho Power bill insert sent to all residential customers; and 4 percent from the Idaho Power website, newspaper/radio, or referral.

## ***2014 Strategies***

The marketing strategy for 2014 will remain similar to 2013, with only minimal adjustments and updates as needed. A bill stuffer, in-store applications, clings, and targeted online advertisements will be the primary marketing avenues. Targeted online advertisements will be added as a new media effort. When a customer is browsing the web, online advertisements for the Home Products Program will appear in the margins of the various landing pages when that customer has used the web browser to conduct a prior search related to appliances. The Idaho Power Facebook page will have a new Home Efficiency section highlighting several of the Idaho Power incentive programs. The customer will have the ability to select the program they are interested in and be forwarded to the Idaho Power website to learn more about that program.

With the decreased number of applications received and the possibility of moving to a qualified-products list, the decision was made to terminate the contract with the Idaho Power application processing vendor, ACB. Idaho Power will begin application processing and the issuance of checks in January 2014. On April 1, 2014, ACB will shut down the website and toll-free number. The bank account ACB manages on behalf of Idaho Power for incentive payments will close on April 15, 2014. ACB closure activities are planned to be finalized by April 15, 2014.

In 2014, Idaho Power will continue to participate in the NWRCC and follow the work by WRUN. In addition to NWRCC's own work, the NWRCC will also serve as a workgroup to the NEEA Retail Products Platform (RPP). The RPP initiative 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.

Due to the program changes in 2013, the scheduled customer satisfaction survey has been postponed until 2014.

## Oregon Residential Weatherization

	2013	2012
<b>Participation and Savings</b>		
Participants (audits/projects)	14	5
Energy Savings (kWh)	14,907	11,985
Demand Reduction (MW)	n/a	n/a
<b>Program Costs by Funding Source</b>		
Idaho Energy Efficiency Rider	\$0	\$0
Oregon Energy Efficiency Rider	\$8,248	\$4,051
Idaho Power Funds	\$768	\$465
Total Program Costs—All Sources	\$9,017	\$4,516
<b>Program Levelized Costs</b>		
Utility Levelized Cost (\$/kWh)	\$0.035	\$0.022
Total Resource Levelized Cost (\$/kWh)	\$0.055	\$0.056
<b>Program Life Benefit/Cost Ratios</b>		
Utility Benefit/Cost Ratio	3.95	
Total Resource Benefit/Cost Ratio	1.69	
<b>Program Characteristics</b>		
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 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.

### 2013 Activities

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

Idaho Power issued eight incentives totaling \$2,181 for 14,907 kWh savings. All incentives and related savings were for ceiling insulation measures. There were no loans made through this program during 2013.

### Cost-Effectiveness

The Oregon Residential Weatherization program is a statutory program as provided for 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 required 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.

Fourteen projects were completed under this program in 2013. Projects consisted of increasing attic insulation. The projects combined for an annual energy savings of 14,907 kWh at a levelized TRC per kWh of 5.5 cents over the 30-year attic-insulation measure life as defined by Oregon Schedule 78. The CEL for insulation (30-year measure life) is \$1.05 per annual kWh saved. Since the actual levelized cost of energy savings for the 2013 projects was 0.055 cents from the TRC perspective, these projects are considered cost effective.

### **2014 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

	2013	2012
<b>Participation and Savings</b>		
Participants (homes)	42	35
Energy Savings (kWh)	269,891	187,108
Demand Reduction (MW)	n/a	n/a
<b>Program Costs by Funding Source</b>		
Idaho Energy Efficiency Rider	\$58,674	\$34,926
Oregon Energy Efficiency Rider	\$2,097	\$2,316
Idaho Power Funds	\$0	\$0
Total Program Costs—All Sources	\$60,770	\$37,241
<b>Program Levelized Costs</b>		
Utility Levelized Cost (\$/kWh)	\$0.014	\$0.012
Total Resource Levelized Cost (\$/kWh)	\$0.021	\$0.024
<b>Program Life Benefit/Cost Ratios</b>		
Utility Benefit/Cost Ratio	8.45	
Total Resource Benefit/Cost Ratio	3.88	
<b>Program Characteristics</b>		
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<sup>®</sup> 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 home 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 2013 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.

## 2013 Activities

To help offset the cost of the ENERGY STAR model versus a non-ENERGY STAR model, the incentive amount for customers doubled from \$500 to \$1,000. The amount to salespeople doubled from \$100 to \$200.

During 2013, Idaho Power paid 39 incentives on new manufactured homes, which accounted for 249,350 annual kWh savings. In addition, Idaho Power purchased three ENERGY STAR manufactured homes and placed them in the employee housing area in the Oxbow facility. These homes accounted for 20,541 kWh savings. Overall program savings increased by 44 percent over 2012. The increase in savings was due mostly to an increase in homes sited in colder climates where higher savings are attributed to each home.

During the month of January, all residential customers received a bill insert to inform them of the change in the incentive amount. Also, on January 15, a press release was issued informing customers that incentives had doubled for purchasing ENERGY STAR qualified manufactured homes through Idaho Power's Rebate Advantage program. New posters and brochures were created and distributed to all local dealerships to promote the increase in the incentive amount.

Marketing strategies used in 2013 included completing the billboard campaign and two bill inserts. All 13 of the manufactured home retailers in the Idaho Power regions were offered the option of having a skid sign or billboard installed at their business to promote the Rebate Advantage program. Of those 13 retailers, two requested to have banners hung and two requested to have skid signs displayed at their businesses. Of the applications received in 2013, 55 percent were homes purchased from the four retailers that had a Rebate Advantage banner or skid sign displayed at their business.

Idaho Power continued to support dealerships in 2013 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

No changes occurred to the assumptions that drive the cost-effectiveness for ENERGY STAR manufactured homes. All cost-effective analyses were based on the January 2011 approval decision by the RTF. The measures remained cost effective for 2013. The measure is currently under review, and the RTF extended the sunset date for the measure until July 2014. For details, see *Supplement 1: Cost-Effectiveness*.

## 2014 Strategies

Idaho Power will explore new marketing methods and promote the program using internal resources and external resources at the dealership level. CRs will enhance relationships with dealerships by visiting each dealership, offering program support, answering questions, and distributing materials. The interaction of Idaho Power field staff with the local dealers re-emphasizes the importance of promoting the benefits of ENERGY STAR qualified homes and products. New collateral materials and outdoor signs will be sent to dealers as needed. A bill insert for the program will be distributed in the fall.

According to the *2013 Manufactured Home Market Facts Report* by Foremost<sup>®</sup>, manufactured-home residents are highly engaged in social media; therefore, Facebook advertisements and targeted online advertisements will be tested for reaching this target audience in 2014. Other strategies may include

banner-type promotional materials at the physical dealerships. Participation in this option will be determined by direct contact with the dealerships to determine how many indicate interest in having the banner displayed at their dealership.

## See ya later, refrigerator®

	2013	2012
<b>Participation and Savings</b>		
Participants (refrigerators/freezers)	3,307	3,176
Energy Savings (kWh)	1,442,344	1,576,426
Demand Reduction (MW)	n/a	n/a
<b>Program Costs by Funding Source</b>		
Idaho Energy Efficiency Rider	\$571,304	\$596,167
Oregon Energy Efficiency Rider	\$17,750	\$16,979
Idaho Power Funds	\$0	\$0
Total Program Costs—All Sources	\$589,054	\$613,146
<b>Program Levelized Costs</b>		
Utility Levelized Cost (\$/kWh)	\$0.061	\$0.046
Total Resource Levelized Cost (\$/kWh)	\$0.061	\$0.046
<b>Program Life Benefit/Cost Ratios</b>		
Utility Benefit/Cost Ratio	1.29	
Total Resource Benefit/Cost Ratio	1.29	
<b>Program Characteristics</b>		
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. Applicants enroll online or by phone. Idaho Power screens each applicant to confirm eligibility. JACO Environmental, Inc., (JACO) screens each applicant to confirm the refrigerator or freezer unit under consideration meets all program eligibility requirements, including the requirement that a unit must be residential-grade, a minimum of 10 cubic feet as measured using inside dimensions, no larger than 30 cubic feet, 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.

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. Idaho Power provides participant confirmation, supplemental marketing, and internal program administration.

### 2013 Activities

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 2013, 3.2 percent of Idaho Power's See ya later, refrigerator® participants chose this option, raising \$3,240 for Project Share.

The program continued to use a variety of marketing channels, including bill inserts, direct mail, Valpak®, and promotion at events. A customer survey from the 2011 process evaluation showed customers value the convenience aspect of the program. In 2013, Idaho Power replaced the recycling-focused imagery and copy on program collateral with convenience-themed imagery and copy.

In October, Idaho Power and JACO appeared in a live television broadcast segment on KTVB's noon news show, highlighting the program and demonstrating how materials from refrigerators can be recycled and reused.

### **Cost-Effectiveness**

In late 2012, the RTF reviewed refrigerator and freezer recycling as part of a comprehensive review of most residential measures and RTF guideline updates. The energy-use assumption was updated to use Association of Home Appliance Manufacturers (AHAM) data, which considers the vintage of each recycled unit and historical kWh consumption. An adjustment factor is applied to account for the energy efficiency improvements of newer recycled units. The measure life was updated using DOE survival curves. As a result of these changes, the annual savings for freezer removal and decommissioning was reduced from 555 kWh to 478 kWh. The measure life decreased slightly from 6 years to 5 years. Annual savings for refrigerator removal and decommissioning declined from 482 kWh to 424 kWh, and the measure life decreased from 9 to 7 years. The measures remain cost effective for 2013. For details, see *Supplement 1: Cost-Effectiveness*.

### **Customer Satisfaction and Evaluations**

No formal evaluations were conducted in 2013 for this program.

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 2013 unit data showed that 22 percent of units the program picked up were stand-alone freezers, and 78 percent of the units were refrigerators. Fifty-six percent of the units were secondary, 30 percent were primary, and 13 percent were unknown. In 2013, 55 percent of the units collected were manufactured from 1965 to 1990, which generally represents the least efficient years of refrigerator manufacturing. In 2012, 57 percent of units were of this vintage.

The program reclaims or recycles up to 95 percent of the components of each unit collected. In 2013, this amounted to more than 451,000 pounds of materials. Reclaimed materials may include oils or refrigerants that can be distilled, then reused.

Marketing in 2013 included a variety of tactics including bill inserts, direct mail, online advertising, events, newspaper advertisements and radio advertisements. JACO and Idaho Power track data related to the marketing effectiveness of the program.

Results of customer tracking information indicate 48 percent of customers learned of the program through bill inserts that ran in March, April, May, August, and October. 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-five percent of customers who enrolled used the toll-free telephone number, and 25 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 8 indicates ways customers heard about the program and the percentage of customers who reported hearing about the program through each channel. The Other category includes sources, such as community events, repeat customers, the truck advertisement, and unknown sources.

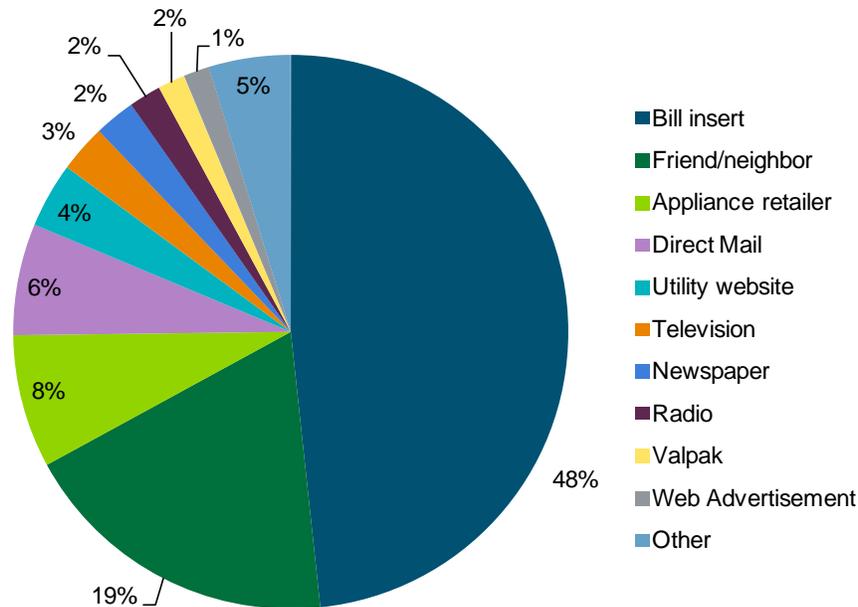


Figure 8. How customers heard about See ya later, refrigerator®

## 2014 Strategies

In 2014, Idaho Power will continue offering the program and managing the contract with JACO. The contract will expire at the end of 2014. Idaho Power will re-evaluate the cost-effectiveness of the program to determine if a contract renewal is appropriate.

Idaho Power will continue to market the program using a variety of channels, including bill inserts, direct mail, online advertisements, and social media.

## Weatherization Assistance for Qualified Customers

	2013	2012
<b>Participation and Savings</b>		
Participants (homes/non-profits)	254	238
Energy Savings (kWh)	681,736	648,304
Demand Reduction (MW)	n/a	n/a
<b>Program Costs by Funding Source</b>		
Idaho Energy Efficiency Rider	\$0	\$0
Oregon Energy Efficiency Rider	\$0	\$0
Idaho Power Funds	\$1,391,677	\$1,370,141
Total Program Costs—All Sources	\$1,391,677	\$1,370,141
<b>Program Levelized Costs</b>		
Utility Levelized Cost (\$/kWh)	\$0.125	\$0.129
Total Resource Levelized Cost (\$/kWh)	\$0.184	\$0.172
<b>2013 Benefit/Cost Ratios</b>		
Utility Benefit/Cost Ratio	0.95	
Total Resource Benefit/Cost Ratio	0.74	
<b>Program Characteristics</b>		
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 2013, 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 US DOE weatherization program. The DOE program is managed through 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, pipes, furnace tune ups,

furnace modification, furnace replacement, and the installation of CFLs. 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, pipes, furnace tune-ups, furnace modification, furnace replacement, and CFLs. 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 2012 Annual Report*, dated April 1, 2013, located in *Supplement 2: Evaluation*. The new *Weatherization Assistance for Qualified Customers 2013 Annual Report* will be filed on April 1, 2014.

## 2013 Activities

During 2013, CAP agencies weatherized 243 electrically heated homes in Idaho and 8 in Oregon, totaling 251 weatherized homes. Two Idaho buildings and one Oregon building housing non-profit organizations that serve special-needs populations were weatherized in 2013.

In 2013, Idaho Power specifically focused on addressing recommendations from the impact and process evaluations and feedback received at the 2012 IPUC workshops concerning WAQC. The program pursued activities related to updating the audit tool for more accurate estimates of energy savings and increased program effectiveness as recommended by both an impact evaluation conducted by D&R International and a process evaluation conducted by Johnson Consulting Group.

Results were made available to Idaho Power in 2013 regarding the impact evaluation. The evaluation considered 2011 savings results and estimated the usefulness of the DOE-approved EA4 Energy Audit Program (EA4) calculation methodology, as used in 2011, for ex-ante<sup>4</sup> savings estimates. D&R International recommended converting to the use of the DOE-approved EA5, which ranks heating measures and duct improvements by the savings-to-investment ratio (SIR) and evaluates architectural measures prior to evaluating improvements to heating, duct system, and building repairs. D&R International also recommended improving EA5 using bin weather data rather than straight heating degree-day methodology. Results from the process evaluation were made available to Idaho Power later in 2013 regarding program satisfaction and potential marketing.

To address potential changes, two meetings were held at Idaho Power with weatherization managers, CAP agency executive directors, Community Action Partnership Association of Idaho, Inc. (CAPAI) staff, Idaho Power analysts, and energy efficiency personnel. The meeting agendas included ways to

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<sup>4</sup> Ex-ante is Latin for beforehand.

improve the cost-effectiveness of the program while serving special needs' customers effectively and adhering to IPUC Order No. 29505, the DOE, and state WAP guidelines.

CAPAI held an additional utility summit in December at which Idaho Power, contractors, agency personnel, CAPAI, and the other Idaho utilities that provide weatherization program participated. Attendees reviewed the recommendations from the workshops associated with Case No. GNR-E-12-01 and IPUC Order No. 32788 and discussed the plans to implement process improvements.

The cover story for the May/June issue of the *Home Energy* national magazine, "Idaho Power Builds Strong Partnership for Success in Weatherization," credited relationships with local CAP agencies and contractors in Idaho Power's service area for helping Idaho Power provide weatherization projects that benefit Idaho Power customers.

### Cost-Effectiveness

The WAQC program continues to be not cost-effective as a consequence of the estimated savings per home that resulted from the 2012 impact evaluation. Until further analysis of 2012 projects is complete, the 2,684 kWh per home from the impact evaluation will be used for reporting and cost-effectiveness calculations. Using the savings value from the impact evaluation is consistent with Recommendation No. 1 from IPUC staff's report included in IPUC Order No. 32788.

The recommendations from IPUC staff's report and IPUC Order No. 32788 are used for cost-effectiveness analysis for 2013. These recommendations include:

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

As a result of the August and October meetings with weatherization managers where prioritization of issues related to the 2012 impact evaluation were discussed, it was agreed that a more comprehensive analysis of first-year billing data would be undertaken by Idaho Power to better understand actual realized savings resulting from the WAQC program. The additional analysis will provide increased insight into savings realized per home while addressing the effects of home type, climate, and change in occupancy, which were not specifically addressed in the impact analysis. Additionally, the use of a control group to help identify changes in consumption of weatherized homes not captured by the billing analysis will be employed consistent with Recommendation No. 12 from the IPUC staff's report included in Order No. 32788. This analysis work will be ongoing during 2014. The results will be useful for a cost-effective analysis and will help inform potential program design changes that may improve cost-effectiveness.

For 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 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 40 homes for feedback about the program. When customers were asked how much they learned about saving electricity, 29 answered they learned “a lot” or “some.” When asked about how many ways they tried to save electricity, 28 responded “a lot” or “some.”

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

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

In 2013, Idaho Power administered a process evaluation of the WAQC program through the third-party contractor Johnson Consulting Group. The contractor gathered data from a variety of sources, including reviews of program materials, the program database, and in-depth interviews with key staff and stakeholders from May through August 2013. In addition, Johnson Consulting Group conducted a literature review about low-income program NEBs and cost-effectiveness policies used in other jurisdictions.

The evaluation results indicate the program is operating efficiently and effectively, with positive feedback from the CAP agencies and customers regarding the quality of the measures installed and the overall program implementation. These results found the WAQC program is filling a need in the low-income community, with most CAP agencies reporting they could serve more customers if overall funding levels were increased. The report concluded that accurately determining the program’s overall cost-effectiveness is the overwhelming concern of both Idaho Power and CAP agency staff.

As a result of this evaluation, Johnson Consulting Group provided the following recommendations for program improvement:

- Field a customer survey to assess major indicators of customer satisfaction, program operations, and track critical demographic information.
- Develop a consistent customer satisfaction feedback survey and distribute it to all CAP agencies to allow for consistent reporting and tracking for all participating CAP agencies.
- Improve current database tracking system to more accurately capture the key data already available on participant intake forms as well as capture more details regarding measures installed for health and safety.
- Conduct a market potential study to determine the size and scope of the low-income market segment in Idaho Power’s service area.

- Revise the current approach to calculating measure savings. Idaho Power should either consider using a different software tool that will more accurately capture the savings associated with these measure installations or use a deemed savings method to report the savings for each measure.
- Consider using the REM-Design software in Oregon as an alternative to EA5 as a way to both standardize the approach used in Oregon and provide more consistent energy-savings estimates.
- Make adjustments to the cost-effectiveness calculations to be more consistent with industry best practices and review the calculations of NEBs provided in the *Literature Review Addendum*.

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

## 2014 Strategies

While Idaho Power incorporates evaluation results, it plans to selectively market WAQC throughout 2014. The program is promoted at resource fairs, community special-needs populations' service provider meetings, and CAP agency functions in an attempt to reach customers who may benefit from the program. Marketing for this program is conducted in cooperation with weatherization managers.

Idaho Power will continue working in partnership with the Idaho Department of Health and Human Services, 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 also apply recommendations from a third-party process evaluation completed by Johnson Consulting Group in October 2013. Recommendations from this process evaluation were to begin the development of a new energy audit tool and to create a new customer satisfaction survey to distribute to all CAP agencies. This new survey will provide consistent feedback from all agencies to the company to be included in future reports. Idaho Power will also contract with the original state programmer of the energy audit tool used in past years to include data-entry points for additional information, as well as update calculation inputs, such as heating degree days and lives of individual measures. These updates may be accepted by the Idaho WAP to incorporate into the current energy audit, EA5.

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

The program specialist 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.

## Weatherization Solutions for Eligible Customers

	2013	2012
<b>Participation and Savings</b>		
Participants (homes)	166	141
Energy Savings (kWh)	303,116	257,466
Demand Reduction (MW)	n/a	n/a
<b>Program Costs by Funding Source</b>		
Idaho Energy Efficiency Rider	\$1,239,132	\$1,048,461
Oregon Energy Efficiency Rider	\$0	\$0
Idaho Power Funds	\$28,659	\$22,094
Total Program Costs—All Sources	\$1,267,791	\$1,070,556
<b>Program Levelized Costs</b>		
Utility Levelized Cost (\$/kWh)	\$0.256	\$0.254
Total Resource Levelized Cost (\$/kWh)	\$0.256	\$0.254
<b>2013 Benefit/Cost Ratios</b>		
Utility Benefit/Cost Ratio	0.46	
Total Resource Benefit/Cost Ratio	0.53	
<b>Program Characteristics</b>		
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 measures in the program and the methods of delivery mirror WAQC. The installation of energy efficiency measures and repairs are allowed as long as the improvements have an 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.

### 2013 Activities

The 2013 program ended the year with 166 weatherization jobs completed. 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.

Table 8 shows the number of jobs and costs associated with measures installed in homes called production costs. Also shown are job average costs and total payments to contractors for the year.

Table 8. 2013 weatherization solutions financial breakdown

Contractor	Number of Jobs	Production Costs	Average Job Cost*	Administrative Payment to Contractor	Total Payment
Energy Zone.....	51	\$ 363,629	\$ 7,130	\$ 36,363	\$ 399,992
Home Energy Management .....	43	272,069	6,327	27,207	299,276
Power Savers.....	47	261,438	5,563	26,144	287,582
Savings Around Power.....	25	137,960	5,518	13,796	151,755
<b>Total.....</b>	<b>166</b>	<b>\$1,035,096</b>	<b>\$ 6,236</b>	<b>\$ 103,510</b>	<b>\$ 1,138,605</b>

\* Average Job Cost is calculated based on the direct cost of installed measures without the administration adder.

Marketing of the program was done several ways in 2013. The program was advertised via program flyers distributed by contractors throughout mobile-home parks and at specific property-management offices. Flyers were also left with previous customers to spread information about the program to families and friends who might be eligible. Word-of-mouth continued to be an effective marketing tool for the program in 2013. 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. Two direct-mail campaigns to customers whose usage patterns indicate their homes are electrically heated were completed in 2013 in the four regions. Information promoting the program also appeared in the postcard for newly purchased homes that was mailed to customers who had moved into a home new to them.

A process evaluation of the program was conducted by Johnson Consulting Group in 2013. Among the recommendations was an improved database tracking system with a revised approach to calculating an SIR and related energy savings and a new company survey to solicit consistent feedback from participants. Program improvement activities and actions related to recommendations from the 2012 D&R International impact evaluation continued during 2013.

To address recommendations and potential program updates from both the formal evaluations and from the IPUC workshops, Idaho Power held two meetings with program stakeholders. In August, representatives from each regional contractor met with Idaho Power's energy efficiency program specialist, department leader, and energy efficiency program analysts to review recommendations and discuss potential updates. A second meeting was held to create a timeline to implement program updates and included a CAPAI representative to the original group.

CAPAI held an additional utility summit in December at which Idaho Power, contractors, agency personnel, CAPAI, and the other Idaho utilities that provide weatherization program participated. Attendees reviewed the recommendations from the workshops associated with Case No. GNR-E-12-01 and IPUC Order No. 32788 and discussed the plans to implement process improvements.

Outcomes from these discussions include Idaho Power developing a third-party contract with the previous energy audit tool creator to revise the tool as recommended by the impact and process evaluations and by the workshop attendees. Needed improvements for the energy audit tool include updated measure lives based on the RTF and DOE standards, new heating equipment replacement calculations, and restructured duct measure savings calculations. Pre- and post-measure information and a maximum support cost to production cost percentage calculation will be written into the program. Additionally, policy changes, such as a 10-percent landlord payment requirement on homes that are not owner occupied and a consistent customer satisfaction survey, will be implemented in 2014.

The program was discussed with EEAG at the May 23 meeting, and recommendations and challenges were further reviewed during the September 18 and November 14 EEAG meetings. The group was generally supportive of the company offering weatherization programs for special-needs customers.

## Cost-Effectiveness

The Weatherization Solutions for Eligible Customers program continues to be not cost-effective as a consequence of the estimated savings per home that resulted from the 2012 impact evaluation of 2011 activities. Until further analysis of 2012 projects is complete, the 1,826 kWh per home average savings from the impact evaluation will be used for reporting rather than the savings calculations from the EA4 tool.

As a result of the cost-effectiveness workshops conducted as part of Case No. GNR-E-12-01 and IPUC Order No. 32788 related to cost-effectiveness issues and low-income weatherization programs, changes to cost-effectiveness inputs were made. While these proceedings were directed primarily with the WAQC type program designs, Idaho Power has used the recommendations that resulted from that case in conjunction with the cost-effectiveness analysis of the Weatherization Solutions for Eligible Customers program because of its similarities to WAQC in both design and customers that it serves. The recommendations from Case No. GNR-E-12-01 are used in cost-effectiveness analyses for 2013. The recommendations include the following:

- Applying a 100-percent NTG value to reflect the likelihood that Weatherization Solutions for Eligible Customers weatherization projects would not be initiated without the presence of a program.
- Including an allocated portion of the indirect overhead costs.
- Applying the 10-percent conservation preference adder.
- Claiming one dollar of benefits for each dollar invested in health, safety, and repair measures.
- Amortizing evaluation expenses over a three-year period.

Other changes made to the cost-effectiveness analysis of the Weatherization Solutions for Eligible Customers program was the alignment of the measure lives with the corresponding RTF measure-life values for weatherization and HVAC measures. The measure lives where there was not an equivalent RTF deemed measure, such as doors and pipe wrapping, were left at DOE values. The resulting overall program weighted measure life increased to 30 years from the previous 25 years. This change to measure lives will also be implemented in the EA4 models for SIR calculations during 2014.

In 2014, an analysis of first-year billing data will be undertaken by Idaho Power to better understand savings realized from the Weatherization Solutions for Eligible Customers program. The company plans a more robust regression analysis than the analysis conducted for the 2012 Weatherization Solutions for Eligible Customers impact evaluation. An additional billing analysis will provide increased insight into savings realized per home while addressing the effects of the small sample size that may have impacted the results of the 2012 impact analysis. Similar to the WAQC impact analysis, additional characteristics may have an impact on first-year savings, including home type, climate, and change in occupancy. The use of a control group may help explain changes in the consumption of weatherized homes that are not captured by the billing analysis or housing and occupancy characteristics will be employed as part of the updated billing analysis consistent with Recommendation No. 12 from IPUC Staff's report included

in Order No. 32788. The updated billing analysis will be ongoing during 2014. The results will be useful for cost-effective considerations and will help inform potential program design changes that may improve cost-effectiveness while assisting in the potential calibration of the EA4 model.

For details on 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 2013, 42 homes were verified, and 32 of those customers reported they learned “a lot” or “some” about using energy wisely in their home. Forty-one reported they had tried “a lot” or “some” ways to save energy in their home.

As in previous years, customer satisfaction surveys were conducted by contractors. Questionnaires were given to the customers after completion of weatherization at the home. Of the 166 participants, 125 provided written feedback about the work done and energy conservation in their home. Results showed most customers were satisfied with the energy upgrades to their homes and they learned about saving energy. They agreed the program was or would be a benefit to them and provide increased comfort. Almost every survey participant expressed thanks for the program.

In 2013, Idaho Power administered a process evaluation of the program through Johnson Consulting Group. Data was gathered from a variety of sources, including reviews of program materials, the program database, and in-depth interviews with key staff and stakeholders during May through August 2013. In addition, Johnson Consulting Group conducted a literature review of low-income NEBs and cost-effectiveness policies used in other jurisdictions.

Evaluation results indicate the program is operating effectively and efficiently throughout most of Idaho Power’s service area, although program participant rates are inconsistent. Some of the regions exceed participation rates. Other regions, particularly those with limited numbers of qualified electrically heated homes, have difficulty finding program participants.

Johnson Consulting Group noted the current database tracking system does not provide the level of detail required to provide a more in-depth analysis for management and tracking purposes. Specifically, the types of measures installed for health and safety, and the number of CFLs installed, were not adequately reported in the current database. Additionally, costs for some measures, such as heat pumps, have risen, but the funding levels have not been increased to reflect these higher installation costs.

Johnson Consulting Group also noted that participating contractors view the current EA4 software audit tool as complicated, difficult to use, and inaccurate. This calls into question whether this tool adequately captures all of the energy savings associated with measure installations and may be missing savings from cooling installations.

As a result of this evaluation, Johnson Consulting Group provided the following recommendations for program improvement:

- Conduct a customer satisfaction survey to solicit feedback regarding the Weatherization Solutions for Eligible Customers program.
- Improve the current database tracking system to more accurately capture the key data already available on participant intake forms.

- Revise the current approach to calculating ex-post<sup>5</sup> savings estimates. Consider using a different software tool that will more accurately capture the savings associated with these measure installations, or use a deemed-savings methodology that will report the savings for each measure.
- Consider including NEB values into its overall cost-effectiveness calculations.
- Consider revising requirements regarding average cost per measure imposed on the agencies to reflect rising costs of those measures that lead to significant energy savings, such as heat pumps.
- Continue to market this program through bill inserts throughout its service area as a way to supplement the individual marketing activities conducted by each contractor.
- Provide information about the program on the Idaho Power website regarding program eligibility or income guidelines. This will ensure a consistent messaging strategy across the entire program.
- Review the current program eligibility guidelines to determine if moving income requirements down to 150 percent of the federal poverty level will be a cost-effective approach.

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

## 2014 Strategies

The following are 2014 strategies:

- Move forward with plans to update to the energy audit tool as recommended.
- Continue the program using the current energy audit program until a new energy audit tool is completed to more accurately determine energy savings.
- Test and compare estimated annual savings throughout the year.
- Develop a satisfaction survey that requests consistent feedback from program participants throughout the year to help determine customer knowledge levels and the potential for behavior change. This information may be used to determine future marketing techniques and program improvements.
- Offset the cost of weatherization by requiring a financial contribution from each landlord receiving weatherization services on a non-owner occupied residence.
- Consider NEBs for inclusion in Idaho Power's cost-effectiveness calculations for 2014.

Market the program as needed based on contractor production schedules and waiting lists per region. Strategies similar to 2013 will be considered either service-area wide or regionally.

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<sup>5</sup> Ex-post is Latin for after the fact.

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## COMMERCIAL/INDUSTRIAL SECTOR OVERVIEW

### Description

Idaho Power's commercial sector consists of over 66,670 customers. In 2013, the commercial sector's number of new customers increased by 813, an increase of a little over 1 percent from 2012. The energy usage of commercial customers varies from a few kWh each month to several hundred thousand kWh per month. The commercial sector represents 27 percent of Idaho Power's total electricity usage in 2013.

The industrial and special-contract customers are Idaho Power's largest individual energy consumers. There are approximately 111 industrial customers. These customers can use millions of kWh a month and account for 17.2 percent of Idaho Power's total electricity usage in 2013.

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, motors, building shell, 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 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. 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 12 cents per kWh for first-year savings, whichever is less. 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.

FlexPeak Management, a demand response program, is 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, contracts directly with Idaho Power's commercial and industrial customers to achieve demand reduction.

The Custom Efficiency program continued to represent the highest total energy savings among commercial and industrial programs in 2013, with a total savings of 21,370 MWh. The Easy Upgrades program continued to lead the sector in projects completed with 1,392 projects. Combined, all programs completed 1,524 projects that achieved 53,421 MWh of energy savings. Table 9 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 9. 2013 commercial/industrial program

Program	Participants	Total Cost		Savings	
		Utility	Resource	Energy (kWh)	Demand (MW)
<b>Demand Response</b>					
FlexPeak Management.....	100 sites	\$ 2,743,615	\$ 2,743,615	n/a	48.0
<b>Total .....</b>		<b>\$ 2,743,615</b>	<b>\$ 2,743,615</b>		<b>48.0</b>
<b>Energy Efficiency</b>					
Building Efficiency .....	59 projects	\$ 1,507,035	\$ 3,942,880	10,988,934	1.1
Easy Upgrades.....	1,392 projects	3,359,790	6,738,645	21,061,946	
Custom Efficiency.....	73 projects	2,466,225	5,771,640	21,370,350	2.4
<b>Total .....</b>		<b>\$ 7,333,050</b>	<b>\$ 16,453,165</b>	<b>53,421,230</b>	<b>3.5</b>

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

2013 was a challenging year for Idaho Power's commercial and industrial energy efficiency programs. Additionally, 2013 demonstrated that over time, there will be annual variability in achieved energy savings from year to year in this market sector. Factors that contributed to the challenges included a soft economic environment in which business customers operate; an increase in new construction that decreased the need for some Idaho Power trade allies to participate in Idaho Power retrofit programs; and a few of Idaho Power's largest industrial customers that normally saved the most energy through Idaho Power's programs not completing any large projects in 2013.

Idaho Power program managers recognized early in 2013 that it would be a challenging year. The company took action to drive savings, including two new program offerings in Custom Efficiency—Refrigeration Operators Coaching for Energy Efficiency and Streamlined Custom Efficiency (SCE). Building Efficiency sponsored a number of outreach training sessions conducted by the IDL. Easy Upgrades conducted "It's So Easy Lighting Campaign" in the Pocatello area designed to increase lighting projects. Building Efficiency coordinated the first Boise Kilowatt Crackdown™. 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 2013. 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. In early 2014, Custom Efficiency will launch a third new initiative—Wastewater Energy Efficiency Cohort. All of these activities will help to drive program participation in 2014.

The Green Rewind offering is available to Idaho Power's agricultural, commercial, and industrial customers. The sectors' combined 57 Green Rewind motors achieved a total annual savings of 149,579 kWh in 2013, with 24 commercial/industrial sector motors contributing 83,114 kWh per year and 27 irrigation sector motors contributing 66,465 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, nine service centers have signed on as Green Motors Practice Group (GMPG) members. 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) 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. 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.

The Regional Technical Forum (RTF) reviewed the Green Motor Rewinds measures in 2013 and updated the methodology used to determine deemed savings. The initial analysis used the National Electrical Manufacturers Association (NEMA) Premium as the efficient-case motor efficiency. The new, approved method estimates motor efficiency weightings for each hp size based on the count of motors entering the program. This change caused a slight increase in savings for each hp. Additionally, the RTF approved a recommendation from their consultant to increase the measure life by calculating the motor life in hours divided by the annual hours operation.

Phase II of the Idaho Office of Energy Resources (IOER) K-12 Energy Efficiency Project for public schools in Idaho Power's service area concluded in 2013. In July 2011, Idaho Power entered into an agreement with the IOER that provided for the accumulation and reinvestment of energy efficiency incentive payments from Idaho Power's qualified energy efficiency programs for K-12 projects. These accumulated incentives from Phase I were used for additional cost-effective energy efficiency projects implemented in public school buildings within Idaho Power's service area. These projects are referred to as Phase II projects.

Idaho Power continued research on the potential to expand incentives in the Building Efficiency program in 2013 for multifamily dwellings in new construction and major remodel projects. Idaho Power contracted with the IDL to conduct the research in 2013. The results indicate natural gas should be used as the baseline in determining energy savings for multifamily measures in most new construction projects. A natural gas baseline will result in minimal energy savings based on cooling measures alone. The low energy savings makes it difficult for these measures and projects to pass cost-effectiveness tests. If analyses show cooling savings alone will result in cost-effective measures, new measure offerings will be added to Building Efficiency programs in 2014. The company will explore the possibility of offering multifamily energy efficiency measures in existing buildings with electric heat.

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. Fifty-seven percent of Idaho Power's large commercial and industrial customers surveyed in 2013 for the Burke Customer Relationship survey indicated Idaho Power was meeting or exceeding their needs in offering energy efficiency programs. Forty-eight percent of survey respondents indicated Idaho Power was meeting or exceeding their needs with information on how to use energy wisely and efficiently. Sixty-nine percent of respondents indicated Idaho Power was meeting or exceeding their needs by encouraging energy efficiency with its customers. Overall, 75 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 40 percent of these customers said Idaho Power was meeting or exceeding their needs in offering energy efficiency programs. Fifty-seven percent of survey respondents indicated Idaho Power was meeting or exceeding their needs with information on how to use energy wisely and efficiently. Fifty-one percent of respondents indicated Idaho Power was meeting or exceeding their needs with encouraging energy efficiency with its customers. Overall, 23 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, 98 percent are "very" or "somewhat" satisfied with the program.

In 2014, Idaho Power will continue to look for opportunities that enhance program offerings. Custom Efficiency will launch a new Waste Water Energy Efficiency Cohort program in January 2014. Easy Upgrades will analyze the findings of the 2013 process evaluation. Training, education, and outreach will continue to be a focus aimed at driving projects across all programs. Additionally, the company will analyze ways to improve Idaho Power programs based on customer and trade ally feedback, as well as internally driven research.

In 2013, Hansa GCR conducted a phone survey of non-participants of the Idaho Power commercial energy efficiency programs. The goal of the study was to gain a better understanding of why customers do not participate in energy efficiency programs and how best to increase program participation. A total of 303 commercial customers were interviewed. Of the non-participants surveyed, 71 percent were unaware of Idaho Power's energy efficiency programs. However, when asked how important it is that Idaho Power offer energy efficiency programs on a 0 to 10 scale, 61 percent of respondents indicated importance was high with a rating between 8 and 10. The non-participants were also asked how likely they were to participate in an energy efficiency program on a 0 to 10 scale. Respondents' likelihood to participate was mostly neutral, with 32 percent giving a rank between 0 and 3. Forty-two percent gave a mid-range ranking between 4 and 7. When asked what their most preferred method of communication was, 44 percent of respondents preferred a letter or brochure in the mail.

Customers completed a paired comparisons exercise to evaluate the relative importance of potential barriers and motivators for participation. Fifty-eight percent of non-participants ranked unfamiliarity with the programs as the biggest barrier to participation. Sixty-one percent of non-participants ranked lower energy costs as the biggest motivator to participation. Results of the non-participant survey can be found in *Supplement 2: Evaluation*.

## Building Efficiency

	2013	2012
<b>Participation and Savings</b>		
Participants (projects)	59	84
Energy Savings (kWh)	10,988,934	20,450,037
Demand Reduction (MW)	1.1	2.3
<b>Program Costs by Funding Source</b>		
Idaho Energy Efficiency Rider	\$1,489,195	\$1,579,121
Oregon Energy Efficiency Rider	\$17,839	\$13,451
Idaho Power Funds	\$0	\$0
Total Program Costs—All Sources	\$1,507,035	\$1,592,572
<b>Program Levelized Costs</b>		
Utility Levelized Cost (\$/kWh)	\$0.012	\$0.007
Total Resource Levelized Cost (\$/kWh)	\$0.032	\$0.036
<b>Program Life Benefit/Cost Ratios</b>		
Utility Benefit/Cost Ratio	6.84	
Total Resource Benefit/Cost Ratio	2.68	
<b>Program Characteristics</b>		
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, and control-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-contract customers are eligible to participate. Program marketing is targeted toward architects, engineers, and other design professionals.

Fourteen 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, premium-efficiency HVAC units, additional HVAC-unit efficiency bonuses, efficient chillers, air-side economizers, reflective roof treatment, high-performance windows, energy-management control systems, demand-controlled ventilation, and variable-frequency drives (VFD).

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. Sessions are outlined in the IDL section of *Supplement 2: Evaluation*.

## 2013 Activities

The Building Efficiency program completed 59 projects, resulting in 10,988,934 kWh in annual energy savings in Idaho. Although the program showed a decrease in kWh savings from 2012, the savings are in alignment with previous years. The abnormal energy savings that occurred in 2012 were due to some large, multi-year construction projects being completed.

In 2012, participant focus groups with architects, engineers, and designers and phone interviews with building owners and operators were conducted. Based on the outcome of those activities, some changes were made to the Building Efficiency website to improve navigation and increase overall usability in 2013.

The Building Efficiency program's last major modification was in 2011. New construction and major renovation project design and construction life is much longer than small retrofits and requires consistency in program measures and operation. Program consistency reduces confusion for customers with long construction and project timelines.

Idaho Power contracted with ADM to conduct an impact evaluation of 2011 savings. Results were provided in 2012. Based on the results, the following recommendations were addressed in 2013. Prescriptive savings formulas were revised for air-side economizers, energy-management control systems and demand-controlled ventilation in 2013. In addition, 2012 savings were updated prior to reporting savings in the *Demand-Side Management 2012 Annual Report*. Idaho Power contracted with ADM to provide a TRM in 2013 to address recommendations provided in the ADM impact evaluation in 2012.

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-one technical training lunches were completed in 2013, with 234 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 Building Simulations User Group through the IDL. Topics and sessions are outlined in the IDL section of *Supplement 2: Evaluation*.

Additional success stories were added to the Idaho Power website in 2013, with one specific to new construction titled *Nampa, Idaho, sets an energy-efficient course for its public-service buildings*. Copies of the 2013 success stories are provided in *Supplement 2: Evaluation*.

Building Efficiency has teamed up with BOMA of Boise and NEEA to offer a Kilowatt Crackdown™ competition for office buildings over 15,000 square feet (ft<sup>2</sup>) located in the Treasure Valley. Forty-three buildings competed in the competition in 2013, which included benchmarking their building in ENERGY STAR® Portfolio Manager—an interactive energy-management tool that allows the tracking and assessing of energy and water consumption—and implementing low-cost and no-cost efficiency measures in their buildings throughout 2013. Participating buildings had access to an energy coach, scoping audits were provided on their building, and an energy plan was created to achieve savings. The purpose of this commercial building energy competition is to facilitate and educate businesses on wise energy use. The competition period concluded on December 31, 2013. In early 2014, the participants will again benchmark their buildings in ENERGY STAR Portfolio Manager to determine the savings they achieved in 2013. Idaho Power has contributed marketing and technical expertise to help ensure the success of the competition. Idaho Power coordinated the

Kilowatt Crackdown launch event, inviting the media to attend and issuing an April 11 press release—*Commercial Property Owners and Managers Participate in “Kilowatt Crackdown”*—that generated media coverage. Idaho Power worked with NEEA to produce banners for participants to display outside their buildings. Results of the Kilowatt Crackdown will be available in May 2014.

In 2013, Idaho Power generated media exposure and recognition for those companies that received incentive checks through the Building Efficiency program, such as the College of Western Idaho and the Shoshone–Bannock Hotel and Event Center. The hotel project was featured in an Idaho Power YouTube video and the tribes’ efforts recognized on the cover of the *Connections* customer newsletter sent with monthly bills.

The Building Efficiency program supports a number of associations and events, including placing advertisements in the American Institute of Architects (AIA) and sponsoring both the AIA’s Honor award and the Grow Smart awards. The Building Efficiency program also sponsored the BOMA symposium and the Association of Idaho Cities Conference. Additionally, print advertisements were placed in the Idaho Business Review.

The Building Efficiency program researched expanding measure offerings for new construction and major remodel projects to include multifamily dwellings. IDL research determined a baseline for new multifamily projects and provided modeled savings and estimated incremental costs for measures. Multiple iterations of savings and costs were required, taking more time than originally anticipated, which only allowed for a preliminary analysis in 2013. Cost-effectiveness of the various energy-savings measures is currently being evaluated. If the research shows the measures are cost effective, new measure offerings could be added to the program in 2014. The multifamily report is provided in the IDL section of *Supplement 2: Evaluation*.

## Cost-Effectiveness

To calculate energy savings, the Building Efficiency program 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 comparing the measure at code and at 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 (kW) reduction as the unit being used. For 2013, Idaho Power’s incentive structure remained consistent with the 2011 program. Complete measure-level details for cost-effectiveness can be found in *Supplement 1: Cost-Effectiveness*.

In 2013, ADM was contracted to provide savings and costs related to existing and new measures for the Building Efficiency program in a TRM. The TRM will be thoroughly evaluated in 2014, and cost-effectiveness analyses will be performed on all measures addressed through the TRM.

## Customer Satisfaction and Evaluations

Building Efficiency continued random installation verification on over 10 percent of projects in 2013. 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 8 of the 59 projects, which encompass approximately 13 percent of the total completed projects in the program. Out of the eight projects verified, all 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 seven of the eight projects. Only one project was installed where there was a decrease from what was declared. The project involved the installation of additional lighting fixtures. The total wattage installed still remained within the program guidelines, and the project was given incentives at the appropriate level. Random project installation verification will continue in 2014.

## 2014 Strategies

The following strategies are planned for 2014. The Building Efficiency program will complete the following:

- Make program changes once the TRM and cost-effectiveness result have been evaluated.
- Evaluate the cost-effectiveness for multifamily, new-construction project measures. If measures are determined cost effective, they will be included in the program in 2014.
- 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 in the Boise, Pocatello, and Sun Valley markets.
- Support organizations focused on promoting energy efficiency in commercial construction.
- Continue to provide support in finalizing the Kilowatt Crackdown competition results and awards ceremony in conjunction with NEEA and BOMA.
- Film the Hailey Interpretive Center as part of a new commercial video showing how energy efficiency can be incorporated in new construction or as a retrofit.
- Reach architects and engineers directly (the primary trade allies for the program), through direct-mail letters describing the highlights and benefits of the program.
- Place print advertisements in the *Idaho Business Review* when the editorial content is dedicated to commercial property developers and engineers/architects.

## Custom Efficiency

	2013	2012
<b>Participation and Savings</b>		
Participants (projects)	73	126
Energy Savings (kWh) <sup>a</sup>	21,370,350	54,253,106
Demand Reduction (MW)	2.4	7.6
<b>Program Costs by Funding Source</b>		
Idaho Energy Efficiency Rider	\$2,402,903	\$923,050
Oregon Energy Efficiency Rider	\$60,245	\$115,866
Idaho Power Funds	\$3,077	\$6,053,665
Total Program Costs—All Sources	\$2,466,225	\$7,092,581
<b>Program Levelized Costs</b>		
Utility Levelized Cost (\$/kWh)	\$0.010	\$0.012
Total Resource Levelized Cost (\$/kWh)	\$0.024	\$0.021
<b>Program Life Benefit/Cost Ratios</b>		
Utility Benefit/Cost Ratio	7.85	
Total Resource Benefit/Cost Ratio	3.47	
<b>Program Characteristics</b>		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2003	

<sup>a</sup> Includes kWh savings from Green Rewind.

## 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 as applicable to the facility. 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-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. All lighting projects are pre- and post-inspected by an Idaho Power contractor or an Idaho Power representative. Incentive levels for the Custom Efficiency program remained at 70 percent of the project cost, or 12 cents per kWh for first-year savings, whichever is less.

## 2013 Activities

Custom Efficiency experienced a challenging year in 2013. A total of 73 projects were completed by 55 customers, including 1 Oregon project. Program energy savings decreased in 2013 by 60 percent over 2012, from 54,253 MWh to 21,370 MWh.

There were several contributing factors for the decrease in savings from 2012 to 2013. Savings for the Custom Efficiency program can vary greatly based simply on the timing of projects. For example, in 2012, one customer alone saved about 20,000 MWh. Without these projects, the 2012 Custom Efficiency savings would have been significantly lower and closer to the savings realized in 2013. The program currently has a participant with four pending projects due to be completed in 2014, representing savings of approximately 25,000 MWh. There were 152 approved applications for Custom Efficiency projects at the end of 2013, representing almost 60,000 MWh of potential 2014 savings.

The Custom Efficiency program may also have reached some level of saturation through program maturation, as over 90 percent of the large-power service customers have engaged with 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 10 indicates the program's 2013 annual energy savings by primary project measures.

Table 10. 2013 Custom Efficiency annual energy savings by primary project measure

Program Summary by Measure	Number of Projects	kWh Saved
Lighting.....	34	9,777,630
Refrigeration.....	22	3,786,819
HVAC .....	4	2,788,805
CFL .....	5	1,555,225
Compressed Air .....	2	983,931
Fan.....	2	419,060
Motors .....	1	127,939
Exit Sign.....	1	121,617
Pump.....	1	99,331
Other .....	1	1,626,879
<b>Total <sup>a</sup>.....</b>	<b>73</b>	<b>21,287,236</b>

<sup>a</sup> 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. Because the link between energy audits and the completion of projects is historically significant, Idaho Power re-evaluated its current offerings and strengthened them where appropriate. In 2013, the reimbursement for detailed audits increased from a 50-percent reimbursement, or \$10,000, whichever is less, to a 75-percent reimbursement, or \$12,500, whichever is less. Scoping audit details remain unchanged for 2013. In 2013, three scoping audits and six detailed audits were completed on behalf of Idaho Power customers, including one facility in Oregon. These audits identified over 9,500 MWh per year of savings potential, and all but one of the customers engaging in these audits have used the information to move forward with projects ready or have expressed interest in moving forward in the near future. Scoping audits were also provided to eight facilities as part of the new Refrigerator Operator Coaching for Energy Efficiency (ROCEE) offering. In addition, self-audit worksheets were posted to the Idaho Power website to help facilitate the efficient gathering of information pertinent to identifying

energy efficiency opportunities. Customers and/or CRs are encouraged to fill these out and submit them to a Custom Efficiency program engineer who can assist in identifying areas of opportunity.

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 also co-funds the trainings, which allows twice the trainings in Idaho Power's service area. Additionally, Idaho Power pays customers' attendance fee in the classroom-based training sessions. Nine technical classroom-based training sessions were completed in 2013. Two of these classes were two-day classes, and the rest were one-day classes. Topics included compressed air, chilled water systems and cooling towers, pump systems, pneumatic conveyance, VFDs, data-center efficiency, fan system efficiency, and industrial refrigeration. A schedule of training events is posted on Idaho Power's website.

The level of attendance in 2013 remained high, with 125 Idaho Power-sponsored seats filled with 110 end-use customers and various Idaho Power staff, IOER staff, consultants, and trade allies. Customer feedback indicated average overall satisfaction levels of 100 percent.

Additionally, 2013 encompassed Phase III of the webinar pilot plan coordinated by NEEA. Twelve webinars were presented free to all attendees. Topics included VFDs; compressed-air energy management; energy efficiency in data centers; boiler and chiller maintenance for maximum efficiency; improving power factor; and energy-management topics, including developing an energy plan, energy efficiency investment analysis, and energy management opportunities for industrial customers. There were 42 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 9 shows the number of Idaho Power-sponsored attendee seats filled as compared to other utility companies for the 2013 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 2013* included in *Supplement 2: Evaluation*.

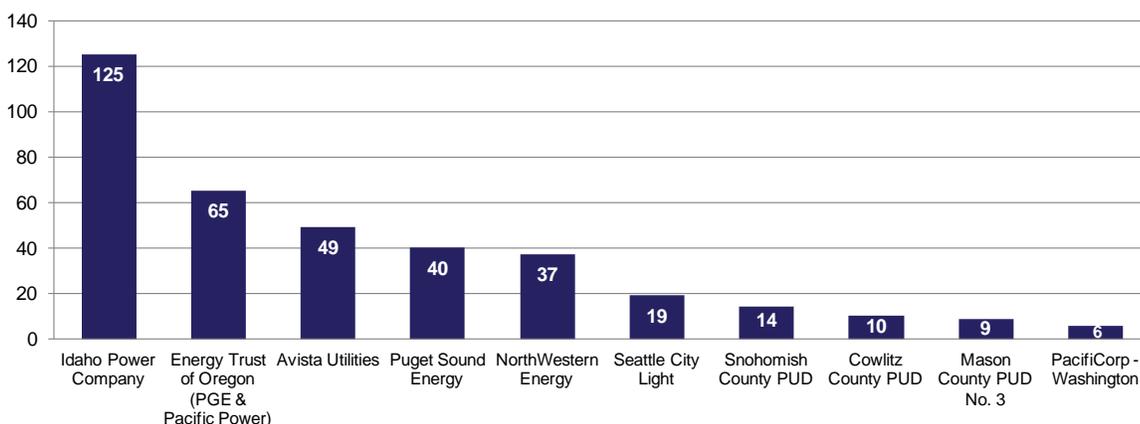


Figure 9. NEEA chart of attendees (seats filled) by attendee sponsor<sup>6</sup>

<sup>6</sup> Data source: *NEEA Regional Industrial Training Update*, December 2013.

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 24 Green Rewind motors in the commercial/industrial sector in 2013, contributing 83,114 kWh in annual savings.

The Custom Efficiency program has achieved a high service-area penetration rate. As stated previously, through 2013, over 90 percent of the large-power service customers have submitted applications for a project. Idaho Power engineers have met with the remaining viable Rate 19 and special-contract customers to discuss energy efficiency programs and opportunities within customer facilities and are actively working to support these customers in new ways.

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 is a two-year engagement with the participating customers. ROCEE provided a series of technical training workshops with a cluster (cohort) training approach. In addition, 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. Energy savings are tracked via an energy model that was constructed for each participating facility. The incentives and the energy savings for the offering are paid at the end of year 1 (2014) and the end of year 2 (2015) based on the documented savings from the energy model.

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 small VFDs.

2013 was the second 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.

Marketing efforts continued in 2013. By definition, "custom" denotes the need for individual, time-intensive treatment of each customer within this segment. Mass-marketing tends to be less successful, while one-to-one positive relationships and interactions with Idaho Power personnel are critical.

The company continues to support custom projects with public relations, media, events, and success stories that are posted on Idaho Power's website. The success stories can be downloaded and printed by customers for their own distribution. In addition, the Custom Efficiency program is included in advertisements that promote all of the commercial programs together. These advertisements were placed in the *Idaho Business Review*, the *Business Insider*, and, in 2013, the *Horizon Edition Magazine*.

## 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 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 major customer representatives (MCR) solicit customer satisfaction feedback for the Custom Efficiency program. This is authenticated in customers' willingness to participate in the Custom Efficiency program posting the customers' success stories on the Idaho Power website. In 2013, seven new success stories describing energy efficiency projects were developed, and three of them were posted on the company's website. An example of a success story posted in 2013, titled *Nampa, Idaho, sets an energy-efficient course for its public-service buildings*, refers to a project the City of Nampa completed. Idaho Power provided \$90,756 in total incentives for energy efficiency measures that reduced costs, and the City of Nampa is expected to save over \$34,000 in annual utility bills. The facilities management superintendent said, "Working with Idaho Power is very easy, very nice." Copies of the 2013 success stories are provided in *Supplement 2: Evaluation*.

Qualitative research for the Custom Efficiency program began in late 2013. This research involved one-on-one interviews with program participants based on nature of the equipment installed and industry. In addition, one-on-one interviews with eligible business customers that have not yet participated in the Custom Efficiency program began in early 2014. Comprehensive results of all findings related to the Custom Efficiency program research will be delivered later in the first quarter of 2014.

## 2014 Strategies

Recruiting was initiated in 2013 for a planned wastewater sector offering under the Custom Efficiency program. Idaho Power met with several key municipalities to garner interest for a Wastewater Energy Efficiency Cohort (WWEEC). Custom Efficiency plans to launch the program offering in 2014 aimed at expanding support for customers implementing energy efficiency within their wastewater facilities. WWEEC will provide highly relevant hands-on energy efficiency and energy-management training to key individuals whose actions have a direct bearing on the energy performance of energy-intensive systems. Using services provided by Cascade Energy, WWEEC will engage 11 large customer facilities to reduce energy and strengthen the energy-management component associated with their wastewater facilities. WWEEC is proposed to be similar to ROCEE in that a series of technical training workshops will be conducted in a cohort training approach, focusing on low-cost or no-cost measures that may be more behavioral or O&M related.

The first year of energy savings for the ROCEE offering will be reported and incentives paid by mid-year.

In 2014, Idaho Power plans to continue expanding the Custom Efficiency program through a number of activities and through the 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, identify potential ways the customer can reduce energy costs, and drive program participation. Idaho Power will continue to provide site visits and energy audits for project identification; technical training for customers; funding for detailed energy audits for larger, complex projects; and delivery of NEEA-sponsored energy improvement practices to customers. Additionally, program staff will continue to engage and support the Center for Advanced Energy Studies (CAES), the IDL, and the Boise State University Industrial Assessment Center.

Other 2014 marketing activities will include two new marketing pieces for Idaho Power customer representatives to give to commercial/industrial customers. One flyer explains “streamlined custom efficiency” and covers projects for compressed air, VFDs, refrigeration controller, and fast-acting doors incentives. The other flyer explains the steps involved in the execution, reporting, and follow-up of facility tune-up offerings.

Each year, the company designs and pays for a “Top 10” advertisement that appears in the *Idaho Business Review*. This advertisement publicly congratulates companies that had the most energy savings throughout the year. Success stories will continue to be written and produced throughout 2014. 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 as PDFs so the highlighted businesses can print and use them to publicize their energy-efficient projects. In addition to these success stories, Idaho Power assists with public-relations opportunities, creating certificates for display within the building and having an Idaho Power representative speak at press events.

Another internship will be offered in summer 2014 and will involve activities similar to the 2013 internship. These internships are important mechanisms that help drive work-force development in the energy efficiency profession.

## Easy Upgrades

	2013	2012
<b>Participation and Savings</b>		
Participants (projects)	1,392	1,838
Energy Savings (kWh)	21,061,946	41,568,672
Demand Reduction (MW)	n/a	4.7
<b>Program Costs by Funding Source</b>		
Idaho Energy Efficiency Rider	\$3,258,427	\$5,150,422
Oregon Energy Efficiency Rider	\$101,363	\$199,331
Idaho Power Funds	\$0	\$0
Total Program Costs—All Sources	\$3,359,790	\$5,349,753
<b>Program Levelized Costs</b>		
Utility Levelized Cost (\$/kWh)	\$0.014	\$0.012
Total Resource Levelized Cost (\$/kWh)	\$0.029	\$0.020
<b>Program Life Benefit/Cost Ratios</b>		
Utility Benefit/Cost Ratio	7.67	
Total Resource Benefit/Cost Ratio	3.40	
<b>Program Characteristics</b>		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2007	

## Description

The Easy Upgrades program is Idaho Power's commercial and industrial sector prescriptive measure program. 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, plug loads, and food service equipment. 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 taking service under Rate Schedule 7 (Small General Service), Rate Schedule 9 (Large General Service), Rate Schedule 19 (Large Power Service), and special-contract customers are eligible. For projects with expected incentive payments of more than \$1,000 or that contain VFDs or non-standard lighting measures, applicants must submit a pre-approval application prior to initiating the project. For projects not requiring pre-approval, customers may elect to skip the pre-approval application process and submit their payment application and accompanying documentation. Under the Easy Upgrades program, customers may assign their incentive payment to a third party (e.g., their contractor or supplier), as approved by Idaho Power.

## 2013 Activities

Several measures were added in 2013. The added measures included offering incentives for changing out qualifying T-8 lamps to reduced wattage T-8 lamps, T-5 High Output (T-5HO) lamps to reduced wattage T-5HO lamps, screw-in metal halide lamps, and T-8 to LED refrigeration/case lighting.

Incentives for permanent-fixture decommissioning were offered as a way to encourage proper lighting design.

Easy Upgrades experienced a reduction in program participation and energy savings in 2013. The slight decline in the number of program participants compared to the sharper decline in energy savings demonstrates that 2013 projects resulted in less kWh savings per project than in the prior two program years.

As the year progressed, there was a decline in project applications submitted to the Easy Upgrades program. Program staff interviewed several trade allies to determine the reason for the decline and discovered two main reasons. The trade allies reported the economy had picked up enough in other areas, resulting in them pursuing work elsewhere rather than on lighting retrofit jobs. The second reason regarded the lighting trade allies in rural areas, who reported that surrounding utilities were offering higher incentives.

The trend toward fewer participants and energy savings prompted Idaho Power to conduct a targeted-town approach focused on lighting audits. The Pocatello area was selected for the *It's So Easy Lighting Campaign* targeted-town approach. In preparation for the week-long event, CRs identified customers who would benefit from a lighting retrofit. The customers were offered a free lighting audit of their facility, a lighting consultation, or an expedited inspection of a proposed project. The local lighting trade allies were informed of the event and asked to participate. Trade allies could nominate customers who would benefit from the event and/or request Idaho Power support their efforts to promote energy efficiency lighting retrofits.

The *It's So Easy Lighting Campaign* resulted in many positive outcomes for the program. Fifty site visits were made to customer facilities. Customers indicated they valued and appreciated that Idaho Power made this offer. Customers gained tangible project information for moving forward with a lighting retrofit. Trade allies commented they appreciated the dedicated support the program gave them during the event. As a result of this event, the program received a few extra projects submitted for participation, with many others in the queue to be implemented in 2014.

The program increased training in 2013, with 21 program workshops and technical classes conducted across the Idaho Power service area targeting lighting trade allies and large customers. Offerings included seven program workshops, seven Lighting 101 classes, and seven Lighting Controls classes. The 14 technical lighting classes qualified for continuing education credits for eligible, licensed electrician and contractor trade allies. For the first time, the program offered AIA continuing education units (CEU) and promoted the lighting classes to the design community. Also for the first time, the program held technical and program information classes in Salmon and at the Mountain Home Air Force Base (MHAFB). The program conducted two HVAC/Controls classes for Idaho Power CRs. In addition to the formal training classes held, program staff and Idaho Power CRs visited trade allies in the field, at the trade ally's business, or at a customer location to further educate them on program criteria and to respond to their inquiries. Over 40 visits were made for the purposes of strengthening relationships; encouraging program participation; increasing knowledge of the Easy Upgrades program; receiving trade ally feedback about the market, the program, and their experiences; and learning how the program can better support trade allies (including where to focus training efforts in the future). Visits targeted electrical supply businesses and electrical contractors. Through these various activities, 547 people received lighting education from the Easy Upgrades program in 2013.

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. More information on the classes may be found in the IDL section of this *Demand-Side Management 2013 Annual Report*.

A program specialist participated as a member of the NEEA Northwest Regional Strategy Working Group. This group formed through collaboration with stakeholders to identify opportunities and strategic needs to support the region's success in commercial lighting. This strategic report was presented to the NEEA Regional Portfolio Advisory Committee (RPAC) in 2013. NEEA launched its first strategy from this report in November 2013, a midstream Reduced Wattage Lamp Replacement Demonstration Project. Targeted distributors across the region were selected for participation. No distributor in Idaho Power's service area was selected for participation. Results of this test are expected at the end of 2014.

2013 marketing tactics included bill inserts, a full page insert in the Boise Chamber of Commerce newsletter, commercial success stories, and articles in the *Energy@Work* newsletter. Also, print advertisements covering all commercial programs were placed in the *Business Insider*, *Idaho Business Review*, *Horizon Edition Magazine*, the BOMA Symposium program, and the BOMA membership directory. In addition to print advertisements, online digital advertisements were implemented at the beginning of the year. The Easy Upgrades webpages were updated to help make navigation for customer and trade allies more intuitive.

NEEA's *Comprehensive Commercial Lighting Initiative Pilot Evaluation Report* was made available in April 2013. A copy of the NEEA report is included on the CD accompanying *Supplement 2: Evaluation*.

The purpose of the Comprehensive Commercial Lighting Initiative (CCLI) was to test a lighting retrofit offer that focused on affecting the entire lighting system within a facility (to include lighting controls) versus the typical prescriptive one-for-one replacement approach. In-depth training was provided to the participating trade allies, as well as personal coaching throughout the pilot. Participants (customers and trade allies) were required to engage fully in the process to ensure their project met the qualifying criteria for participation. Higher incentives were offered to sway customers and trade allies to participate and help offset the additional rigor of the pilot.

Idaho Power took away four key findings from participation in the CCLI pilot.

- The pilot timeframe was too short. Whole-facility lighting retrofit projects take time to sell, time for the customer to obtain funds, and time to implement.
- The incentive used in the pilot was too low.
- The economy impacted participation. The pilot was implemented in Idaho Power's service area in the fourth quarter 2011 and first quarter 2012. Many eligible customers were not interested in participating at that time due to economic conditions.
- Overall, trade allies were unfamiliar with selling a comprehensive project, using lighting design software, and recommending controls and daylighting options.

Based on the findings from the comprehensive pilot, Idaho Power is considering the viability of offering a comprehensive lighting option as part of the Easy Upgrades program.

The Non-Residential Lighting Standard Protocol RTF sub-committee met in March and October during 2013 and produced a regional *Draft Retrofit Protocol* document at the October meeting. The resulting final protocol will affect definitions and methodologies around commercial lighting retrofit savings

calculations and data collection methodologies at the RTF. Idaho Power will watch the RTF sub-committee's work on the protocols.

Idaho Power continued to contract with Evergreen Consulting Group, LLC to provide ongoing lighting specialist expertise, project support, and trade ally training. Idaho Power contracted with Honeywell, Inc., to perform non-lighting project reviews and pre- and post- non-lighting project inspections. New in 2013, Easy Upgrades contracted with RM Energy Consulting to support lighting projects. RM Energy Consulting performed inspections and project reviews. They also conducted audits for the targeted-town event, a new function previously not used in the program.

To ensure projects participating 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 1,011 pre- and post-inspections throughout 2013. Program site inspections continue to result in a variety of findings. Some inspections matched perfectly with the submitted paperwork, while other inspections showed discrepancies in submitted paperwork. The program adjusted the incentive on projects with discrepancies to reflect actual field conditions.

Idaho Power contracted with ADM to conduct an impact evaluation of 2011 savings. Results of the evaluation were provided in 2012. Based on the results, the following recommendations were addressed in 2013.

- ADM recommended using custom calculations for large projects involving VFDs or for projects involving VFDs in process applications. After consideration of this recommendation, the program will continue to process VFDs for HVAC applications and send all process-related applications to the Custom Efficiency program. Idaho Power will make this change when the 2014 program changes become effective.
- ADM recommended performing a thorough review of the project scope and affected equipment. This recommendation had particular applicability to the energy-management system controls and economizer measures. Easy Upgrades incorporated this recommendation in 2013 by ensuring sufficient information was obtained to perform a thorough review of energy-management system controls and economizer projects. The number of on-site inspections was increased as well.
- ADM recommended Idaho Power consider applying interactive factors to lighting savings. Idaho Power reviewed this recommendation and is currently waiting for finalization of the RTF lighting protocol for further consideration.
- ADM recommended Idaho Power consider adopting a concurrent evaluation paradigm. Idaho Power will consider a concurrent evaluation approach on a program-by-program basis beginning in 2015.

## Cost-Effectiveness

In 2013, Idaho Power made several small changes to the measure offerings in the program. The lighting tool was updated to include T-8/T-5HO to reduced wattage T-8 lamps and reduced wattage T-5HO lamps, respectively; permanent fixture removal; screw-in reduced wattage metal halide lamps; and T-8 to LED refrigeration case lighting. Idaho Power contracted with Evergreen Consulting Group, LLC to review the assumptions within the lighting tool for all of the current and proposed standard lighting measure offerings as well. 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 the existing light fixtures, the replacement light fixtures, and actual hours of operation.

Idaho Power also made a slight modification to the HVAC measures within the program to reflect the changes in the Consortium of Energy Efficiency (CEE) Tier 2 minimums. Idaho Power engineers calculated the potential savings for the measures. An initial analysis of the measures showed it to be cost effective.

Currently, the source of the savings for the non-lighting measures come from Idaho Power engineering calculations, the RTF, or the 2009 *Idaho Power Demand-Side Management Potential Study* by Nexant, Inc. In 2013, ADM was contracted to provide savings and costs related to existing and new measures for the Easy Upgrades program in a TRM. The TRM will be thoroughly reviewed in 2014, and a cost-effectiveness analysis will be performed on all measures addressed through the TRM.

In 2012, the RTF reviewed and updated the commercial ENERGY STAR<sup>®</sup> refrigerators and freezers. Due to the changes to the federal efficiency standards and the higher level of ENERGY STAR market penetration, the deemed annual savings decreased, causing the measures to no longer be cost effective. Idaho Power had planned to remove the measure as part of a comprehensive program update in late 2013; however, the comprehensive program update will occur in 2014 after the completion of the TRM. In 2013, only one ENERGY STAR solid or glass refrigerator was processed. For current, detailed cost-effectiveness assumptions, see *Supplement 1: Cost-Effectiveness*.

## Customer Satisfaction and Evaluations

In 2013, Idaho Power conducted a phone survey of the commercial energy efficiency program non-participants. A total of 303 commercial customers were interviewed, and only 29 percent were aware of Idaho Power's energy efficiency programs. Of those aware of Idaho Power's energy efficiency programs, Easy Upgrades was the most recognized commercial offering, with 48 percent naming or describing the program. When asked how likely they would be to participate in a program on a 0 to 10 scale, 25 percent gave a high ranking between 8 and 10. Forty-two percent gave a mid-range ranking between 4 and 7. Of those likely to participate, 68 percent of respondents would consider participating in Easy Upgrades. Results of the non-participant survey can be found in *Supplement 2: Evaluation*.

In 2013, Idaho Power administered a process evaluation of the Easy Upgrades program through a third-party contractor Opinion Dynamics (Opinion). Opinion conducted interviews with program staff, reviewed program materials, and surveyed contractors and participants in the program. The data collected from these activities were used to measure customer and contractor awareness of, and satisfaction with, various aspects of the program, as well as to map-out key program processes to find efficiencies. Opinion reviewed similar programs throughout the country to benchmark the Easy Upgrades program and look for strategies Idaho Power could adopt to more effectively deliver the program to the market.

The evaluation survey results indicate participants and contractors are very satisfied with the program. Ninety percent of participants are at least "somewhat" satisfied with the program overall, and 92 percent of contractors are at least "somewhat" satisfied with the way the program is managed. Participants are also quite satisfied with the contractors they use to complete their projects.

The report notes that Easy Upgrades saw a 10-percent decline in the number of applications received in 2013 compared to 2012, and total program energy savings achieved by the program were only about 60 percent of the goal. Secondary research conducted by Opinion indicated that successful programs

similar to Easy Upgrades spend about 3 to 10 percent of their budgets on marketing. In 2012, Idaho Power devoted significantly less at approximately \$50,000, which was less than 1 percent of total program expenditures. Therefore, Opinion recommends Idaho Power increase the budget for outreach.

Opinion noted that face-to-face outreach to contractors is critical to the success of the Easy Upgrades program, with 54 percent of customers surveyed reporting they learned about the program from their contractor or vendor. The report states that current staff associated with this program are unable to conduct as much outreach to contractors as they would like due to time constraints and the difficulty of covering a large geographic area. Opinion recommends Idaho Power consider adding or shifting staff resources (or subcontractors) to contractor-related outreach.

Finally, Opinion found that Easy Upgrades functions are tracked through the Customer Load and Resource Information System (CLRIS) database, and certain management functions are conducted outside of the system, thereby reducing efficiency. Opinion recommends that Idaho Power investigate what types of enhancements could be made to CLRIS so these management functions can take place within the existing system. Opinion also noted that there are a number of software packages available with workflow and customer relationship management capabilities if this is cannot be done through CLRIS.

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

## 2014 Strategies

- Idaho Power is in the process of evaluating the inclusion of a comprehensive lighting incentive (as described above in regards to the CCLI).
- Idaho Power contracted with ADM to develop a TRM of the measures in the Easy Upgrades program and include updated measure cost and kWh savings. This work is ongoing and expected to conclude in 2014.
- The program will assess the types of technical training to offer trade allies and customers with in-house technical staff. Areas considered for training include HVAC/controls, lighting, and power quality.
- Easy Upgrades is evaluating whether to conduct another targeted-town event to recruit new participants to the program.
- A more formal trade ally outreach plan will be created and implemented in 2014.
- Marketing strategies for 2014 may include direct mail to small- and medium-sized businesses, an Idaho Power bill insert, trade ally outreach, and Easy Upgrades program workshops. In addition, Yahoo! behavioral advertisements may be used. Advertisements would be placed in Yahoo!'s Small Business and Small Business Advisor sections.
- In 2014, Idaho Power will review the 2013 Opinion recommendations and make appropriate program modifications.

## FlexPeak Management

	2013	2012
<b>Participation and Savings</b>		
Participants (sites)	100	102
Energy Savings (kWh)	n/a	n/a
Demand Reduction (MW)	48	52.8
<b>Program Costs by Funding Source</b>		
Idaho Energy Efficiency Rider	\$108,842	\$98,973
Oregon Energy Efficiency Rider	\$137,184	\$150,489
Idaho Power Funds	\$2,497,589	\$2,760,360
Total Program Costs—All Sources	\$2,743,615	\$3,009,822
<b>Program Levelized Costs</b>		
Utility Levelized Cost (\$/kWh)	n/a	n/a
Total Resource Levelized Cost (\$/kWh)	n/a	n/a
<b>Program Life Benefit/Cost Ratios</b>		
Utility Benefit/Cost Ratio	1.43	
Total Resource Benefit/Cost Ratio	1.43	
<b>Program Characteristics</b>		
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 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 1 to August 31 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 request for proposal (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 is available to participating customers throughout the year.

## 2013 Activities

In 2013, Idaho Power worked with EnerNOC to implement changes that would reduce the cost to operate the program while still keeping it operational. The changes included capping the weekly nominated demand reduction at 35 MW, reducing the amount of dispatch hours available from 60 to 30 and event days from 20 to 10, and reducing the amount Idaho Power paid to EnerNOC per kilowatt. These changes were incorporated into the contract between Idaho Power and EnerNOC as Amendment No. 2, which was approved by the IPUC in Order No. 32805.

During the first week of the program, EnerNOC committed to provide a meter-level reduction of 28.3 MW. This weekly commitment, or nomination, was comprised of 101 facility sites, of which 98 participated in the program in 2012, and three facility sites were added in 2013. The weekly nomination at the end of the season was 34.2 MW and was comprised of 98 facility sites.

EnerNOC was contractually obligated to commit to provide at least 20 MW of meter-level reduction and a maximum of 35 MW for each week in 2013. Their weekly commitments ranged from 28.3 MW to 35.0 MW. Their commitment peaked the second week in August at 35.0 MW.

Idaho Power called three demand response events for the FlexPeak Management program in 2013. The first two events occurred the first week of July, and the third event occurred the second week of July. EnerNOC exceeded the committed MW reduction in two of the three events. For the event EnerNOC did not reach their committed MW reduction, performance was 98 percent of the committed level. The highest hourly reduction achieved was 48.0 MW (42.5 MW at the meter).

## Cost-Effectiveness

The cost-effectiveness analysis for the FlexPeak Management program uses financial and DSM alternative cost assumptions from the 2011 IRP. As published in the IRP, for peaking alternatives, such as demand response programs, a 170-MW SCCT is used as an avoided resource cost. Because the 2013 IRP process indicated a lack of near-term capacity deficits, Idaho Power amended its contract with EnerNOC to operate the program in 2013 at a reduced cost. Based on these contract amendments, the cost-effectiveness analysis for the program was updated using a 5-year program life versus the previously analyzed 10-year program life. The FlexPeak Management program has a TRC ratio of 1.43 from a 5-year program life perspective and a TRC ratio of 1.41 for 2013. For details on the cost-effectiveness assumptions for the program, see *Supplement 1: Cost-Effectiveness*.

As a result of settlement agreements reached in Case No. IPC-E-13-14 and UM 1653, Idaho Power and other stakeholders agreed on a new methodology for valuing demand response. The new methodology will be applied to the cost-effectiveness models for all demand response programs in 2014.

## **Customer Satisfaction and Evaluations**

EnerNOC sent a post-event survey via email after the events in July 2013 to 184 participants representing all the sites enrolled in the event. Sixteen participants responded for a 9-percent response rate. All of these responses were up 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 8.8.
- 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 8.5.
- 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 8.9.

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

Although the company anticipated conducting a third-party process evaluation of the FlexPeak Management program, due to the potential for program changes resulting from the public workshops on Case IPC-E-13-14, the company determined it would be more prudent to postpone this effort until the new program offering is established.

## **2014 Strategies**

Idaho Power will not actively seek to expand the capacity of the FlexPeak Management program. The FlexPeak Management 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 FlexPeak Management 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.

In February 2014, Idaho Power reached an agreement with EnerNOC that allows the current contract to be amended and extended through 2014. Changes, which align the operation of FlexPeak Management with the results of the Demand Response Settlement Agreement approved by the IPUC in Order No. 32923, are incorporated into the contract through Amendment No. 3. Idaho Power filed an application with the IPUC on March 7, 2014, to approve the amendment to the agreement.

## Oregon Commercial Audits

	2013	2012
<b>Participation and Savings</b>		
Participants (audits)	18	14
Energy Savings (kWh)	n/a	n/a
Demand Reduction (MW)	n/a	n/a
<b>Program Costs by Funding Source</b>		
Idaho Energy Efficiency Rider	\$0	\$0
Oregon Energy Efficiency Rider	\$5,090	\$12,470
Idaho Power Funds	\$0	\$0
Total Program Costs—All Sources	\$5,090	\$12,470
<b>Program Levelized Costs</b>		
Utility Levelized Cost (\$/kWh)	n/a	n/a
Total Resource Levelized Cost (\$/kWh)	n/a	n/a
<b>Program Life Benefit/Cost Ratios</b>		
Utility Benefit/Cost Ratio	n/a	
Total Resource Benefit/Cost Ratio	n/a	
<b>Program Characteristics</b>		
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 offered under Oregon Rate 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.

### 2013 Activities

Idaho Power sent out its annual mailing to approximately 1,800 Oregon commercial customers in October 2013. Customers were notified of the availability of no-cost energy audits and were provided with the Idaho Power publication *Saving Energy Dollars*. Eighteen customers requested an audit, and five customers requested only the brochure. Of the 18 audits, 13 audits were completed by Idaho Power, and five were completed by a third-party contractor.

Idaho Power contracts with EnerTech Services to perform a portion of the requested audits. Energy audits include a review of the customers 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***

The value of an audit is the identification of actual savings opportunities in the customer's facility. 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.

## ***2014 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. The 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 2013, the active and inactive irrigation service locations totaled 19,398 system-wide. This was an increase of 1 percent compared to 2012, primarily due to the addition of service locations for pumps and pivots to convert land previously furrow-irrigated to sprinkler irrigation systems. Irrigation customers accounted for 2,097,259 MWh of energy usage in 2013, which was an increase from 2012 by 22.4 percent due to the hotter, dryer summer. This sector represented 14 percent of Idaho Power's total electricity usage and about 25 percent of peak demand in the summer. 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 2013, the RTF reviewed the Green Motor Rewinds measures and updated the methodology used to determine deemed savings. The initial analysis used the NEMA Premium as the efficient case motor efficiency. The new, approved method developed estimates of motor efficiency weightings for each hp size based on the count of motors entering the program. This change caused a slight increase in savings for each hp. Additionally, the RTF approved a recommendation from their consultant to increase the measure life by calculating the motor life in hours divided by the annual hours of operation.

The Irrigation Peak Rewards program was temporarily suspended for the 2013 season because the company's load and resource balance from the *2013 IRP* showed the company had adequate resources in the near-term. During the 2013 program season, past participants received a continuity incentive to maintain the load-control devices at each service location. Idaho Power conducted stakeholder workshops to determine the value and parameters of the program going forward. These workshops resulted in a revised program for future years. For more details, view the *Introduction* and the *Regulatory Initiatives* sections of this *Demand-Side Management 2013 Annual Report*.

The Irrigation Efficiency Rewards program, in operation since 2003, saw its annual savings increase from 12,617 MWh in 2012 to 18,511 MWh in 2013. The savings increase of 5,894 MWh in 2013 was primarily due to many more Menu Option projects being done in 2013 and revised per-unit annual savings from the RTF. In addition, during 2013, irrigation customers contributed 66,465 kWh per year of energy savings from 27 motors participating in Green Rewind.

Table 11 summarizes the overall expenses and program performance for both the energy efficiency and demand response programs provided to irrigation customers.

## Programs

Table 11. 2013 irrigation program summary

Program	Participants	Total Cost		Savings	
		Utility	Resource	Annual Energy (kWh)	Peak Demand (MW)
<b>Demand Response</b>					
Irrigation Peak Rewards .....	n/a service points	\$ 2,072,107	\$ 2,072,107	n/a	suspended
<b>Total</b> .....		<b>\$ 2,072,107</b>	<b>\$ 2,072,107</b>	<b>n/a</b>	<b>n/a</b>
<b>Energy Efficiency</b>					
Irrigation Efficiency Rewards .....	995 projects	\$ 2,441,386	\$ 15,223,928 <sup>a</sup>	18,511,221	3.0
<b>Total</b> .....		<b>\$ 2,441,386</b>	<b>\$ 15,223,928</b>	<b>18,511,221</b>	<b>3.0</b>

<sup>a</sup> See Appendix 3 for notes on methodology and column definitions.

Each year, the company conducts a customer relationship survey. Overall, 42 percent of Idaho Power irrigation customers surveyed in 2013 for the Burke Customer Relationship survey indicated Idaho Power was meeting or exceeding their needs in offering energy efficiency programs. Forty-four percent of survey respondents indicated Idaho Power is meeting or exceeding their needs with information on how to use energy wisely and efficiently. Fifty-seven percent of respondents indicated Idaho Power is meeting or exceeding their needs with encouraging energy efficiency with its customers. Overall, 36 percent of the irrigation survey respondents indicated they have participated in at least one Idaho Power energy efficiency program. Of irrigation survey respondents who have participated in at least one Idaho Power energy efficiency program, 90 percent are “very” or “somewhat” satisfied with the program.

In 2013, Hansa GCR conducted a phone survey of non-participants of Idaho Power irrigation energy efficiency program options. The primary objective of the study was to gain a better understanding of why customers do not participate in energy efficiency programs and how to increase participation. A total of 170 irrigation customers were interviewed. Of the non-participants surveyed, 45 percent were not aware of Idaho Power’s energy efficiency programs. However, when asked to rate how important it is for Idaho Power to offer energy efficiency programs on a 0 to 10 scale, 69 percent of respondents indicated importance was high with a rating between 8 and 10. The non-participants were also asked how likely they were to participate in an energy efficiency program on a 0 to 10 scale. Respondents’ likelihood to participate was neutral, with 24 percent giving a rank between 0 and 3. Forty-five percent gave a mid-range ranking between 4 and 7. When asked what their most preferred method of communication was, 54 percent of respondents preferred a bill insert.

Customers completed a paired comparisons exercise to evaluate the relative importance of potential barriers and motivators for participation. Fifty-seven percent of non-participants ranked unfamiliarity with the programs as the biggest barrier to participation. Sixty-one percent of non-participants ranked lower energy costs as the biggest motivator to participation. Results of the non-participant survey can be found in *Supplement 2: Evaluation*.

## Irrigation Efficiency Rewards

	2013	2012
<b>Participation and Savings</b>		
Participants (projects)	995	908
Energy Savings (kWh) <sup>a</sup>	18,511,221	12,617,164
Demand Reduction (MW)	3.0	3.1
<b>Program Costs by Funding Source</b>		
Idaho Energy Efficiency Rider	\$2,277,059	\$1,978,729
Oregon Energy Efficiency Rider	\$134,789	\$360,689
Idaho Power Funds	\$29,539	\$33,782
Total Program Costs—All Sources	\$2,441,386	\$2,373,201
<b>Program Levelized Costs</b>		
Utility Levelized Cost (\$/kWh)	\$0.016	\$0.022
Total Resource Levelized Cost (\$/kWh)	\$0.098	\$0.110
<b>Program Life Benefit/Cost Ratios</b>		
Utility Benefit/Cost Ratio	5.05	
Total Resource Benefit/Cost Ratio	1.72	
<b>Program Characteristics</b>		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2003	

<sup>a</sup> Includes kWh savings from Green Rewind.

### 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 of 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 total project 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 in which

small maintenance upgrades provide energy savings from 11 separate measures. These measures are as follows:

- New flow-control nozzles
- Replacement of worn brass or plastic nozzles
- Rebuilt or new impact sprinklers
- Rebuild kits for wheel-line levelers
- New low-pressure or rotating-type sprinklers
- New low-pressure regulators
- New drains, riser caps, and gaskets
- 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 agricultural representatives 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 agricultural representatives evaluate prospective customers' potential savings. Agricultural representatives 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, advertisements 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.

### **2013 Activities**

Of the 995 irrigation efficiency projects completed in 2013, 914 were associated with the Menu Incentive Option, providing an estimated 14,303 MWh of energy savings and 1.92 MW of demand reduction. The Custom Incentive Option had 81 projects, of which 47 were new irrigation systems and 34 were on existing systems. This option provided 4,208 MWh of energy savings and 1.05

MW of demand reduction for the year. Also during 2013, irrigation customers contributed 66,465 kWh of energy savings from 27 motors participating in the Green Rewind opportunity.

Idaho Power agricultural representatives, 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 2013, Idaho Power provided five workshops promoting the Irrigation Efficiency Rewards program throughout the service area. Approximately 180 customers attended workshops in American Falls, Burley, Twin Falls, Grand View, and Nampa. Idaho Power also accepted invitations to present the program at two workshops sponsored by agricultural groups in Gooding and Hailey. 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. A database of irrigation dealers and vendors was developed 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 ensure correct program promotion.

### **Cost-Effectiveness**

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. To estimate the effectiveness of a project, Idaho Power uses a service point's previous five years of electricity usage history on a case-by-case basis depending on the customer's unique situation and, based on the specific equipment to be installed, calculates the estimated post-installation energy consumption of the system. The company also verifies the completion of the system design through aerial photographs, maps, and field visits by Idaho Power agricultural representatives to ensure the irrigation system is used in the manner the documentation describes.

Each application under the Menu Incentive Option received by Idaho Power also undergoes an assessment to ensure deemed savings are reasonable. Payments are calculated on a prescribed basis by measure. In some cases, the energy savings estimated 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, such as low operating hours determined from the five-year usage history.

In 2012, the RTF approved of a plan to re-evaluate the deemed savings for each measure. 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. Idaho Power updated its 2013 savings to reflect the RTF deemed-savings values as much as possible.

Based on the new deemed savings from the RTF, all the measures that will be offered under the Menu Incentive Option are cost effective. The rebuilt and new wheel-line levelers were previously shown not to be cost effective in 2010 and were removed from the list of qualifying components under the Menu Incentive Option. The new deemed savings from the RTF show this item is compliant with the guidelines and will be reinstated as a qualifying component in 2014.

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 plans to present these recommendations to EEAG, to make program changes, and to file these changes with the OPUC in 2014. Idaho Power has made one small change in the calculation of NEBs based on the impact evaluation. ADM found “no reason to mitigate” the company’s methodology for calculating cost-effectiveness. The evaluators determined the NEBs for the Menu Incentive Option are understated. One recommendation was to calculate NEBs on a per-kWh basis rather than a per-acre basis as Idaho Power has done in the past. Research by Idaho Power is needed to fully understand how ADM determined the per-kWh NEBs; however, for 2013, Idaho Power converted its previous NEB assumptions to a per-kWh basis per component as recommended by ADM.

For details on the cost-effectiveness assumptions for the Menu Incentive Option, see *Supplement 1: Cost-Effectiveness*.

## **Customer Satisfaction and Evaluations**

In 2012, Idaho Power contracted with the University of Idaho to conduct research on the energy savings for the menu measures in the Irrigation Efficiency Rewards program. At the February 7, 2013, EEAG meeting, Idaho Power discussed the results of the study researching the Menu Incentive Option measures of the Irrigation Efficiency Rewards program. In April 2013, a sub-committee of the RTF reviewed the results of the study and decided the new deemed-savings guidelines. At the May 23, 2013, EEAG meeting, Dr. Howard Neibling, PE, from the University of Idaho present the findings from the Irrigation Efficiency Research Project.

In 2013, Idaho Power conducted an impact evaluation of the Irrigation Efficiency Rewards. This evaluation was performed by third-party contractor ADM. Data for the study was collected through review of program materials and interviews with participating agricultural customers, agricultural trade allies, and Idaho Power staff.

The approach used for the evaluation included 1) an analytical review of program measures performed to verify ex-post<sup>7</sup> impact savings estimates; 2) interviews and an analytical review performed to confirm NEBs associated with the program; and 3) a review of RTF estimates for the measures included in the menu component of the program for reasonability and accuracy.

Evaluation results indicate that ex-ante<sup>8</sup> menu option savings estimates were conservative, with an ex-post verified realization rate of 187 percent. Ex-ante menu estimates included two adjustment factors: 1) actual average pump run times for individual sites and 2) variations in the irrigation system type. ADM reviewed the RTF values for reasonableness and accuracy and found no reason to mitigate the

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<sup>7</sup> Ex-post is Latin for after the fact.

<sup>8</sup> Ex-ante is Latin for beforehand.

values with per-site adjustment factors. ADM also found the menu option NEB estimations were understated.

ADM's method for calculating ex-post savings for the custom option in the program relied primarily on pre- and post-retrofit AMI meter data for projects with existing equipment. This gave the evaluators an accurate snapshot of how each pump affected by the retrofit at each site was using energy pre- and post-retrofit. ADM again found that ex-ante savings estimates were conservative, with an ex-post verified realization rate of 118 percent.

Based on the results of this evaluation, ADM provided the following recommendations for program improvement:

- Consider including NEBs as part of a comprehensive cost-effectiveness test for the program. Currently, no previous published research has been conducted on NEBs for irrigation systems since NEBs are difficult to quantify. The RTF currently provides values for societal costs and benefits for menu component measures only.
- Update menu component incentives and expected savings to match the RTF. 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. In 2012, the menu option treated the existing nozzle, low-pressure regulator, and rotating sprinkler head measures as separate line items. The application for the 2014 irrigation program should be revised to match the measures covered under the RTF.

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

## 2014 Strategies

Marketing plans for 2014 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.

The Irrigation Efficiency Rewards brochure will be updated and distributed using direct mail. A newsletter will be created for irrigation customers to provide more frequent communication with customers on energy efficiency programs, safety, and information for understanding billing.

Idaho Power is reviewing the program regarding measures offered in the Menu Incentive Option. The new deemed savings guidelines from the RTF, along with the results of the impact evaluation from ADM, will help determine changes to the program in 2014. At the February 2014 EEAG meeting, a representative from ADM presented the results of the impact evaluation they conducted.

A 2014 media plan is aimed at increasing the impact of advertising on this program. In addition, the effectiveness of online advertisements will be evaluated with this target audience. Idaho Power is creating an *Agricultural Irrigation Newsletter* to be distributed to all irrigation customers. The newsletter will provide a line of direct communication for program promotion, safety, and tips on understanding billing.

## Irrigation Peak Rewards

	2013	2012
<b>Participation and Savings</b>		
Participants (service points)	n/a	2,433
Energy Savings (kWh)	n/a	n/a
Demand Reduction (MW)	n/a	339.9
<b>Program Costs by Funding Source</b>		
Idaho Energy Efficiency Rider	\$407,496	\$1,309,107
Oregon Energy Efficiency Rider	\$30,117	\$95,863
Idaho Power Funds	\$1,634,494	\$11,018,394
Total Program Costs—All Sources	\$2,072,107	\$12,423,364
<b>Program Levelized Costs</b>		
Utility Levelized Cost (\$/kWh)	n/a	n/a
Total Resource Levelized Cost (\$/kWh)	n/a	n/a
<b>Program Life Benefit/Cost Ratios</b>		
Utility Benefit/Cost Ratio	n/a	
Total Resource Benefit/Cost Ratio	n/a	
<b>Program Characteristics</b>		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2004	

### Description

Idaho Power's Irrigation Peak Rewards program is a voluntary program available to all Idaho and Oregon agricultural irrigation customers. 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 days in the most extreme summers, the Irrigation Peak Rewards program can reduce the amount of generation and transmission resources that Idaho Power needs to plan for. 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.

In 2013, Idaho Power and stakeholders agreed to temporarily suspend this program due to the load and resource balance from the *2013 IRP* showing there were no peak-hour capacity deficits until 2016.

Historically, all Idaho Power irrigation customers taking service under Schedule 24 in both Idaho and Oregon were eligible and participants chose between three options: 1) the Electric Timer Option, 2) an Automatic Dispatch Option that allows Idaho Power to remotely turn off participants' pumps, or 3) a Manual Dispatch Option designed for large-service locations with 1,000 hp or greater that allows participating customers, after being notified by Idaho Power, to choose which pumps to manually turn off during a load control event.

For customers participating in 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. Dispatchable load control events could happen between 1:00 p.m. and 9:00 p.m. on weekdays and Saturdays. Customers who chose to participate until 9:00 p.m. received a higher variable incentive for events. A control device attached to the customer's individual pump electrical panels allows Idaho Power to remotely control the pumps.

Installation fees between \$500 and \$1,000 were applied to participating service points with less than 50 hp depending on the option customers chose. Participants in the Manual Dispatch Option were required to nominate the amount of kilowatts they were enrolling in the program by June 1 of the program year. Participants in the Electronic Timer Option could choose to have all irrigation pumps on a single, metered service point turned off one, two, or three times per week. Interruptions occur in the timer option from 4:00 p.m. to 8:00 p.m., and Idaho Power determines the specific weekday or weekdays to schedule the interruption of all pumps at each service point. Installation fees between \$250 and \$500 were applied to participating service locations with less than 75 hp.

Under the rules of the Automatic and Manual Dispatch Options, participants have the ability to opt out of dispatch events five times per service point. Each opt-out incurs a fee of \$1 per kW based on the current month's billing kW, which may be prorated to correspond with the dates of program operation and are completed through manual bill adjustments.

In 2012, Idaho Power filed Case No. IPC-E-12-29 in Idaho and advice No. 13-04 in Oregon 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. A letter communicating this request for a temporary suspension was sent to participants in late December 2012.

As part of the temporary program suspension in 2013, customers received a continuity incentive payment to maintain a high level of participation in the future. Only service locations that were active participants in the program in 2012 in either of the three options, and whose name on the account did not change, were eligible to receive a continuity payment. A customer's incentive appeared as a bill credit reflected as a demand credit based on the customer's prior year (2012) for the 2012 interruption option for each service point. Credits were prorated for periods when reading/billing cycles did not align with the program season dates from June 15 to August 15. All customer incentives participating in the Electric Timer Option or Automatic Dispatch Option were calculated through Idaho Power's billing system based on the customer's monthly billing demand during the program season. In addition, Manual Dispatch Option customers' incentives were calculated using metered billing demand and the prior year's (2012) nominated kW through a manual process. Customers received the incentives in the form of a check. The incentives offered in 2013 are listed in Table 12.

Table 12. 2013 continuity incentives

Option	Demand Credit (\$/billing kW)
<b>Dispatchable Option</b>	
Options 1,2, and 3 .....	\$2.27
<b>Timer Option</b>	
One weekday.....	\$0.54
Two weekdays.....	\$0.94
Three weekdays .....	\$1.33

## 2013 Activities

A series of workshops were held during 2013 to determine the effectiveness of the company's three demand response programs. A detailed description of the workshops and outcomes is located in the *Introduction* section and the *Regulatory Initiatives* section of this *Demand-Side Management 2013 Annual Report*.

Because the Irrigation Peak Rewards program was temporarily suspended in 2013, activities were limited to the demand response workshops, customer communication, processing continuity payments, and related work to support the stakeholder process.

The number of service points that received the continuity incentive payment in 2013 was 2,284. This accounted for approximately 93 percent of the service points enrolled in the program in 2012.

In 2013, the program was not marketed to customers. However, Idaho Power provided information about the temporary suspension at five workshops throughout the service area. Approximately 180 customers attended workshops in American Falls, Burley, Twin Falls, Grand View, and Nampa. The company also accepted invitations to present the information at two workshops sponsored by agricultural groups in Gooding and Hailey. Exhibitor booths, where company representatives were available to answer questions, were displayed at regional agricultural trade shows, including the Eastern Idaho Agriculture Expo, the 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 agriculture representatives informed customers of the 2013 program suspension.

### **Cost-Effectiveness**

No cost-effectiveness analysis was performed on the program for 2013 due to the temporary suspension of the program. In case IPC-E-12-29, the company filed a settlement stipulation that was approved by the IPUC on April 2, 2013, and Oregon Advice No. 13-04 on April 23, 2013. In both cases, the parties recognized the need for the company to incur reasonable program expenses in 2013 to maintain the program's infrastructure and the long-term viability of the program though it may not be cost effective by traditional standards.

### **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, and program changes. A copy is included in *Supplement 2: Evaluation*.

### **2014 Strategies**

As a result of settlement agreements reached in Case No. IPC-E-13-14 and UM 1653, Irrigation Peak Rewards will again be offered as a demand response program in 2014, with some modifications. Under the terms of the settlement agreement, the program will only be available to service locations that currently have a load-control device installed or that participated in the Manual Incentive Option in 2012.

The company will work with past participants in this program who are eligible to participate in 2014 to encourage their participation. Idaho Power will conduct 8 to 10 workshops throughout the company's regions to familiarize customers to the program details. Additionally, Idaho Power will conduct an impact evaluation on the Irrigation Peak Rewards program during 2014.

## 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 fourth year of NEEA's current, five-year funding cycle ended in 2013.

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 2013, Idaho Power energy efficiency staff served on NEEA's Board of Directors, Residential Advisory Committee, Commercial Advisory Committee, Industrial Advisory Committee, Irrigation Advisory Committee, Portfolio 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, Regional Lighting Strategy Working Group, Northwest Research Group, and participated in NEEA-sponsored studies and research.

### Commercial and Industrial NEEA Activities in Idaho

NEEA continued to provide support for commercial energy efficiency activities in Idaho in 2013. This included partial funding of the IDL and local BetterBricks<sup>®</sup> trainings and workshops.

In the industrial sector, NEEA discontinued its efforts to embed Continuous Energy Improvement (CEI) in small- to medium-sized businesses due to poor participation in the initiative. CEI was a multi-year strategic effort designed to improve energy efficiency in the small- to medium-sized businesses in the industrial sector.

Technical training and education continue to be important to Idaho Power's industrial customers, helping them identify energy efficiency opportunities within their facilities. Nine technical training classes were completed in 2013. Topics included compressed air, chilled water systems and cooling towers, pneumatic conveyance, pumping systems, VFDs, industrial refrigeration, data-center efficiency, and fan energy efficiency. The level of attendance at these classes remains high, with 125 participants attending the workshops. See the Custom Efficiency program section for more details regarding the technical training classes.

In the commercial sector, NEEA worked with utilities and lighting trade allies to develop a comprehensive lighting program. Idaho Power was one of four utilities that participated in the regional Comprehensive Lighting Initiative Pilot that concluded in 2012. NEEA's *Comprehensive Commercial Lighting Initiative Pilot Evaluation Report* was made available April 2013 and is included on the CD accompanying *Supplement 2: Evaluation*.

Idaho Power partnered with BOMA of Boise and NEEA to offer a Kilowatt Crackdown™ competition for office buildings over 15,000 ft<sup>2</sup> located in the Treasure Valley. 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 their buildings throughout 2013.

NEEA has also secured a pilot project in Idaho for their Existing Building Renewal initiative. This initiative is aimed at developing and testing new industry tools for commercial property owners engaging in deep energy retrofits. In late 2013, Idaho Power began working on a story about the initiative with the Idaho Statesman. It became the cover story for their January issue of *Business Insider*, featuring the local participating company and Idaho Power's role in this effort as well as other energy efficiency programs Idaho Power offers to the business community. The Idaho project will be phased in through 2016.

As part of an irrigation initiative within the agricultural sector, NEEA continues to have a demonstration project on variable-rate irrigation (VRI). VRI works by allowing a varied amount of water coming out of each sprinkler along an irrigation pivot. The potential for energy savings exists if different areas of the field have different water requirements. This project had communication issues between NEEA and the customer that made results unattainable in 2012. In 2013, a new site was selected and initial information from NEEA indicates additional technical development is required and the adoption of the technology will be challenging. NEEA is also conducting demonstrations of variable speed irrigation (VSI) at various locations in Idaho. 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 if different pie-shaped areas of the field have different water requirements.

### **Residential NEEA Activities in Idaho**

NEEA supported a variety of residential programs and associated activities in Idaho Power's service area in 2013. NEEA is directly involved in providing additional funding and support for ENERGY STAR® Homes Northwest, the DHP Pilot, the Heat Pump Water Heater (HPWH) research project, the Consumer Electronics Energy Forward Initiative, the Conduit online community, the RETAC, the Roadmap Portfolio, and the NWRRC forum.

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's third-party implementer, Fluid Market Strategies, held an ENERGY STAR Verifier Boot Camp in Boise from October 9 to 11, 2013. The three-day workshop provided ENERGY STAR raters and verifiers with technical and business development tools required to remain at the forefront of the energy-efficient building industry. The classes were a mix of hands-on field training and classroom instruction.

NEEA has coordinated the DHP pilot research project since 2009, which includes data collection, design, results analysis, savings calculations, and ongoing promotional activities. 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, conducted during the summer and fall of 2013. 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 advertisements.

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 approximately four years ago. A goal of the project is to promote the adoption of higher-efficiency HPWH 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 include a rebate through June 2014 to residential homeowners who have certain HPWHs installed. The promotion requires the HPWH to be installed by a contractor trained by NEEA. There are 18 NEEA-trained contractors in Idaho Power's service area. NEEA also arranged for a HPWH discount program to be offered through retailers. The research project will be evaluated in 2014. Evergreen Economics, the evaluation contractor, will provide the HPWH model validation and process evaluation. Energy-savings data generated by the RTF's modeling created specifically for this study will be compared to evaluation data from field studies.

NEEA performed a market test between May 2012 and April 2013 and published the *Northwest Heat Pump Water Heater Market Test Assessment*, created by Evergreen Economics, on December 18, 2013. The report showed the market test influenced the purchase and installation of HPWHs in the Northwest. The report described key drivers for HPWH purchases, barriers to adoption, types installed, and consumer satisfaction. A copy of the NEEA report is included on the CD accompanying *Supplement 2: Evaluation*.

Idaho Power's partnership with NEEA's Consumer Electronics Energy Forward Initiative continued in 2013. The initiative highlighted the most energy-efficient televisions available. Retailers who represent more than 84 percent of televisions sold in the Northwest partnered with NEEA to promote Energy Forward televisions, including Best Buy, Costco, Kmart, Sam's Club, Sears, and Wal-Mart. Televisions in 2013 were 9 percent more efficient than those manufactured in 2012, and 63 percent more efficient than those made in 2009.

Energy Forward marketing focused on in-store impacts. NEEA tested two experimental designs, running the Energy Forward video in stores and developing a store associate engagement program to see how each drove up sales. Results are pending.

The Energy Forward initiative concluded on December 31, 2013. NEEA will continue to provide television incentives as part of its new retail platform.

Idaho Power has also participated in NEEA's Residential Advisory Committee meetings and activities throughout 2013 and served on the advisory team to contribute to ongoing improvements of Conduit. Additionally, two members of the residential programs team, two members of the commercial/industrial programs team, and one analyst attended NEEA's Efficiency Exchange in May 2013.

RETAC held multiple webinars on various emerging technologies in the market and met twice in 2013. RETAC continued the 2012 discussion of the purpose and responsibilities of the committee. One role is to establish the regional priorities for collaboration among the utilities in emerging technologies research. As a result, RETAC may work with the Northwest Research Group in the future to carry out this research. Idaho Power and other utilities participating in RETAC reported on various projects the utilities were pursuing. The list was aggregated into a visual representation of the pipeline of current activities. RETAC then compiled a list of technologies and developed a list of priorities. In 2014, RETAC will continue to clarify the goals and increase the productivity of the group.

In 2012, an Idaho Power analyst participated on the National Energy Efficiency Technology Road Mapping Summit committee meeting sponsored by the BPA with NEEA as a supporting member. In March 2013, a revised National Energy Efficiency Technology Roadmap Portfolio was released by the BPA. It defined seven product/service areas detailed into 41 roadmaps, 429 capability gaps, 470 technology characteristics, and 518 research and development (R&D) program descriptions.

View the BPA website for further information at

<http://www.bpa.gov/Doing%20Business/TechnologyInnovation/Documents/2013/201303-EE-Tech-RM-Portfolio-March-2013.pdf>.

An Idaho Power residential specialist was involved in 2013 with the NWRRC. 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. Due in part to the relationships built through the collaborative, the residential specialist was asked to moderate a session at the northwest Efficiency Exchange, a joint conference between NEEA and the BPA. The session focused on mid-stream to upstream incentives to promote efficient products through retailers.

### **Other NEEA Activities in Idaho**

NEEA began work on the Commercial Building Stock Assessment (CBSA). Idaho Power staff participated in the RFP selection committee and was invited to participate in the five-member Sampling Priorities Working Group. The working group met several times in 2013 to review and approve the project sampling plans. The group met later in 2013 when issues arose with the study and required changes to the sampling plan. Idaho Power will continue to contribute to the CBSA in 2014 as data collection winds down and the project transitions into the analysis phase.

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 who may face similar program challenges. NEEA published the *Residential Building Stock Assessment: Manufactured Home Characteristics and Energy Use* and the *Residential Building Stock Assessment: Multifamily Characteristics and Energy Use* reports in 2013. Copies of these NEEA reports are included on the CD accompanying *Supplement 2: Evaluation*.

### **NEEA Funding**

In 2013, Idaho Power began the fourth 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 2013, 100 percent was funded through the Idaho and Oregon riders.

In 2013, Idaho Power paid \$3,313,058 to NEEA. The Idaho jurisdictional share of the payments was \$3,147,405, while \$165,653 was paid for the Oregon jurisdiction. Other expenses associated with NEEA activities, such as administration and travel, were paid by Idaho Power.

For this report, NEEA provides Idaho Power an early estimate of its annual funding share savings for the previous year. In the *Demand-Side Management 2012 Annual Report*, the NEEA preliminary funding share savings reported were 17,741 MWh. The revised estimate included in this report for 2012 final funding share NEEA savings is 19,568 MWh. Preliminary estimates reported by NEEA for 2013

indicate Idaho Power's share of regional market transformation MWh savings for 2013 is 18,347 MWh. Additionally, NEEA adjusted 2011 savings from a previously reported 20,547 MWh to 20,162 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 [www.neea.org](http://www.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 to increase Idaho Power's energy efficiency program participation and result in wise and informed choices regarding energy use.

The Residential Energy Efficiency Education Initiative continued to produce the 2013 semi-annual energy efficiency guides. These guides were primarily distributed via insertion in local newspapers across Idaho Power's service area. Process improvements implemented in 2013 include the following:

- The design team surveyed popular magazines and found a set of design elements to further enhance the appeal, readability, and recognition for the readership.
- Other elements included a new, simplified website virtual URL and quick response (QR) codes to connect smart-phone users directly to key energy efficiency program information.
- The management team completed a thorough review of all customer communications to consolidate and select the most appropriate time of the year to connect with customers about energy efficiency. As a result, April and October were selected as the prime months to publish the energy efficiency guides. Additionally, the February and August issues of *Connections* will be devoted to energy efficiency education and marketing.
- To further increase distribution of the energy efficiency guides, the *Adams County Record* and the *Owyhee Avalanche* were added to the list of local newspapers distributing the energy efficiency guide.
- Idaho Power began translating the guides into Spanish.

The *Spring/Summer Energy Efficiency Guide*—inserted into 11 newspapers and delivered to 224,643 homes on April 21, 2013—focused on do-it-yourself energy efficiency projects for the home. The guide highlighted tax incentives for various improvements, low- and no-cost suggestions for making the most impactful changes for the summer months, and information to increase customers' understanding of how various behaviors and choices can impact energy use. It also contained a primer on energy efficient windows and included a decision tree to help customers identify the best ways to make their windows more efficient. The *Fall/Winter Energy Efficiency Guide*—inserted into 13 newspapers and delivered to 227,693 homes on November 11, 2013—focused on maximizing savings while maintaining comfort during cold weather. Customers were introduced to the Savings Center and Bill-To-Date features of Idaho Power's online Account Manager and encouraged to complete a do-it-yourself home energy audit. They were also given basic information about how to evaluate the efficiency of heating and cooling systems.

In 2013, 3,447 additional guides were distributed at energy efficiency presentations and events, up from 1,405 in 2012—an indication of their perceived value and success of the strategy to prolong the shelf-life of these guides. Links to the current guides were given prominent positions on Idaho Power's

website during the appropriate seasons. Additionally, the full suite of energy efficiency guides was made available for viewing and download via Idaho Power's website.

Idaho Power's social-media presence grew in 2013, and continued to be an effective method of informing and educating stakeholders on the company's energy efficiency programs, incentives, and events. Compared to January 2013, Facebook fans doubled to nearly 7,600, and Idaho Power's Twitter following jumped from 800 to more than 1,900. The company's YouTube Channel also increased in the number of videos, going from 45 videos in 2012 to over 100 in 2013. As in 2012, the most popular video in terms of both views and minutes watched was the educational video on DHPs. Ensuring quality content is very much a team effort, with the social-media specialist working with program specialists and marketing staff to ensure messaging aligned with key campaigns and energy efficiency events throughout the year.

Additionally, Idaho Power's energy efficiency program managers responded to 293 web inquiries with detailed written answers.

The Residential Energy Efficiency Education Initiative distributed energy efficiency messages through a variety of other communication methods during 2013. Increased customer awareness of energy-saving ideas was accomplished via continued distribution of the 96-page book *30 Simple Things You Can Do To Save Energy*, a joint publishing project between Idaho Power and The Earthworks Group. During the year, 4,635 English and 896 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<sup>®</sup> program; through direct web requests; and in response to inquiries received by Idaho Power's customer service center. By mid-year, the supply of this publication was exhausted. The text was updated and enhanced. The third printing of books arrived in December 2013 and is ready for distribution in 2014.

Idaho Power continues to recognize educated employees are effective advocates for Idaho Power's energy efficiency programs. To keep employees informed and up to date, Idaho Power conducted its annual energy efficiency awareness campaign in March 2013. Activities during 2013 focused on providing information and education to employees not directly engaged in marketing energy efficiency on a day-to-day basis. CR&EE staff partnered with the Idaho Power marketing specialists to deliver 16 presentations across the service area to over 200 employees during the month. The presentations reviewed Idaho Power's programs and the value of encouraging family, friends, and neighbors to participate in the energy efficiency programs and use energy wisely at home.

The Kill A Watt<sup>™</sup> Meter Program remained active in 2013. Idaho Power 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 new hands-on table display was developed for libraries to use to engage patrons, promote energy efficiency, and increase circulation of the Energy Efficiency Kits.

As in 2012, 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 2013, twenty teachers completed the 3-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 *Sustainable Energy Sustainable Homes* lecture series. 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 153 attendees in 2013. Idaho Power continued to partner with the City of Hailey on the educational portion of their Hailey Community Climate Challenge grant by participating in the delivery of two final workshops during the year.

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.

Early in 2013, GreenWorks Idaho, the sponsoring organization of the Idaho Green Expo, experienced a change in leadership. With this change, came a new vision. The event was re-designed into a one-day format with a change in name, venue, and tone. While still dedicated to promoting sustainability to Treasure Valley residents, the goals of the event appeared to focus less on education and more on social interaction. Idaho Power did not participate in the 2013 Idaho Green Fest; however, Idaho Power will continue to monitor potential opportunities to partner with GreenWorks Idaho and other sustainably minded organizations as it works to educate the public about the principles of wise energy use.

In September 2013, Idaho Power participated in the FitOne Expo, formerly known as the St. Luke's Women's Show, in Boise, Idaho, for the sixth consecutive year. St. Luke's announced its intent to move toward a more family-focused event. The event continues to be important due to the size of the audience and because the demographics of attendees align with Idaho Power's residential energy efficiency target audience.

As in the previous three years, Idaho Power requested visitors to the Idaho Power booth complete a survey. Of the expo attendees who completed the survey, 94 percent of the respondents were female and the most represented age group was between 46–60 years old. The number of men was slightly higher than in years past, potentially due to St. Luke's change in name and direction for the event. Idaho Power will closely monitor to ensure the event demographics continue to align with the energy efficiency target audience.

As in 2012, participants in the FitOne race, held in conjunction with the expo, were given the opportunity to complete Idaho Power's online survey before and after the race via a Web link distributed by St. Luke's. Unfortunately online responses were lower than in 2012 because of additional constraints imposed by the sponsor and their partners. In 2012, 40 percent of the surveys were completed remotely compared to 26 percent in 2013. During the 2013 expo, the company collected 454 surveys, of which 74 percent were completed at the booth.

Respondents were asked their level of familiarity of with Idaho Power's residential energy efficiency programs. ENERGY STAR<sup>®</sup> Homes Northwest had the highest awareness at 75 percent and A/C Cool Credit had the highest participation at just over 20 percent.

The 2013 survey also asked questions to determine recall of specific education and marketing collateral. The respondents were shown images of the two most recent energy efficiency guides and were asked to select statements that best described their level of interest in these pieces. Readership of the two guides was very similar. Of the respondents who recalled seeing at least one of the energy efficiency guides, between 15 and 17 percent said they read all the information in both guides, between 41 and 47 percent read some of the articles in both editions, and between 25 and 31 percent skimmed the publications. The only significant difference in readership was in those who didn't recall seeing the guides at all. Less

than 7 percent did not recall seeing the summer guide but almost 17 percent didn't recall seeing the winter guide. Some of this lack of recall may be attributed to the amount of time that had elapsed since the winter guide was issued.

When asked if they took any action or made improvements to their home as a result of the information in the energy efficiency guide, 40 percent of the respondents who recalled at least one of the energy efficiency guides responded "yes."

The survey also asked respondents if they recalled seeing energy efficiency bill inserts in their monthly bill. Of the respondents who answered the question, over 46 percent said "yes." When asked if they took any action based on the bill inserts, just over 23 percent of respondents who recalled promotional material said "yes." Of those that did take action, over 63 percent went to Idaho Power's website for more information, 24 percent called Idaho Power for more information, and almost 20 percent enrolled in an Idaho Power energy efficiency program. The results of the survey are located in *Supplement 2: Evaluation*.

Idaho Power further increased its energy efficiency presence in the community by providing energy efficiency and program information through 154 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 174 presentations to local organizations addressing energy efficiency programs and wise energy use. In 2013, Idaho Power's Community Education team provided 80 presentations on *The Power to Make a Difference* to 2,291 people. The community education representatives and other staff also completed 53 senior citizen presentations on energy efficiency programs and shared information about saving energy to a total of 1,235 seniors in the company service area.

As part of National Energy Awareness Month in October, Idaho Power held its third 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 and other needs of Idaho Power's Corporate Communications department. The initiative staff supplied information for various Idaho Power publications, such as *News Scans* and the *Connections* customer newsletter, as well as Idaho Power's Facebook page.

During 2014, the initiative's goals are to increase program participation and promote education and energy-saving ideas that result in energy-efficient and conservation-oriented behaviors and choices. Based on guidance from EEAG, plans for 2014 include investigating additional non-traditional marketing partnerships, such as alliances with churches, senior centers, neighborhood associations, and others.

Additional 2014 goals include the following:

- Develop and enhance the new SEEK program and explore the possible implementation of a similar kit program for high school students.
- Play a significant role in Idaho Power's campaign to educate customers about their energy use through Idaho Power's online Account Manager.

- Work with Idaho Power program specialists, partners, and participating contractors to influence behavioral change, particularly when energy efficiency upgrades are made.
- Evaluate energy efficiency educational materials and channels and either develop or revise as necessary, to increase customer reach, improve distribution, and enhance presentation opportunities.
- Evaluate existing data to determine how future research and data collection may be improved to further the Residential Energy Efficiency Education Initiative's goals.

## Student Energy Efficiency Kit Program

In 2013, based on a recommendation from EEAG, Idaho Power implemented the SEEK program, building on success of its previous Students for Energy Efficiency (SEE) program. The goals of this program were as follows:

- Leverage classroom teachers to provide fourth to sixth grade students in schools served by Idaho Power with quality, age-appropriate instruction regarding the wise use of electricity.
- Encourage the wise use of electricity at home by engaging students and their families in activities that support and reinforce the concepts taught at school.
- Provide appropriate tools to facilitate participation and incentives to encourage follow-through for all program participants (i.e., teachers, students, and parents).
- Cross-market Idaho Power's other residential energy efficiency programs.
- Provide Idaho Power with verifiable energy savings and other documented success metrics for this program.

An RFP for Idaho Power's SEEK program was issued in December 2012. In January 2013, four vendors responded and were evaluated by a cross-functional CREE team. After evaluating the proposals, the selection team split the award to include two separate vendors for the first program year. This strategy increased the amount of time required to manage the program but allowed Idaho Power to evaluate the strengths and weaknesses of each vendor before making a final selection. It also provided an opportunity to incorporate lessons learned during the first year of the program into the final program design.

During 2013, Resource Action Programs (RAP) partnered with Idaho Power to deliver the spring program and the National Energy Foundation (NEF) teamed up to deliver the fall program. Each vendor was given the same program parameters and worked with the program specialist to develop and customize classroom materials, including a cross-marketing flyer for Idaho Power energy efficiency programs and a take-home student kit containing energy efficiency measures for the home. Each vendor was encouraged to recommend implementation guidelines consistent with best practices based on their experience and provide a comprehensive program summary report detailing their results.

During the first year, 5,263 kits were delivered to 170 classrooms in 42 schools within Idaho Power's service area. To manage program size and expenses during this test year, program participants were recruited by invitation from a regional Idaho Power community education representative. Enrollment for spring semester was 2,773 and enrollment for fall was 2,490. 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 items such as three CFLs, a high-efficiency showerhead, an LED nightlight, a furnace filter alarm, a digital thermometer and a water-flow rate test bag, and 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.

In November 2013, Idaho Power fielded a survey to all teachers that participated in 2013 to gather feedback about their experiences and the two programs. The feedback from the program was extremely positive. Ultimately, Idaho Power selected RAP as its vendor based on a number of factors, including the preference expressed by teachers who had participated in both programs. Teachers suggested many ways to improve the program, including a redesign of the kit box to make it fit more easily into student backpacks. In 2014, Idaho Power plans to explore an open-enrollment concept to help determine the most appropriate sustainable size for the program. The results of the survey are located 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 2011 through October 2013 and covers future plans for the 2013 to 2014 program.

Three main desired outcomes of the Easy Savings Program are to educate recipients about saving energy in their homes by using energy wisely, to allow hands-on experience while installing a low-cost measure, and to 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 November 2013, all 4,255 of the two-year kit supply from the 2011 to 2012 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 445 completed surveys received from customers describing their experience in installing kit items in their homes during the 2012 to 2013 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-three percent of household respondents reported they have, or will, lower their heat during the day, and 86 percent reported they will lower their heat at night. Eighty-six percent of the households reported installing both CFLs provided in the kit, and another 10 percent said they installed one of the CFLs. Eighty-two percent of the households reported installing the high-efficiency showerhead.

Overall, survey results showed that over 58 percent of the households that received the kits and returned a survey installed five or more kit items. Seventy-seven 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 2012 to 2013 program, three gift certificates valued at \$100 each were provided by CAPAI to encourage survey completion. A drawing from all returned surveys was held January 2014. Three households won a \$100 gift certificate.

For the 2013 to 2014 program, checks totaling \$125,000 were sent by Idaho Power in September 2013 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 2013, an order for 2,127 kits was placed by CAP agencies. Kits were shipped from the vendor and received at CAP agencies in October 2013 for distribution to customers throughout the 2013 to 2014 LIHEAP season.

Upon completion of kit distribution and receipt of corresponding survey results for the 2013 to 2014 program, Idaho Power and CAPAI will consider program changes for the future.

## Residential Economizer Project Study

A Residential Economizer Project Study was performed in Idaho during 2011 and 2012 by Idaho Power, IDL, and NEEA. The study involved fitting 34 Idaho residential houses with ventilation systems that draw cool, outside air into the A/C system of a house during predetermined conditions. The goal was to reduce the summer cooling energy required to cool the house by reducing the operating time of the A/C mechanical system. Installation of data-logging equipment, monitoring data collection, and preparing the energy analysis report was performed by the IDL. A final report was completed in December 2012 and delivered to Idaho Power in January 2013. NEEA was involved with four components during the two years. Components included a baseline energy study, contractor participant survey, residential participant survey, and an optional transformation report based on the findings in the final report. NEEA delivered the baseline energy study and the two surveys. NEEA then reviewed the findings in the final report and determined that the energy savings obtained were not sufficient enough

to initiate a transformation study to quantify the impact residential economizers would have across the region. A copy of the report is included in *Supplement 2: Evaluation*.

## 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 managers work closely with Idaho Power CRs assigned to commercial market segments to capitalize on their established relationships with customers.

The 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-savings opportunities at their business.

In 2013, Idaho Power carried out its plan to capitalize on effective customer projects by developing seven success stories highlighting customers' 2013 energy efficiency projects for posting on Idaho Power's website. Of the seven, three posted in 2013 and the remaining four will post early 2014. Copies of the three posted 2013 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 2013, 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 building-simulation users group, conducting Lunch & Learn sessions held at various design and engineering firms, and offering a tool loan library. The tool loan library gives customers access to equipment that enables them to measure and monitor energy consumption on various systems within their operation.

In 2013, the Commercial Education Initiative supported two organizations that provide professional accreditation to their members. IBOA offers Building Operator Certification (BOC) to train building operators in the energy efficiency operation of their facilities. 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. Idaho Power partnered with NEEA and BOMA of Boise to sponsor a Kilowatt Crackdown™ competition. The Kilowatt Crackdown is a commercial building energy competition with a goal of teaching participants how to benchmark energy performance, analyze data,

develop action plans, and implement energy efficiency strategies that encourage wise energy use and reduction of operational costs.

Plans for 2014 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 Northwest Power and Conservation Council (NPCC) 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 NPCC, 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 NPCC, 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 2013, Idaho Power staff participated in all of the RTF's meetings and was involved in various sub-committees, including the RTF Policy Advisory Committee.

Much of the efforts at the RTF during 2013 were focused on bringing measures and documentation in line with the protocols and guidelines put in place in 2012. Every RTF measure was reviewed for compliance with the guidelines and a resulting gap analysis was presented for each measure.

The ongoing results were presented to the RTF during monthly meetings. Any measures requiring a status change and, if applicable, a recommended work plan to bring the measure into full compliance was approved by RTF members. Idaho Power has supported this process by completing measure prioritization surveys and participating in sub-committees where much of the work to bring measures into compliance is taking place.

Another significant undertaking of the RTF during 2013 was the calibration of the residential building energy model commonly referred to as the SEEM model. In 2013, the results from the region-wide 2011 RBSA study, which included on-site home inspections of a regional representative sample of single-family, multifamily, and manufactured homes, were made available. The study gathered data on lighting, appliances, heating systems, supplemental fuel use, and the level of weatherization of the home, along with demographic characteristics and billing consumption data, was analyzed by the RTF to calibrate the SEEM model inputs. Idaho Power participated in all four sub-committee meetings that occurred during 2013 and provided feedback on the proposed methodologies and support documentation prepared by RTF contract staff.

Other work done by the RTF, as a result of the RBSA data releases, and corresponding SEEM model updates that will impact Idaho Power residential savings includes changing the definition of the

Last Measure In (LMI) methodology. Historically, when deemed savings were estimated using SEEM, a prototype home would be entered into the model with pre-determined baseline characteristics, including level of weatherization and other average home building characteristics. The corresponding annual heat load estimated by the baseline SEEM model annual kWh would then be compared to annual kWh by re-running the model to reflect a change in the measure being analyzed. In October 2013, the RTF approved the adoption of aligning the base case SEEM models to RBSA data to replace the old inputs. The RTF also agreed to change the LMI methodology to look at the LMI savings relative to the savings as if a full package of measures were modeled at one time. The definition of what should be included in a full package of measures could not be agreed on during November 2013 sub-committee meetings and will be brought before the RTF in early 2014. Full details of the methodology change and the October 2013 meeting materials can be found on the RTF website at <http://rtf.nwcouncil.org/meetings/2013/10/>.

## University of Idaho Integrated Design Lab

Idaho Power is a founding supporter of the IDL. The IDL is dedicated to the development of high-performance energy efficient buildings in the Intermountain West. Idaho Power has worked with the lab since its inception in 2004, as part of efforts to educate customers about the value of energy efficiency to businesses, as well as to the businesses' customers. In 2013, Idaho Power entered into an agreement with IDL to perform the following eleven tasks.

### ***Building Metrics Labeling***

The goal of this task was to expand on the 2012 development of Building Metrics Labeling (BML), a graphical display of four building metrics in a single sheet. The metrics displayed are Energy Use Intensity (EUI), ENERGY STAR score, Walkability, and Space Daylit Area. The purpose of the sheets is to increase awareness of building energy use and promote energy efficiency during the sale or lease of commercial properties.

The focus in 2013 was to create a web-based portal for self-directed use of a building's data to create BML sheets. By the end of 2013, the website was fully functional in a beta version. It is anticipated that the final version will be available for public use in early 2014.

In addition to creating the website, the IDL followed up with previous users of the BML sheets and received feedback that was incorporated into the web site process as well as the graphics of the sheets. 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, 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 2013, 21 technical training lunches were held in Boise, Pocatello, and Ketchum. The trainings were coordinated directly with architecture and engineering firms and organizations, and were attended by a total of 234 architects, engineers, interior designers, and project managers.

The topics of the lunch sessions (and quantity of each) were: *Daylight Performance Metrics From Human Studies and Annual Simulation* (1), *Architectural HVAC Integration Strategies* (4), *Radiant System Design Considerations* (1), *Daylighting in Buildings: Getting the Details Right* (1), *HVAC 101*

and IECC 2009 (1), *High Performance Classrooms* (1), *Deep Energy Retrofits: Operations and Maintenance* (1), *High Performance Envelopes-Air Barriers* (2), *High Performance Retrofits* (1), *Demand Control Ventilation* (1), *Hybrid Cooling Strategies* (1), *Energy Plus/Open Studio Workflow* (1), *Right Sizing of Existing HVAC Systems* (3), *Daylight in Buildings: Health, Productivity & Satisfaction* (1), and *Hybrid Ground Source Heat Pump Systems* (1).

A technical training session was also provided to Idaho Power MCRs, titled *Operational Savings Opportunities*. This session focused on operational efficiencies and examples of opportunities seen in the Idaho Power service area, and provided information on free resources available that representative can provide their customers. The *2013 Lunch and Learn* 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 2013, the title of the series was *From Origins to Operations—Envisioning, Financing, Designing and Operating High Performance Buildings*, and focused on the integrated design approach to procuring high-performance buildings. Four sessions were held that featured topics that support this concept. The topics were *The Business Case for Green Developers*, *Total Value Analysis—Capital Markets and Competitive Realities*, *Moving Toward Net Zero: CIRS Case Study*, and *Findings from the Kilowatt Crackdown*.

Each session lasted 1.5 hours of lecture followed by time for questions. The sessions were held at Idaho Power's CHQ and were offered as live broadcasted webinars. Between the live and remotely broadcasted presentations, there were 158 participants in total. The report is located in the IDL section of *Supplement 2: Evaluation*.

### **Building Simulation Users Group**

The goal of this task was to facilitate the Idaho Building Simulation Users Group (BSUG), which is designed to improve the energy efficiency-related simulation skills of local design and engineering professionals.

In 2013, 13 monthly BSUG sessions were hosted by the IDL. In most cases the IDL taught the sessions themselves or brought in outside speakers. For two sessions, the IDL hosted the remote viewing of sessions taught by the Building Energy Simulation Forum in Portland. Also in 2013, the IDL conducted two BSUG sessions in Pocatello, Idaho. The sessions were made available remotely and were attended by a total of 193 professionals in person, and 60 professionals remotely.

The IDL conducted a market assessment of building simulation users in Boise in 2012 with the purpose of presenting statistics about the adoption of simulation in the Boise area. The *2012 Building Simulation Market Assessment* report (published in December 2013) is located in the IDL section of *Supplement 2: Evaluation*.

Finally, a BSUG website was developed and launched in early 2013. This website contains modeling resources and relevant links, training resources, an archive of BSUG video footage, a user forum, upcoming events, and the market assessment.

## **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 2013 the IDL provided technical assistance on 47 Phase I projects, 12 Phase II projects, and three Phase III projects. Phase III projects were all existing buildings, with a combined affected area of 556,000 square feet.

## **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 have 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 2013 Annual Report*.

## **Tool Lending Library**

The goal of this task 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.

The inventory of the tool loan library, 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 service area to borrow at no cost, in order to aid in the evaluation of energy efficiency projects and equipment they are considering.

In 2013, tools were loaned out 33 times. Most of the tools were loaned to engineering firms or equipment representatives. Other tools were loaned to educational institutions, manufacturing plants and office/commercial facilities. The report is located in the IDL section of *Supplement 2: Evaluation*.

## **Simulation QA, Load Profiles and Baselines**

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 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 2013, four highly visible and innovative projects were analyzed, consisting of a public safety building, a university classroom building, a downtown high-rise, and a large technology company project.

### **Multifamily Cost-Effectiveness**

The goal of this task was to expand on the 2012 mission to investigating multifamily new construction measures to determine the potential for new program incentives. The results of the research were presented to Idaho Power for analysis. Idaho Power is in the process of evaluating the results to determine whether incentives offered to multifamily dwellings to invest in energy efficiency could be cost-effective. 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 energy use of heat pumps in commercial buildings against other technologies. The tool was developed in 2013, and will undergo various testing in early 2014, with the intent of releasing a fully-vetted version to the public in 2014. The report is located in the IDL section of *Supplement 2: Evaluation*.

### **Daylight Harvesting Demonstration Education and Training**

The goal of the Daylight Harvesting Demonstration task in 2013 was to expand on the 2012 task of creating a hands-on demonstration and training area 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.

Thirteen Daylight Harvesting Lighting Controls system classes were held in 2013. These classes were attended by a total of 44 participants, representing 162 contact 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. Course evaluations were positive and encouraged continuation of this type of training in the future. The report is located in the IDL section of *Supplement 2: Evaluation*.

The contract between Idaho Power and the IDL will continue through 2014. In 2014 the IDL will continue or expand work on the BML sheets, the Lunch & Learn sessions, the Fall Educational Series, the BSUG, foundational services, building efficiency verification, the tool lending library, simulation QA, load profiles, baselines, the heat pump calculator and daylight demonstrations. In addition, they will begin work on two new tasks—Idaho Power CR training and a residential heat pump calculator. The Idaho Power CR training task will focus on transferring knowledge from past building operations research and scoping audits of commercial facilities conducted by the IDL to Idaho Power CRs.

The residential heat pump calculator task will leverage the tool developed in the 2013 heat pump calculator task and adapt it to apply to residential applications.

## 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 one application for LEEF in 2013. The submitted project consisted of installing a new solar thermal water heating system with a backup tankless water heater. Idaho Power convened a working group of engineers and cost-effectiveness analysts to review the application and request additional information. It was discovered through review that the backup tankless water heater would be gas-fired and therefore the solar thermal system would be offsetting natural gas consumption rather than electricity consumption. For this reason the project was not funded.

## 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 most recent example of this was the adoption of the 2009 IECC that became effective in Idaho on January 1, 2011. The 2012 IECC was published in 2012, and the Idaho Building Code Board took public comments on whether or not to pursue a similar code update for Idaho based on the latest 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 Codes 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*. The recommendation was adopted by the Idaho Building Code Board on October 15, 2013, and will be presented in the 2014 legislature session. If approved by the legislature, the changes will go into effect January 1, 2015.

## Third-Party, Independent Verification

Idaho Power recognizes that the timely, credible, and transparent evaluation of all its DSM programs is critical to ensure maximum program performance and the accurate reporting of program energy savings. Third-party contractors are used to provide primary research and impact, process, and market evaluations. These evaluations and research help ensure programs are administered effectively and best-practice specifications are met. Reports from these evaluations provide valuable recommendations for program improvement and help to validate energy savings achieved through the company's DSM programs.

In 2013, process evaluations were completed by third-party contractors on the following DSM programs: WAQC, Weatherization Solutions for Eligible Customers, ENERGY STAR Homes Northwest, Residential Energy Efficient Lighting, and H&CE Program. An impact evaluation was completed for the Irrigation Efficiency Rewards program. Copies of the reports can be found in *Supplement 2: Evaluation*.

In addition, Idaho Power uses third-party contractors to perform QA and OSVs for most programs. The H&CE Program, Home Improvement Program, ENERGY STAR Homes Northwest, Easy Upgrades, and Building Efficiency programs use third-party contractors to perform QA or OSVs on approximately 10 percent of completed customer projects. The Energy House Calls and WAQC programs contract with third-party experts to perform QA analyses on approximately 5 percent of customer completed projects.

The company also funds and participates in the RTF. The RTF is an advisory committee that was created in 1999 to develop regional standards and to establish deemed savings derived from energy efficiency programs and measures. Idaho Power uses the RTF as a source for information regarding energy efficiency programs and measures and uses the RTF databases to provide deemed-savings estimates for many of the energy efficiency measures implemented as part of the company's DSM programs.

It is anticipated that in 2014, Idaho Power will contract with third-party evaluators to complete process evaluations for the Custom Efficiency program and impact evaluations for the Residential Energy Efficient Lighting, Irrigation Peak Rewards, Shade Tree Project, Home Energy Audit program, and ENERGY STAR Homes Northwest programs.

The *2010–2014 Evaluation Plan* can be found in *Supplement 2: Evaluation*.

## Idaho Power's Internal Energy Efficiency Commitment

Idaho Power's continued commitment toward promoting energy efficiency extends beyond encouraging, providing incentives, and educating its customers.

At the annual shareholders meeting held in May 2013, IDACORP, Inc., and Idaho Power issued the second sustainability report: *Alignment*. This report highlighted the company's continuing efforts to operate in a manner that supports financial, environmental, and social stewardship. The sustainability report featured articles highlighting the company's long-standing commitment to operating in a sustainable manner, including Idaho Power's role in promoting economic development within the Idaho Power service area and upgrading the Niagara Springs fish hatchery to enhance fish egg incubation and fry rearing. IDACORP plans to issue its third sustainability report in May 2014.

View the most recent report at

[https://www.idahopower.com/pdfs/AboutUs/sustainabilityReport/2012\\_Sustainability\\_ReportFinal.pdf](https://www.idahopower.com/pdfs/AboutUs/sustainabilityReport/2012_Sustainability_ReportFinal.pdf).

The Idaho Power Green Team, conducted by Idaho Power and its employees, championed several sustainable activities during its fourth year. In 2013, projects included coordinating monthly Green Bag educational seminars, supporting company-wide alternative transportation efforts, and managing the project that composts the organic portion of the company cafe's wastes.

Idaho Power's CHQ continued to participate in the strategic elimination of power loads during peak use through the FlexPeak Management program. EnerNOC provided Idaho Power with auditing assistance, energy-monitoring software, demand-reduction performance monitoring, coaching, and other related services. EnerNOC works closely with Idaho Power to estimate its reduction potential accurately. Unlike other program participants, Idaho Power does not receive any financial incentives to participate.

In 2013, Idaho Power committed to reduce its electrical consumption by 100 kW during demand reduction events. The CHQ was not able to participate in the first two events of the season, which were initiated the first week in July, due to work being done with the building's new chillers

(a main component of the building's A/C system). The CHQ did participate in the third event, which was initiated the second week in July. The average reduction achieved by the facility during that event was 307 kW (at the meter), which exceeded the nominated amount. The maximum hourly reduction was 448 kW during that event. Reductions are mostly obtained by turning off lights, adjusting A/C set points, decreasing fan speeds, and curtailing elevator use. The facility reduction plan in place could be executed at any time to reduce electricity demand if necessary.

As mentioned above, the installation of the new more efficient TurboCore chillers at the CHQ was initiated and completed in 2013.

During 2013, Idaho Power continued with T-12 to T-8 fluorescent lighting retrofits at the Twin Falls Operation Center, Twin Falls Silvers Building, over half of Maintenance and Equipment Building at the BOC, the Salvage Center, and Equipment Resource Pool.

A lighting retrofit project was completed at the Hagerman Maintenance shop. T-12 fluorescent fixtures were replaced with T-8 fixtures, metal halide fixtures were replaced with T-8 and LED fixtures, and incandescent lamps were replaced with compact fluorescent lamps. Occupancy sensors were added, where appropriate, for a total savings of approximately 45,000 kWh annually at the shop. Additionally, the project provided overall better lighting and safer working conditions.

In 2013, the Boise Campus West (BCW) project incorporated several energy-efficient attributes. These attributes included using indirect clerestory windows and placing Dyson hand-insertion electric air dryers, water-saving auto on/off sinks, and dual-flush toilets in the restrooms. Dimmable LED lighting fixtures were also used throughout the facility.

Idaho Power installed a solar-powered LED light array in the CHQ south parking lot, which is interconnected to the grid. The former system consisted of sodium vapor lamps. The new LED system saves approximately 12,600 kWh annually and is designed to produce as much electricity during the day as it consumes at night while providing enhanced lighting quality.

Idaho Power retrofitted its CHQ lobby with LED fixtures, replacing old inefficient metal halide recessed fixtures. The light quality improved and the retrofit had an energy savings of 82 percent, leading to saving approximately 45,000 kWh annually.

The company conducted an assessment of the HVAC, building envelope, and control systems at the Boise Operations Center that revealed necessary improvements to enhance working conditions and maximize operational efficiencies.

Additionally, Idaho Power purchased three ENERGY STAR qualified manufactured homes in 2013 and placed them at Idaho Power's Oxbow Village—the employees housing area at the Oxbow facility.

In 2013, Idaho Power began the demolition and remodeling of the lower level interior of Plaza I and the Plaza II building. The intent in 2014 is to remodel these areas, along with CHQ fourth floor and an area on CHQ sixth floor, incorporating energy efficiency items, such as lower partitions, lighting retrofits, and lighting controls.

## REGULATORY INITIATIVES

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 these goals.

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 now included in base rates and tracked in the annual PCA mechanism.

To address the removal of financial disincentives, Idaho Power has in place an FCA mechanism in Idaho. The FCA began as a five-year pilot initiative between 2007 and 2012. In 2011, Idaho Power requested the FCA become permanent. On March 30, 2012, the IPUC approved the FCA mechanism to be permanent for the residential and small general-service customers and directed Idaho Power to file a proposal to adjust the FCA mechanism to capture the changes in load not related to energy efficiency programs. On September 28, 2012, the company submitted its Compliance Filing. On January 31, 2013, the IPUC issued Final Order No. 32731, directing the FCA mechanism continue unchanged.

Idaho Power continues to work toward an acceptable method to earn the authorized rate of return on its investments in DSM. As part of Case No. IPC-E-10-27, the IPUC issued Order No. 32245 allowing Idaho Power to account for Idaho customer incentives paid through the Custom Efficiency program as a regulatory asset beginning January 1, 2011. On October 31, 2012, the company filed Case No. IPC-E-12-24, requesting authority to include 2011 Custom Efficiency program incentive payments in base rates and to establish a mechanism to annually update base rates for future payments. The commission denied the request preferring to decide the specific elements of this mechanism in a future general rate case, see Order No. 32766. Because Idaho Power was not filing a general rate case in 2013, the company filed Case No. IPC-E-13-11 requesting authority to move the Custom Efficiency program incentives being held in a regulatory asset account and future program incentives to be recovered in the Energy Efficiency Rider account. The commission approved this request in Order No. 32826. In June 2013, the company moved the incentive amounts out of the regulatory asset account and into the Energy Efficiency Rider account and began collecting the Custom Efficiency Program incentives through the Idaho Rider.

### Fixed-Cost Adjustment

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 energy sales. This mechanism removes the financial disincentive that exists when Idaho Power promotes energy efficiency and demand response resources 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 22, 2013, the IPUC issued Order No. 32811, approving the company's request to implement FCA rates beginning June 1, 2013 for the 2012 fixed-cost deferrals. The overall rate adjustment was a

negative 0.30 percent for residential and small general-service customers to collect a combined \$8.9 million in under-collected fixed costs. This adjustment was a reduction of \$1.4 million from the previous year's FCA. Residential customers experienced a rate decrease of 0.0258 cents/kWh, while small general-service customers experienced a decrease of 0.0335 cents/kWh. The rate will be in place until May 31, 2014.

## Custom Efficiency Incentive Recovery

In 2011, the IPUC authorized Idaho Power to account for Custom Efficiency program incentive payments as a regulatory asset and, in 2012, the company requested authorization to include Custom Efficiency incentives in base rates. On March 21, 2013, the commission issued Order No. 32766 denying the company's request to place recovery of Custom Efficiency incentive payments in customer rates. The order reflects the commission's opinion that a general rate case proceeding is the appropriate forum to decide the interest rate and amortization period in this issue.

On April 15, 2013, Idaho Power filed an application in Case No. IPC-E-13-11 for authorization to recover the regulatory asset associated with Idaho Custom Efficiency program incentive payments through the Energy Efficiency Rider mechanism. This request included incentive payments made between January 1, 2011 and June 1, 2013 that had been placed in a regulatory asset account. Idaho Power also requested future incentive payments be recovered through the Energy Efficiency Rider until such time that the issue of capitalized investment of demand side resources can be fully addressed in a future general rate case. The commission, on June 12, 2013, issued Order No. 32826 approving the company's request.

## Energy Efficiency Rider—Prudence Determination of Expenditures

On April 3, 2013, Idaho Power filed Case No. IPC-E-13-08 with the IPUC requesting an order finding the company had prudently incurred \$46,356,160 in DSM expenses in 2012, including \$25,857,603 in Idaho Energy Efficiency Rider expenses, \$6,019,109 in Custom Efficiency program incentive expenses and \$14,479,447 in demand response program incentive expenses. The filing included three reports: *Demand-Side Management 2012 Annual Report, Supplement 1: Cost Effectiveness*, and *Supplement 2: Evaluation*. In Final Order No. 32953, dated December 20, 2013, the IPUC deemed \$46,092,747 as prudently incurred. However, it declined to decide the reasonableness of Idaho Power's Rider funded labor-related expense increase of \$89,601 in 2011 and \$173,811 in 2012, again deferred a ruling and offered the company another opportunity to provide sufficient evidence to support the prudence of the increases. The commission also ordered the company to file a report within 60 days of the order, explaining the company's perspective on EEAG's purpose and value, whether or not EEAG is working, and how EEAG could be improved. On February 18, 2014, Idaho Power filed its report on the EEAG. Lastly, the commission specified that the Idaho Rider balance as of December 31, 2012 was \$4,358,076 and found it is reasonable that the company accrue carrying charges on that balance starting January 1, 2013.

## Continuation of Demand Response Programs

On June 21, 2013 the IPUC issued a notice of public workshops for Case No. IPC-E-13-14, the continuation of Idaho Power's A/C Cool Credit, Irrigation Peak Rewards, and FlexPeak Management programs for 2014 and beyond. This notice set the dates for four workshops to be held at Idaho Power headquarters on July 10, July 23, August 7, and August 19. The company and stakeholders

ultimately added a fifth workshop on August 27. These workshops were attended by Idaho Power, staff members from both the IPUC and the OPUC, and other stakeholders. At the August 27 workshop settlement discussion were held which resulted in a settlement agreement amongst the parties. On October 2, 2013, Idaho Power filed a motion with the IPUC to approve the settlement agreement for the continuation of Idaho Power's demand response programs in Idaho. On November 12, 2013, the IPUC issued Order No. 32923 approving the settlement agreement.

On October 9, 2013, Idaho Power attended a demand response settlement workshop at the OPUC for Case No. UM 1653. On December 19, 2013, the OPUC issued Order No. 13-482 approving a settlement agreement that was similar to the settlement agreement approved in Idaho.

These cases and the resulting settlement with stakeholders enable Idaho Power to continue to offer its demand response programs in 2014 and beyond.

## Continued Commitment

In the past several years Idaho Power has included in this report a section titled Continued Commitment per IPUC directive in Order No. 30267. Because the IPUC removed this directive in Order No. 32505 and in an effort to streamline and reduce duplicate reporting, the company has included items discussing the continued expansion and broad availability of energy efficiency and demand response programs in the specific program write-ups. Information on building code improvement activity, third-party, independent verification, and Idaho Power's internal energy efficiency commitment was moved to the section of the report titled "Other Programs and Activities."

## 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 also encourage the wise and efficient use of energy.

During 2013, the Time of Day (TOD) Pilot pricing plan was open to residential customers in Idaho. Idaho Power also attempts to identify and notify new electric vehicle owners to see if they might be interested in participating in the plan. 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.

In late spring 2013, participants were mailed an informational brochure on the TOD pricing structure, a reminder of the seasonal rate changes, and an encouragement to visit Idaho Power's website (<http://www.idahopower.com/TOD>).

The company is conducting an ongoing study of the impact of this new rate plan on customer's usage. Preliminary findings were shared with the IPUC staff in June 2013. Idaho Power expects the study to be completed in 2014.

In November 2013, the company conducted a customer satisfaction survey of the TOD pricing plan participants. A total of 384 telephone interviews were conducted from among the 1,527 plan participants. High-level survey results indicate TOD participants are highly satisfied with the pricing plan. TOD participants report making changes to their energy usage since enrolling in the TOD plan,

but most perceive the changes only moderately impacted their lives. Two-thirds perceive their electric bills stayed the same or gone down since enrollment. Three-quarters of TOD participants are highly satisfied with the communications received from Idaho Power. The survey findings will help guide the company in future communications with TOD participants and with future development of the TOD plan.

As of the end of 2013, over 1,500 Idaho customers were TOD plan participants.

## APPENDICES

This report includes five appendices. Appendix 1 contains financial information for 2013, 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 2013. Appendix 4 shows similar data as Appendix 3 but also includes data for past years' program performance and B/C ratios from the utility 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 *2013 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**

<b>Idaho Energy Efficiency Rider</b>	
2013 Beginning Balance	\$ 4,040,622
2013 Funding plus Accrued Interest	37,113,246
<b>Total 2013 Funds</b>	<b>41,153,868</b>
2013 Expenses	(20,800,793)
Transfer of 2011–2013 Rider Labor Increases out of the Idaho Rider	532,844
Transfer of Custom Efficiency Regulatory Asset (182317) Account Balance to ID Rider per IPUC Order No. 32826	(14,200,174)
<b>2013 Ending Balance</b>	<b>\$ 6,685,745</b>
<b>Oregon Energy Efficiency Rider</b>	
2013 Beginning Balance	\$ (3,914,936)
2013 Funding plus Accrued Interest	1,136,292
<b>Total 2013 Funds</b>	<b>(2,778,643)</b>
2013 Expenses	(915,540)
<b>2013 Ending Balance</b>	<b>\$ (3,694,183)</b>
<b>NEEA Payments</b>	
2013 NEEA Payments	\$ 3,313,058
<b>Total</b>	<b>\$ 3,313,058</b>

**Appendix 2. 2013 DSM expenses by funding source (dollars)**

Sector/Program	Idaho Rider	Oregon Rider	Non-Rider Funds	Total
<b>Energy Efficiency/Demand Response</b>				
<b>Residential</b>				
A/C Cool Credit.....	\$ 537,163	\$ 29,731	\$ 96,964	\$ 663,858
Ductless Heat Pump Pilot .....	230,761	6,814	0	237,575
Energy Efficient Lighting .....	1,331,113	25,812	0	1,356,926
Energy House Calls .....	164,173	35,822	0	199,995
ENERGY STAR® Homes Northwest .....	344,217	4,664	4,000	352,882
Heating & Cooling Efficiency Program .....	317,973	11,700	0	329,674
Home Energy Audit.....	88,491	248	0	88,740
Home Improvement Program.....	299,032	0	465	299,497
Home Products Program .....	391,348	14,117	50	405,515
Oregon Residential Weatherization.....	0	8,248	768	9,017
Rebate Advantage.....	58,674	2,097	0	60,770
See ya later, refrigerator® .....	571,304	17,750	0	589,054
Weatherization Assistance for Qualified Customers....	0	0	1,391,677	1,391,677
Weatherization Solutions for Eligible Customers.....	1,239,132	0	28,659	1,267,791
<b>Commercial/Industrial</b>				
Building Efficiency .....	1,489,195	17,839	0	1,507,035
Custom Efficiency.....	2,402,903	60,245	3,077	2,466,225
Easy Upgrades.....	3,258,427	101,363	0	3,359,790
FlexPeak Management.....	108,842	137,184	2,497,589	2,743,615
Oregon Commercial Audit.....	0	5,090	0	5,090
<b>Irrigation</b>				
Irrigation Efficiency Rewards .....	2,277,059	134,789	29,539	2,441,386
Irrigation Peak Rewards.....	407,496	30,117	1,634,494	2,072,107
<b>Energy Efficiency/Demand Response Total .....</b>	<b>\$ 15,517,306</b>	<b>\$ 643,631</b>	<b>\$ 5,687,283</b>	<b>\$ 21,848,220</b>
<b>Market Transformation</b>				
NEEA .....	3,147,405	165,653	0	3,313,058
<b>Market Transformation Total .....</b>	<b>\$ 3,147,405</b>	<b>\$ 165,653</b>	<b>\$ 0</b>	<b>\$ 3,313,058</b>
<b>Other Programs and Activities</b>				
<b>Residential</b>				
Residential Economizer Pilot .....	74,901	0	0	74,901
Residential Energy Efficiency Education Initiative .....	395,668	20,498	0	416,166
<b>Commercial/Industrial</b>				
Commercial Energy Efficiency Education Initiative.....	63,451	3,339	0	66,790
<b>Other</b>				
Energy Efficiency Direct Program Overhead.....	361,910	19,047	0	380,957
<b>Other Programs and Activities Total .....</b>	<b>\$ 895,929</b>	<b>\$ 42,884</b>	<b>\$ 0</b>	<b>\$ 938,814</b>
<b>Indirect Program Expenses</b>				
Commercial/Industrial/Irrigation Overhead .....	136,811	7,708	0	144,518
Energy Efficiency Accounting & Analysis .....	802,258	42,316	137,854	982,428
Energy Efficiency Advisory Group.....	5,390	285	0	5,674
Residential Overhead .....	124,825	7,056	49	131,931
Special Accounting Entries*.....	13,838,199	6,007	(14,367,471)	(523,265)
<b>Indirect Program Expenses Total .....</b>	<b>\$ 14,907,483</b>	<b>\$ 63,371</b>	<b>\$ (14,229,567)</b>	<b>\$ 741,287</b>
<b>Grand Total .....</b>	<b>\$ 34,468,123</b>	<b>\$ 915,540</b>	<b>\$ (8,542,284)</b>	<b>\$ 26,841,379</b>

\* Special Accounting Entries include a transfer of \$14,200,174 from the Regulatory Asset Acct to the Idaho Rider as approved by the IPUC in Order No. 32826. These are related to Idaho Custom Efficiency Incentives from January 1, 2011, to May 31, 2013.

## Appendix 3. 2013 DSM program activity

Program	Participants	Total Costs		Savings		Measure Life (Years)	Nominal Levelized Costs <sup>a</sup>		
		Utility <sup>b</sup>	Resource <sup>c</sup>	Annual Energy (kWh)	Peak Demand <sup>d</sup> (MW)		Utility (\$/kWh)	Total Resource (\$/kWh)	
<b>Demand Response</b>									
A/C Cool Credit .....	n/a homes	\$ 663,858	\$ 663,858	n/a	n/a	n/a	n/a	n/a	n/a
Irrigation Peak Rewards .....	n/a service points	2,072,107	2,072,107	n/a	n/a	n/a	n/a	n/a	n/a
FlexPeak Management <sup>1</sup> .....	100 sites	2,743,615	2,743,615	n/a	48.0	n/a	n/a	n/a	n/a
<b>Total</b> .....		<b>\$ 5,479,580</b>	<b>\$ 5,479,580</b>	<b>n/a</b>	<b>48.0</b>				
<b>Energy Efficiency</b>									
<b>Residential</b>									
Ductless Heat Pump Pilot .....	215 homes	237,575	992,440	589,142		15	\$ 0.032	\$ 0.132	
Energy Efficient Lighting .....	1,083,906 bulbs	1,356,926	4,889,501	9,995,753		8	0.016	0.058	
Energy House Calls .....	411 homes	199,995	199,995	837,261		18	0.017	0.017	
ENERGY STAR <sup>®</sup> Homes Northwest .....	267 homes	352,882	697,682	365,370		36	0.053	0.104	
Heating & Cooling Efficiency Program .....	210 projects	329,674	741,586	1,003,730		20	0.022	0.050	
Home Improvement Program .....	365 insulation projects	299,497	1,061,314	616,044		45	0.025	0.090	
Home Products Program .....	13,792 appliances/fixtures	405,515	702,536	885,980		12	0.041	0.071	
Oregon Residential Weatherization .....	14 home	9,017	14,369	14,907		30	0.035	0.055	
Rebate Advantage .....	42 homes	60,770	92,690	269,891		25	0.014	0.021	
See ya later, refrigerator <sup>®</sup> .....	3,307 refrigerators/freezers	589,054	589,054	1,442,344		6	0.061	0.061	
Weatherization Assistance for Qualified Customers	254 homes/non-profits	1,391,677	2,052,020	681,736		25	0.125	0.184	
Weatherization Solutions for Eligible Customers	166 homes	1,267,791	1,267,791	303,116		25	0.256	0.256	
<b>Sector Total</b> .....		<b>\$ 6,500,373</b>	<b>\$ 13,300,977</b>	<b>17,005,274</b>		<b>13</b>	<b>\$ 0.033</b>	<b>\$ 0.068</b>	
<b>Commercial</b>									
Building Efficiency .....	59 projects	1,507,035	3,942,880	10,988,934	1.1	12	0.012	0.032	
Easy Upgrades .....	1,392 projects	3,359,790	6,738,645	21,061,946		12	0.014	0.029	
<b>Sector Total</b> .....		<b>\$ 4,866,825</b>	<b>\$ 10,681,525</b>	<b>32,050,880</b>	<b>1.1</b>	<b>12</b>	<b>\$ 0.014</b>	<b>\$ 0.030</b>	
<b>Industrial</b>									
Custom Efficiency <sup>2</sup> .....	73 projects	2,466,225	5,771,640	21,370,350	2.4	12	0.010	0.024	
<b>Sector Total</b> .....		<b>\$ 2,466,225</b>	<b>\$ 5,771,640</b>	<b>21,370,350</b>	<b>2.4</b>	<b>12</b>	<b>\$ 0.010</b>	<b>\$ 0.024</b>	
<b>Irrigation</b>									
Irrigation Efficiency Rewards <sup>3</sup> .....	995 projects	2,441,386	15,223,928	18,511,221	3.0	8	0.016	0.098	
<b>Sector Total</b> .....		<b>\$ 2,441,386</b>	<b>\$ 15,223,928</b>	<b>18,511,221</b>	<b>3.0</b>	<b>8</b>	<b>\$ 0.016</b>	<b>\$ 0.098</b>	
<b>Energy Efficiency Portfolio Total</b>		<b>\$ 16,274,809</b>	<b>\$ 44,978,071</b>	<b>88,937,724</b>		<b>11</b>	<b>\$ 0.017</b>	<b>\$ 0.047</b>	

**Appendix 3. 2013 DSM program activity (continued)**

Program	Participants	Total Costs		Savings		Measure Life (Years)	Nominal Levelized Costs <sup>a</sup>	
		Utility <sup>b</sup>	Resource <sup>c</sup>	Annual Energy (kWh)	Peak Demand <sup>d</sup> (MW)		Utility (\$/kWh)	Total Resource (\$/kWh)
<b>Market Transformation</b>								
Northwest Energy Efficiency Alliance <sup>4</sup>		\$ 3,313,058	\$ 3,313,058	18,346,465				
<b>Other Programs and Activities</b>								
<b>Residential</b>								
Home Energy Audit		88,740	88,740					
Residential Economizer		74,901	74,901					
Residential Energy Efficiency Education Initiative		416,166	416,166					
<b>Commercial</b>								
Commercial Education Initiative		66,790	66,790					
Oregon Commercial Audits <sup>5</sup>	18 audits	5,090	5,090					
<b>Other</b>								
Energy Efficiency Direct Program Overhead		380,957	380,957					
<b>Total Program Direct Expense</b>		<b>\$ 26,100,089</b>	<b>\$ 54,803,353</b>	<b>107,284,189</b>	<b>54.4</b>			
Indirect Program Expenses		741,287						
<b>Total DSM Expense</b>		<b>\$ 26,841,379</b>						

<sup>a</sup> Levelized Costs are based on financial inputs from Idaho Power's 2011 IRP and calculations include line-loss adjusted energy savings.

<sup>b</sup> The total utility cost is all cost incurred by Idaho Power to implement and manage a DSM program.

<sup>c</sup> The TRC is the total expenditures for a DSM program from the point of view of Idaho Power and its customers as a whole.

<sup>d</sup> Summer Peak Demand is reported where program MW reduction is calculated specifically by project. Demand response program reductions are reported with 13% peak loss assumptions.

<sup>1</sup> Peak demand represents enrolled capacity of the program during summer 2013 and corresponds to the peak performance of the program—A/C Cool Credit and Irrigation Peak Rewards suspended in 2013.

<sup>2</sup> Custom Efficiency savings includes 24 Green Motors participants totaling 83,114 kWh of annual savings, not counted in project totals.

<sup>3</sup> Irrigation Efficiency includes 27 Green Motors participants totaling 66,465 kWh of annual savings, not counted in project totals.

<sup>4</sup> Savings are preliminary funding share estimates provided by NEEA.

### Appendix 4. Historical DSM expense and performance, 2002–2013

Program/Year	Participants	Total Costs		Savings and Demand Reduction			Measure Life (Years)	Levelized Costs <sup>a</sup>		Program Life Benefit/Cost Ratios <sup>b</sup>	
		Utility Cost <sup>c</sup>	Resource Cost <sup>d</sup>	Annual Energy (kWh)	Average Energy <sup>e</sup> (aMW)	Peak Demand <sup>f</sup> (MW)		Total Utility (\$/kWh)	Total Resource (\$/kWh)	Utility	Total Resource
<b>Demand Response</b>											
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					
<b>Total .....</b>		<b>\$ 22,690,894</b>	<b>\$ 22,690,894</b>								
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			1.43	1.43	
<b>Total .....</b>		<b>\$ 10,242,528</b>	<b>\$ 10,242,528</b>								
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					
2012.....	2,433	12,423,364	12,423,364			339.9					
2013.....	n/a	2,072,107	2,072,107			n/a					
<b>Total .....</b>		<b>\$ 55,752,937</b>	<b>\$ 55,752,937</b>								

**Appendix 4. Historical DSM expense and performance, 2002–2013 (continued)**

Program/Year	Participants	Total Costs		Savings and Demand Reduction			Measure Life (Years)	Levelized Costs <sup>a</sup>		Program Life Benefit/Cost Ratios <sup>b</sup>	
		Utility Cost <sup>c</sup>	Resource Cost <sup>d</sup>	Annual Energy (kWh)	Average Energy <sup>e</sup> (aMW)	Peak Demand <sup>f</sup> (MW)		Total Utility (\$/kWh)	Total Resource (\$/kWh)	Utility	Total Resource
<b>Residential Efficiency</b>											
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		
<b>Total .....</b>	<b>673</b>	<b>\$ 979,861</b>	<b>\$ 3,051,470</b>	<b>2,265,322</b>			<b>15</b>	<b>\$ 0.041</b>	<b>\$ 0.129</b>	<b>3.13</b>	<b>0.96</b>
Energy Efficiency Packets											
2002.....	2,925	755	755	155,757	0.02		7	0.001	0.001		
<b>Total .....</b>	<b>2,925</b>	<b>\$ 755</b>	<b>\$ 755</b>	<b>155,757</b>			<b>7</b>	<b>\$ 0.001</b>	<b>\$ 0.001</b>		
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		
<b>Total .....</b>	<b>5,692,952</b>	<b>\$ 10,417,057</b>	<b>\$ 18,144,031</b>	<b>124,342,406</b>			<b>8</b>	<b>\$ 0.012</b>	<b>\$ 0.021</b>	<b>7.27</b>	<b>4.18</b>
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		

## Appendix 4. Historical DSM expense and performance, 2002–2013 (continued)

Program/Year	Participants	Total Costs		Savings and Demand Reduction			Measure Life (Years)	Levelized Costs <sup>a</sup>		Program Life Benefit/Cost Ratios <sup>b</sup>	
		Utility Cost <sup>c</sup>	Resource Cost <sup>d</sup>	Annual Energy (kWh)	Average Energy <sup>e</sup> (aMW)	Peak Demand <sup>f</sup> (MW)		Total Utility (\$/kWh)	Total Resource (\$/kWh)	Utility	Total Resource
<b>Residential Efficiency</b>											
Energy House Calls											
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		
<b>Total .....</b>	<b>10,482</b>	<b>\$ 4,743,350</b>	<b>\$ 4,743,350</b>	<b>12,485,280</b>			<b>18</b>	<b>\$ 0.033</b>	<b>\$ 0.033</b>	<b>3.08</b>	<b>3.08</b>
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		
<b>Total .....</b>	<b>3,329</b>	<b>\$ 3,450,639</b>	<b>\$ 5,340,999</b>	<b>5,747,525</b>			<b>36</b>	<b>\$ 0.040</b>	<b>\$ 0.062</b>	<b>3.89</b>	<b>2.51</b>
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		
<b>Total .....</b>	<b>1,410</b>	<b>\$ 2,492,974</b>	<b>\$ 4,983,118</b>	<b>5,368,351</b>			<b>20</b>	<b>\$ 0.038</b>	<b>\$ 0.076</b>	<b>3.50</b>	<b>1.75</b>

**Appendix 4. Historical DSM expense and performance, 2002–2013 (continued)**

Program/Year	Participants	Total Costs		Savings and Demand Reduction			Measure Life (Years)	Levelized Costs <sup>a</sup>		Program Life Benefit/Cost Ratios <sup>b</sup>	
		Utility Cost <sup>c</sup>	Resource Cost <sup>d</sup>	Annual Energy (kWh)	Average Energy <sup>e</sup> (aMW)	Peak Demand <sup>f</sup> (MW)		Total Utility (\$/kWh)	Total Resource (\$/kWh)	Utility	Total Resource
<b>Residential Efficiency</b>											
Home Improvement											
2008.....	282	\$ 123,454	\$ 157,866	317,814	0.04		25	\$ 0.029	\$ 0.037		
2009.....	1,188	321,140	550,148	1,338,876	0.15		25	0.019	0.032		
2010.....	3,537	944,716	2,112,737	3,986,199	0.46		45	0.016	0.035		
2011.....	2,275	666,041	2,704,816	917,519	0.10		45	0.038	0.155		
2012.....	840	385,091	812,827	457,353	0.05		45	0.044	0.093		
2013.....	365	299,497	1,061,314	616,044	0.07		45	0.025	0.090		
<b>Total .....</b>	<b>8,487</b>	<b>\$ 2,739,939</b>	<b>\$ 7,399,708</b>	<b>7,633,805</b>			<b>45</b>	<b>\$ 0.023</b>	<b>\$ 0.062</b>	<b>2.94</b>	<b>1.09</b>
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		
<b>Total .....</b>	<b>75,218</b>	<b>\$ 3,306,479</b>	<b>\$ 5,388,730</b>	<b>6,881,761</b>			<b>12</b>	<b>\$ 0.053</b>	<b>\$ 0.086</b>	<b>1.98</b>	<b>1.21</b>
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		
<b>Total .....</b>	<b>65</b>	<b>\$ 50,542</b>	<b>\$ 118,022</b>	<b>96,701</b>			<b>30</b>	<b>\$ 0.037</b>	<b>\$ 0.086</b>	<b>3.95</b>	<b>1.69</b>

## Appendix 4. Historical DSM expense and performance, 2002–2013 (continued)

Program/Year	Participants	Total Costs		Savings and Demand Reduction			Measure Life (Years)	Levelized Costs <sup>a</sup>		Program Life Benefit/Cost Ratios <sup>b</sup>	
		Utility Cost <sup>c</sup>	Resource Cost <sup>d</sup>	Annual Energy (kWh)	Average Energy <sup>e</sup> (aMW)	Peak Demand <sup>f</sup> (MW)		Total Utility (\$/kWh)	Total Resource (\$/kWh)	Utility	Total Resource
<b>Residential Efficiency</b>											
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		
<b>Total .....</b>	<b>802</b>	<b>\$ 608,969</b>	<b>\$ 1,327,742</b>	<b>3,251,811</b>			<b>25</b>	<b>\$ 0.014</b>	<b>\$ 0.031</b>	<b>8.45</b>	<b>3.88</b>
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		
<b>Total .....</b>	<b>14,745</b>	<b>\$ 2,727,073</b>	<b>\$ 2,727,073</b>	<b>7,431,731</b>			<b>6</b>	<b>\$ 0.067</b>	<b>\$ 0.067</b>	<b>1.29</b>	<b>1.29</b>
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		
<b>Total .....</b>	<b>528</b>	<b>\$ 3,570,722</b>	<b>\$ 3,570,722</b>	<b>2,298,484</b>			<b>30</b>	<b>\$ 0.109</b>	<b>\$ 0.109</b>	<b>1.15</b>	<b>1.15</b>
Window AC Trade-Up Pilot											
2003.....	99	6,687	10,492	14,454			12	0.051	0.079		
<b>Total .....</b>	<b>99</b>	<b>\$ 6,687</b>	<b>\$ 10,492</b>	<b>14,454</b>			<b>12</b>	<b>\$ 0.051</b>	<b>\$ 0.079</b>		

**Appendix 4. Historical DSM expense and performance, 2002–2013 (continued)**

Program/Year	Participants	Total Costs		Savings and Demand Reduction			Measure Life (Years)	Levelized Costs <sup>a</sup>		Program Life Benefit/Cost Ratios <sup>b</sup>	
		Utility Cost <sup>c</sup>	Resource Cost <sup>d</sup>	Annual Energy (kWh)	Average Energy <sup>e</sup> (aMW)	Peak Demand <sup>f</sup> (MW)		Total Utility (\$/kWh)	Total Resource (\$/kWh)	Utility	Total Resource
<b>Residential—Weatherization Assistance for Qualified Customers (WAQC)</b>											
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		
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		
<b>Total .....</b>	<b>4,166</b>	<b>\$ 12,891,227</b>	<b>\$ 19,816,401</b>	<b>26,712,909</b>			<b>25</b>	<b>\$ 0.036</b>	<b>\$ 0.055</b>	<b>4.21</b>	<b>2.74</b>
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		
<b>Total .....</b>	<b>200</b>	<b>\$ 478,460</b>	<b>\$ 692,335</b>	<b>1,000,207</b>			<b>25</b>	<b>\$ 0.036</b>	<b>\$ 0.052</b>	<b>4.07</b>	<b>2.81</b>
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		
<b>Total .....</b>	<b>172</b>	<b>\$ 175,270</b>	<b>\$ 330,191</b>	<b>660,857</b>			<b>25</b>	<b>\$ 0.020</b>	<b>\$ 0.037</b>	<b>7.01</b>	<b>3.72</b>
<b>WAQC - All Total.....</b>		<b>\$ 13,544,957</b>	<b>\$ 20,838,927</b>	<b>28,373,973</b>			<b>25</b>	<b>\$ 0.036</b>	<b>\$ 0.055</b>	<b>4.24</b>	<b>2.76</b>

## Appendix 4. Historical DSM expense and performance, 2002–2013 (continued)

Program/Year	Participants	Total Costs		Savings and Demand Reduction			Measure Life (Years)	Levelized Costs <sup>a</sup>		Program Life Benefit/Cost Ratios <sup>b</sup>	
		Utility Cost <sup>c</sup>	Resource Cost <sup>d</sup>	Annual Energy (kWh)	Average Energy <sup>e</sup> (aMW)	Peak Demand <sup>f</sup> (MW)		Total Utility (\$/kWh)	Total Resource (\$/kWh)	Utility	Total Resource
<b>Commercial</b>											
Air Care Plus Pilot											
2003.....	4	\$ 5,764	\$ 9,061	33,976			10	\$ 0.021	\$ 0.033		
2004.....		344	344								
<b>Total .....</b>	<b>4</b>	<b>\$ 6,108</b>	<b>\$ 9,405</b>	<b>33,976</b>			<b>10</b>	<b>\$ 0.022</b>	<b>\$ 0.034</b>		
Building Efficiency Program											
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		
<b>Total .....</b>	<b>482</b>	<b>\$ 9,548,778</b>	<b>\$ 24,337,130</b>	<b>70,533,500</b>			<b>12</b>	<b>\$ 0.015</b>	<b>\$ 0.038</b>	<b>6.84</b>	<b>2.68</b>
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		
<b>Total .....</b>	<b>8,491</b>	<b>\$ 24,464,498</b>	<b>\$ 55,245,421</b>	<b>203,461,812</b>			<b>12</b>	<b>\$ 0.013</b>	<b>\$ 0.030</b>	<b>7.67</b>	<b>3.40</b>
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		
<b>Total .....</b>	<b>77</b>	<b>\$ 111,412</b>	<b>\$ 214,280</b>	<b>716,255</b>			<b>10</b>	<b>\$ 0.019</b>	<b>\$ 0.037</b>	<b>3.85</b>	<b>2.00</b>

**Appendix 4. Historical DSM expense and performance, 2002–2013 (continued)**

Program/Year	Participants	Total Costs		Savings and Demand Reduction			Measure Life (Years)	Levelized Costs <sup>a</sup>		Program Life Benefit/Cost Ratios <sup>b</sup>	
		Utility Cost <sup>c</sup>	Resource Cost <sup>d</sup>	Annual Energy (kWh)	Average Energy <sup>e</sup> (aMW)	Peak Demand <sup>f</sup> (MW)		Total Utility (\$/kWh)	Total Resource (\$/kWh)	Utility	Total Resource
<b>Commercial</b>											
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								
<b>Total .....</b>	<b>172</b>	<b>\$ 69,627</b>	<b>\$ 73,627</b>								
Oregon School Efficiency											
2005.....		86	86								
2006.....	6	24,379	89,771	223,368	0.03		12	\$ 0.012	\$ 0.044		
<b>Total .....</b>	<b>6</b>	<b>\$ 24,465</b>	<b>\$ 89,857</b>	<b>223,368</b>			<b>12</b>	<b>\$ 0.012</b>	<b>\$ 0.044</b>		
<b>Industrial</b>											
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		
<b>Total .....</b>	<b>935</b>	<b>\$ 43,256,651</b>	<b>\$ 97,985,248</b>	<b>369,305,821</b>			<b>12</b>	<b>\$ 0.013</b>	<b>\$ 0.029</b>	<b>7.85</b>	<b>3.47</b>

## Appendix 4. Historical DSM expense and performance, 2002–2013 (continued)

Program/Year	Participants	Total Costs		Savings and Demand Reduction			Measure Life (Years)	Levelized Costs <sup>a</sup>		Program Life Benefit/Cost Ratios <sup>b</sup>	
		Utility Cost <sup>c</sup>	Resource Cost <sup>d</sup>	Annual Energy (kWh)	Average Energy <sup>e</sup> (aMW)	Peak Demand <sup>f</sup> (MW)		Total Utility (\$/kWh)	Total Resource (\$/kWh)	Utility	Total Resource
<b>Irrigation</b>											
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		
<b>Total .....</b>	<b>6,832</b>	<b>\$ 18,867,358</b>	<b>\$ 77,979,298</b>	<b>112,123,230</b>			<b>8</b>	<b>\$ 0.025</b>	<b>\$ 0.102</b>	<b>5.05</b>	<b>1.72</b>
<b>Other Programs</b>											
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		
<b>Total .....</b>	<b>104</b>	<b>\$ 94,572</b>	<b>\$ 97,302</b>	<b>2,909,167</b>			<b>5</b>	<b>\$ 0.007</b>	<b>\$ 0.007</b>		
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								
<b>Total .....</b>		<b>\$ 527,505</b>	<b>\$ 527,505</b>								

**Appendix 4. Historical DSM expense and performance, 2002–2013 (continued)**

Program/Year	Participants	Total Costs		Savings and Demand Reduction			Measure Life (Years)	Levelized Costs <sup>a</sup>		Program Life Benefit/Cost Ratios <sup>b</sup>	
		Utility Cost <sup>c</sup>	Resource Cost <sup>d</sup>	Annual Energy (kWh)	Average Energy <sup>e</sup> (aMW)	Peak Demand <sup>f</sup> (MW)		Total Utility (\$/kWh)	Total Resource (\$/kWh)	Utility	Total Resource
<b>Other Programs</b>											
Comprehensive Lighting											
2011 .....		\$ 2,404	\$ 2,404								
2012 .....		64,094	64,094								
<b>Total .....</b>		<b>\$ 66,498</b>	<b>\$ 66,498</b>								
Distribution Efficiency Initiative											
2005 .....		21,552	43,969								
2006 .....		24,306	24,306								
2007 .....		8,987	8,987								
2008 .....		(1,913)	(1,913)								
<b>Total .....</b>		<b>\$ 52,932</b>	<b>\$ 75,349</b>								
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								
<b>Total .....</b>		<b>\$ 1,387,036</b>	<b>\$ 1,387,036</b>								
Home Energy Audit											
2013 .....		88,740	88,740								
<b>Total .....</b>		<b>\$ 88,740</b>	<b>\$ 88,740</b>								
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								
<b>Total .....</b>		<b>\$ 495,654</b>	<b>\$ 495,654</b>								

**Appendix 4. Historical DSM expense and performance, 2002–2013 (continued)**

Program/Year	Participants	Total Costs		Savings and Demand Reduction			Measure Life (Years)	Levelized Costs <sup>a</sup>		Program Life Benefit/Cost Ratios <sup>b</sup>	
		Utility Cost <sup>c</sup>	Resource Cost <sup>d</sup>	Annual Energy (kWh)	Average Energy <sup>e</sup> (aMW)	Peak Demand <sup>f</sup> (MW)		Total Utility (\$/kWh)	Total Resource (\$/kWh)	Utility	Total Resource
<b>Other Programs</b>											
Residential Economizer Pilot											
2011 .....		\$ 101,713	\$ 101,713								
2012 .....		93,491	93,491								
2013 .....		74,901	74,901								
<b>Total .....</b>		<b>\$ 270,105</b>	<b>\$ 270,105</b>								
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								
<b>Total .....</b>		<b>\$ 1,381,435</b>	<b>\$ 1,381,436</b>								
Solar 4R Schools											
2009 .....		42,522	45,522								
<b>Total .....</b>		<b>\$ 42,522</b>	<b>\$ 45,522</b>								
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	0.0	15	0.019	0.049		
2009 .....	1	5,870	4,274	10,340	0.00	0.0	12	0.064	0.047		
2010 .....	1	251	251		0.00	0.0					
2011 .....	1	1,026	2,052	2,028			30	0.036	0.071		
<b>Total .....</b>	<b>544</b>	<b>\$ 84,285</b>	<b>\$ 132,961</b>	<b>234,326</b>			<b>14</b>	<b>\$ 0.036</b>	<b>\$ 0.057</b>	<b>3.06</b>	<b>1.94</b>

**Appendix 4. Historical DSM expense and performance, 2002–2013 (continued)**

Program/Year	Participants	Total Costs		Savings and Demand Reduction			Measure Life (Years)	Levelized Costs <sup>a</sup>		Program Life Benefit/Cost Ratios <sup>b</sup>	
		Utility Cost <sup>c</sup>	Resource Cost <sup>d</sup>	Annual Energy (kWh)	Average Energy <sup>e</sup> (aMW)	Peak Demand <sup>f</sup> (MW)		Total Utility (\$/kWh)	Total Resource (\$/kWh)	Utility	Total Resource
<b>Market Transformation</b>											
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	18,346,465	2.09						
<b>Total .....</b>		<b>\$ 20,239,377</b>	<b>\$ 20,239,377</b>	<b>212,971,511</b>							
Consumer Electronic Initiative											
2009.....		160,762	160,762								
<b>Total .....</b>		<b>\$ 160,762</b>	<b>\$ 160,762</b>								
<b>Annual Totals</b>											
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	107,284,190	12.23	54.5					
<b>Total Direct Program</b>		<b>\$258,566,682</b>	<b>\$447,234,012</b>	<b>1,178,860,328</b>							

**Appendix 4. Historical DSM expense and performance, 2002–2013 (continued)**

Program/Year	Participants	Total Costs		Savings and Demand Reduction			Measure Life (Years)	Levelized Costs <sup>a</sup>		Program Life Benefit/Cost Ratios <sup>b</sup>	
		Utility Cost <sup>c</sup>	Resource Cost <sup>d</sup>	Annual Energy (kWh)	Average Energy <sup>e</sup> (aMW)	Peak Demand <sup>f</sup> (MW)		Total Utility (\$/kWh)	Total Resource (\$/kWh)	Utility	Total Resource
<b>Indirect Program Expenses</b>											
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									
<b>Total .....</b>		<b>\$ 8,143,916</b>									
<b>Total Expenses</b>											
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									
<b>Total 2002–2013 .....</b>		<b>\$266,710,598</b>									

<sup>a</sup> Levelized Costs are based on financial inputs from Idaho Power's 2011 IRP and calculations include line loss adjusted energy savings.

<sup>b</sup> Program life benefit/cost ratios are provided for active programs only.

<sup>c</sup> The total utility cost is all cost incurred by Idaho Power to implement and manage a DSM program.

<sup>d</sup> The TRC is the total expenditures for a DSM program from the point of view of Idaho Power and its customers as a whole.

<sup>e</sup> Average Demand = Annual Energy/8,760 annual hours.

<sup>f</sup> 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 13% peak line losses.

<sup>1</sup> Savings are preliminary funder share estimates provided by NEEA.

## Appendix 5. 2013 DSM program activity by state jurisdiction

Program	Idaho			Oregon		
	Participants	Utility Costs	Demand Reduction/ Annual Energy Savings (MW)	Participants	Utility Costs	Demand Reduction/ Annual Energy Savings (MW)
<b>Demand Response</b>						
A/C Cool Credit .....	n/a homes	\$ 634,127	n/a	n/a homes	\$ 29,731	n/a
Irrigation Peak Rewards .....	n/a service points	2,040,696	n/a	n/a service points	31,412	n/a
FlexPeak Management.....	95 sites	2,606,431	36.7	5 sites	137,184	11.3
<b>Total .....</b>		<b>\$ 5,281,254</b>	<b>36.7</b>		<b>\$ 198,327</b>	<b>11.3</b>
<b>Energy Efficiency</b>						
<b>Residential</b>						
Ductless Heat Pump Pilot.....	211 homes	230,761	576,618	4 homes	6,814	12,524
Energy Efficient Lighting.....	1,062,235 bulbs	1,331,113	9,789,865	21,671 bulbs	25,812	205,888
Energy House Calls.....	379 homes	164,173	784,033	32 homes	35,822	53,228
ENERGY STAR® Homes Northwest.....	267 homes	348,217	365,370	0 homes	4,664	0
Heating & Cooling Efficiency Program.....	208 projects	317,973	993,706	2 projects	11,700	10,024
Home Improvement Program .....	365 projects	299,497	616,044	0 projects	0	0
Home Products Program .....	6,776 appliances/ showerheads	391,398	860,687	206 appliances/ showerheads	14,117	25,293
Oregon Residential Weatherization .....	0 homes	0	0	14 homes	9,017	14,907
Rebate Advantage.....	39 homes	58,674	249,350	3 homes	2,097	20,541
See ya later, refrigerator®.....	3,211 refrigerators/ freezers	571,304	1,399,804	96 refrigerators/freezers	17,750	42,540
Weatherization Assistance for Qualified Customers.....	245 homes/non-profits	1,336,742	657,580	9 homes/non-profits	54,935	24,156
Weatherization Solutions for Eligible Customers.....	166 homes	1,267,791	303,116	0 homes	0	0
<b>Sector Total.....</b>		<b>\$ 6,317,643</b>	<b>16,596,173</b>		<b>\$ 182,728</b>	<b>409,101</b>
<b>Commercial</b>						
Building Efficiency .....	59 projects	1,489,195	10,988,934	0 projects	17,839	0
Easy Upgrades.....	1,350 projects	3,258,427	20,778,612	42 projects	101,363	283,334
<b>Sector Total.....</b>		<b>\$ 4,747,622</b>	<b>31,767,546</b>		<b>\$ 119,202</b>	<b>283,334</b>
<b>Industrial</b>						
Custom Efficiency.....	72 projects	2,405,819	21,271,019	1 project	60,405	99,331
<b>Sector Total.....</b>		<b>\$ 2,405,819</b>	<b>21,271,019</b>		<b>\$ 60,405</b>	<b>99,331</b>
<b>Irrigation</b>						
Irrigation Efficiency Rewards .....	964 projects	2,305,121	18,010,296	31 projects	136,266	500,925
<b>Sector Total.....</b>		<b>\$ 2,305,121</b>	<b>18,010,296</b>		<b>\$ 136,266</b>	<b>500,925</b>

**Appendix 5. 2013 DSM program activity by state jurisdiction (continued)**

Program	Idaho			Oregon		
	Participants	Utility Costs	Demand Reduction/ Annual Energy Savings (kWh)	Participants	Utility Costs	Demand Reduction/ Annual Energy Savings (kWh)
<b>Market Transformation</b>						
Northwest Energy Efficiency Alliance <sup>1</sup> .....		\$ 3,147,405	17,429,142		\$ 165,653	917,323
<b>Other Programs and Activities</b>						
<b>Residential</b>						
Home Energy Audit .....		88,491			248	
Residential Economizer .....		74,901			0	
Residential Energy Efficiency Education Initiative .....		395,667			20,498	
<b>Commercial</b>						
Commercial Education Initiative .....		63,451			3,339	
Oregon Commercial Audits .....		0			5,090	
<b>Other</b>						
Energy Efficiency Direct Program Overhead .....		361,910			19,047	
<b>Total Program Direct Expense</b> .....		<b>\$ 25,189,284</b>			<b>\$ 910,803</b>	
Indirect Program Expense .....		671,020			70,266	
<b>Total Annual Savings</b> .....			<b>105,074,176</b>			<b>2,210,014</b>
<b>Total DSM Expense</b> .....		<b>\$ 25,860,308</b>			<b>\$ 981,069</b>	

<sup>8</sup> Levelized Costs are based on financial inputs from Idaho Power's 2011 IRP and calculations include line loss adjusted energy savings.

<sup>1</sup> Savings are preliminary funding share estimates provided by NEEA. Oregon is credited with 5% of annual NEEA savings.