IDAHO POWER®
An IDACORP Company

Demand-Side Management

2012 ANNUAL REPORT

March 15, 2013

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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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.

AMI—Advanced Metering Infrastructure

ARRA—*American Reinvestment and Recovery Act of 2008*

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

BOMA—Building Owners and Managers Association

BOP—Builder Option Package

BPA—Bonneville Power Administration

CAES—Center for Advanced Energy Studies

CAP—Community Action Partnership

CAPAI—Community Action Partnership Association of Idaho, Inc.

CAIS—Certified Agricultural Irrigation Specialist

CBSA—Commercial Building Stock Assessment

CEERI—CAES Energy Efficiency Research Initiative

CEI—Continuous Energy Improvement

CEL—Cost-Effective Limit

CEU—Continuing Education Unit

CFL—Compact Fluorescent Lamp/Light

CHQ—Corporate Headquarters (Idaho Power)

CID—Certified Irrigation Designer

CIS—Customer Information System

COP—Coefficient of Performance

CR—Customer Representative (field staff)

CR&EE—Customer Research and Energy Efficiency Department

CSR—Customer Service Representative (call center)

DHP—Ductless Heat Pump

DOE—Department of Energy

DSM—Demand-Side Management

DSR—Demand-Side Resource

EA4—EA4 Energy Audit Program

EA5—EA5 Energy Audit Program

EEAG—Energy Efficiency Advisory Group

EECBG—Energy Efficiency Conservation Block Grant

EISA—*Energy Independence and Security Act of 2007*

EM&V—Evaluation, Measurement, and Verification

EnerNOC Solutions—EnerNOC Utility Solutions Consulting

ETO—Energy Trust of Oregon

EPA—Environmental Protection Agency

EUAT—Energy-Use Advisory Tool

FCA—Fixed-Cost Adjustment

ft^2—Square Feet

GMPG—Green Motors Practice Group

GWh—Gigawatt-hour

H&CE—Heating & Cooling Efficiency Program

HEM, LLC—Home Energy Management, LLC

hp—Horsepower

HPWH—Heat Pump Water Heater

HPS—Home Performance Specialist

HSPF—Heating Seasonal Performance Factor

HVAC—Heating, Ventilation, and Air Conditioning

IDL—Integrated Design Lab (in Boise)

IECC—International Energy Conservation Code

INL—Idaho National Laboratory

IOER—Idaho Office of Energy Resources

IP—Internet Protocol

IPMVP—International Performance Measurement and Verification Protocol

IPUC—Idaho Public Utilities Commission

IRP—Integrated Resource Plan

IRPAC—Integrated Resource Plan Advisory Council

IRS—Internal Revenue Service

iSTEM—Idaho Science, Technology, Engineering and Mathematics

IT—Information Technology

JACO—JACO Environmental, Inc.

kW—Kilowatt

kWh—Kilowatt-hour

LED—Light-Emitting Diode

LEEF—Local Energy Efficiency Funds

LIHEAP—Low Income Home Energy Assistance Program

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

NEEM—Northwest Energy Efficient Manufactured

NEEA—Northwest Energy Efficiency Alliance

NEMA—National Electrical Manufacturers Association

NPCC—Northwest Power and Conservation Council

NWRRC—Northwest Regional Retail Collaborative

OPUC—Public Utility Commission of Oregon

OSV—On-Site Verification

PCA—Power Cost Adjustment

PCT—Participant Cost Test

PECI—Portland Energy Conservation, Inc.

PLC—Power-Line Carrier

PSA—Public-Service Announcement

PTCS—Performance Tested Comfort System

QA—Quality Assurance

QC—Quality Control

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*

RTF—Regional Technical Forum

SCCT—Simple-Cycle Combustion Turbine

SCO—State-Certifying Organization

SEE—Students for Energy Efficiency

SEER—Seasonal Energy Efficiency Ratio

SEM—Strategic Energy Management

SGIS—Smart Grid Investment Grant

SIR—Savings-to-Investment Ratio

SRVBCA—Snake River Valley Building Contractors Association

T-5HO—T-5 High Output

TRC—Total Resource Cost

TVP—Time-Variant Pricing

VFD—Variable-Frequency Drive

UC—Utility Cost

UES—Unit Energy Savings

US—United States

USA—Utility Service Agreement

W—Watt

WAQC—Weatherization Assistance for Qualified Customers

EXECUTIVE SUMMARY

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

In 2012, Idaho Power focused energy efficiency activities on program analysis, energy savings, demand reductions, and improvements and expansion of its current programs. Idaho Power initiated several impact evaluations conducted by third-party consultants. The company also sponsored numerous activities under its customer education initiatives to improve customers' energy intelligence and to educate them about the company's energy efficiency programs. To identify additional energy-savings measures, Idaho Power conducted a new energy efficiency potential study in conjunction with its *2013 Integrated Resource Plan* (IRP). Also in 2012, the See ya later, refrigerator® program reached a milestone when it picked up its 10,000th unit.

Total expenditures from all funding sources on demand-side management (DSM)-related activities increased about 7 percent, from almost $46.3 million in 2011 to $49.3 million in 2012. This funding now comes from several sources outside the Idaho and Oregon Energy Efficiency Riders. Idaho incentives from the company's demand response programs are recovered through the annual power cost adjustment (PCA), and Idaho incentives for its industrial energy efficiency program, Custom Efficiency, are capitalized similar to a supply-side resource.

Although on target for savings achieved for the IRP, Idaho Power's annual energy savings from its energy efficiency activities slightly decreased in 2012. Reduced energy savings in 2012 were caused partially by Idaho Power's and the region's increased evaluation, measurement, and verification (EM&V) activities, which generally reduce savings estimates. The amount of energy saved was enough to power over 13,000 average homes served by Idaho Power. From Idaho Power's energy efficiency programs alone (excluding Northwest Energy Efficiency Alliance [NEEA] savings), the savings decreased 7 percent, from 163,315 megawatt-hours (MWh) in 2011 to 152,486 MWh in 2012. Annual energy savings for 2011, including the revised NEEA savings, were 183,862 MWh. In 2012, these savings decreased slightly to 170,228 MWh.

In 2012, Idaho Power celebrated 10 years of energy efficiency and demand response activity funded under the Idaho Energy Efficiency Rider (Idaho Rider). In those 10 years, the company realized a cumulative annual savings of over 1 million MWh savings. This is enough energy to power a city of 85,000 average residences. The demand-reduction capacity for Idaho Power's demand response programs in 2012 was over 438 megawatts (MW). This represents over 13 percent of Idaho Power's new record system peak of 3,245 MW set in 2012.

The *Demand-Side Management 2012 Annual Report* provides a review of the company's DSM activities and finances throughout 2012 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 2012 Annual Report* provides a review of the financial and operational performance of Idaho Power's demand-side management (DSM) activities and initiatives for 2012. In 2012, Idaho Power offered energy efficiency and demand response programs to all customer sectors and 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 all prudent, cost-effective energy efficiency savings and provide an optimal amount of demand reduction from its demand response programs as determined through the Integrated Resource Plan (IRP) planning process. Idaho Power 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.

Customer participation in Idaho Power's energy efficiency and demand response programs continues to remain strong, provide substantial energy savings, and increase demand-reduction capacity. The energy savings exclusively from Idaho Power's energy efficiency programs in 2012 were 152,486 megawatt-hours (MWh). In 2012, the amount of energy saved from its programs was enough to power more than 13,000 average homes served by Idaho Power for one year.

Demand reduction available from the demand response programs increased in 2012. Combined, the Irrigation Peak Rewards, FlexPeak Management, and A/C Cool Credit programs resulted in an estimated summer peak reduction capacity of 438 megawatts (MW).

Idaho Power uses the same report structure each year in a continuing effort 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 all of the standard cost-effectiveness tests for Idaho Power programs and includes a table that reports expenses by funding source and cost category (Table 2). In 2012, the company continued its commitment to third-party evaluation activities. Included in *Supplement 2: Evaluation* are copies of all of Idaho Power's 2012 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 2012, all Idaho Power energy efficiency programs were cost effective, except the company's weatherization programs for income-qualified customers and 52 individual measures in various programs. The majority of these measures have been discontinued, and the remaining measures will be reviewed in 2013.

The cost-effectiveness analysis of Idaho Power's demand response programs showed all three demand response programs to be cost-effective over the life of each program. This analysis uses a program life of a 20-year planning period for the A/C Cool Credit and Irrigation Peak Rewards programs and a 10-year planning period for the FlexPeak Management program. For this report, based on the future uncertainty of these programs and because the IPUC has not issued an order in IPUC Case No. IPC-E-12-29, Idaho Power used the assumptions from the information known prior to the filing to temporarily suspend the A/C Cool Credit and Irrigation Peak Rewards programs. The cost-effectiveness analysis for the FlexPeak Management program is still based on a 10-year life. The cost-effectiveness models were updated to include 2012 expenses and demand reduction, as well as 2013 budgeted expenses and forecasted performance.

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 in 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. All of 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 3 show the demand-reduction capacity, historic energy savings, and DSM expenses.

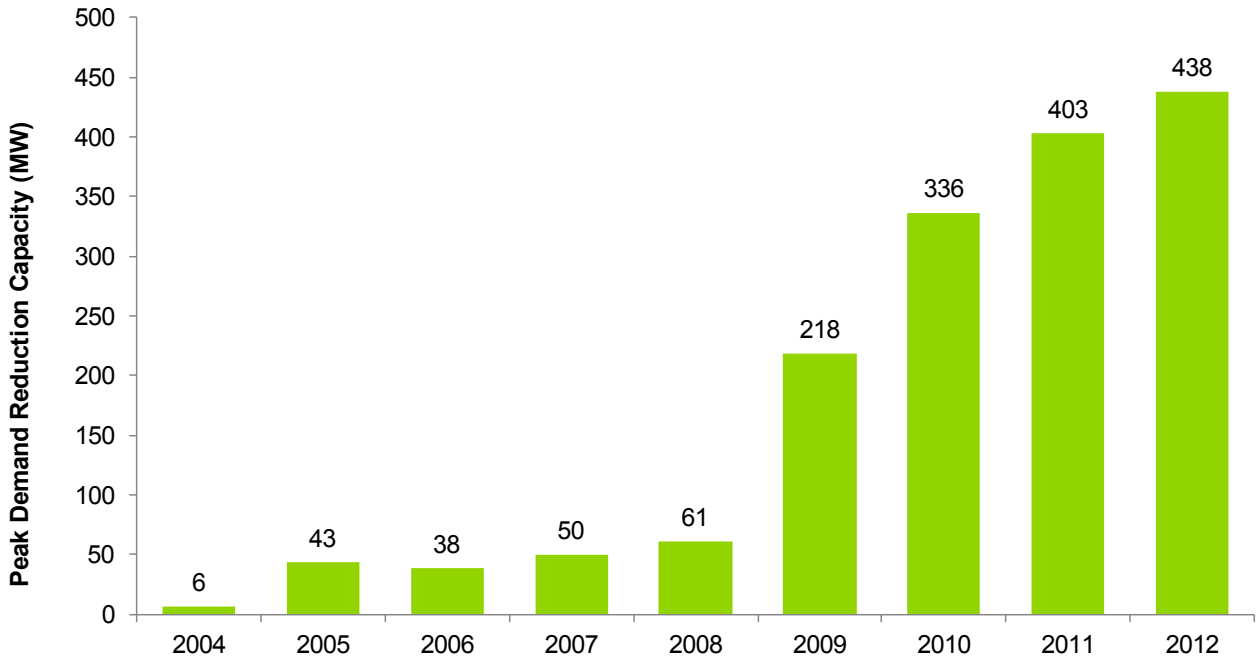

Figure 1. Peak demand-reduction capacity 2004–2012 (MW)

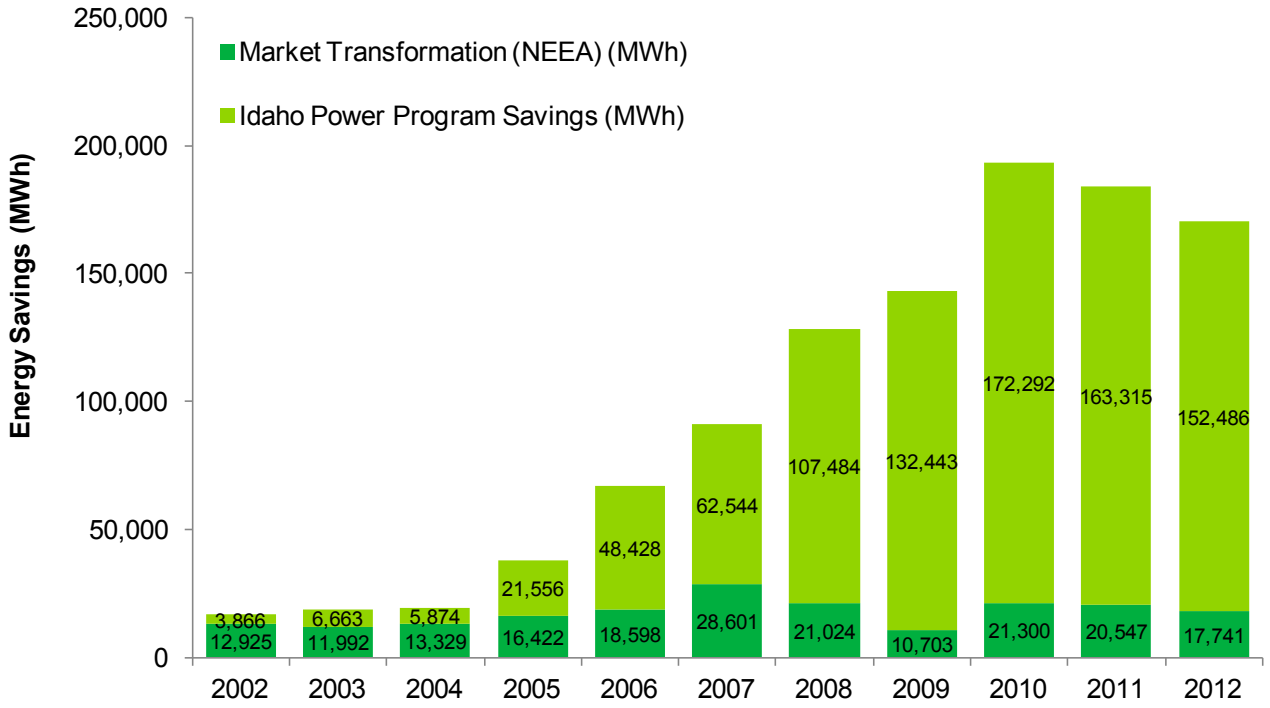

Figure 2. Annual energy savings 2002–2012 (MWh)

Note: 2012 market-transformation savings (NEEA) are preliminary.

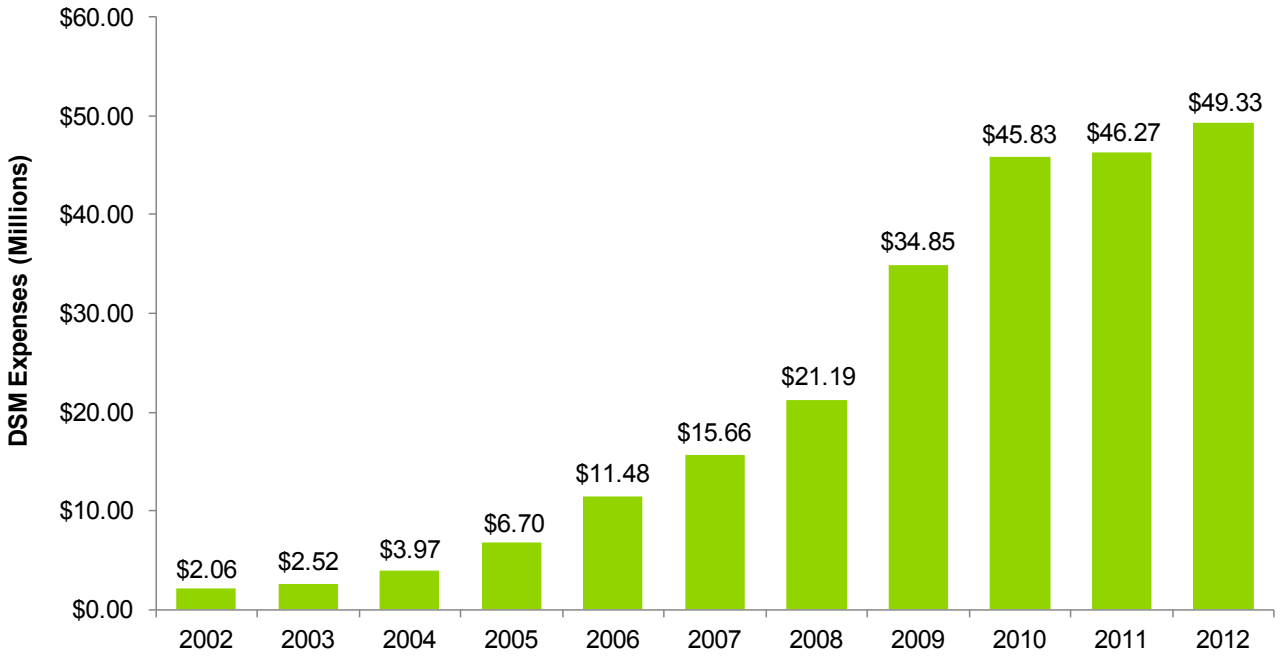

Figure 3. DSM expense history 2002–2012 from all sources (millions of dollars)

Demand Response Programs

The goal of demand response at Idaho Power is to minimize or delay the need to build new supply-side resources. The company estimates future capacity shortfalls through the IRP planning process, then plans programs to mitigate these shortfalls. Demand response programs are measured by the amount of demand reduction, in MW, available to the company during system peak periods. In 2012, Idaho Power operated three demand response programs: the A/C Cool Credit program for residential customers, the FlexPeak Management program for commercial/industrial customers, and the Irrigation Peak Rewards program for irrigation customers.

Research efforts in 2012 included a continued investigation into the need for demand response, as well as how to measure its value. Idaho Power also continued to examine and refine program dispatch criteria. Idaho Power contracted with Portland Energy Conservation, Inc. (PECI), to conduct a research project for the A/C Cool Credit program to optimize the use of this program by more accurately estimating the available demand reduction in advance of dispatching this program. In 2012, the company, based on PECI's research plan, used the A/C Cool Credit program 13 times, with a goal of capturing various cycling strategies at various temperature bins, allowing PECI to create a regression model to estimate demand reduction.

The FlexPeak Management program was used four times during summer 2012. These events did not incur any marginal costs for the company and were successful in keeping the participants familiar and engaged with the program while verifying the accuracy of EnerNOC, Inc.'s, weekly nominations. Although Idaho experienced fairly extreme weather conditions in summer 2012, there was no need to dispatch the Irrigation Peak Rewards program, which was not economical to operate considering the variable payment necessary to use this program. Idaho Power hit a new all-time system peak of 3,245 MW at 4:00 p.m. on July 12, 2012. Both the A/C Cool Credit and FlexPeak Management programs were dispatched at 4:00 p.m. on this day, successfully preventing the system peak from increasing after 4:00 p.m., as it would have otherwise done.

Idaho Power's IRP determines the company's forecasted need for energy resources while balancing reliability, cost, environmental concerns, and efficiency. The plan is developed with the assistance of the company's customers and other stakeholders and is reviewed and updated every two years. In 2012, Idaho Power began the analytical portion of the 2013 IRP and commenced its regular meetings with the Integrated Resource Plan Advisory Council (IRPAC).

In fall 2012, the company's IRP analysis demonstrated there were no capacity deficits in the near term. In past years, the IRP has forecasted a need for additional resources at times of peak electricity use. The Irrigation Peak Rewards, A/C Cool Credit, and FlexPeak Management programs have been available to meet that need. However, the most recent analysis from the 2013 IRP indicates no peak-hour shortages until 2016. This is primarily due to a slower-than-expected economic recovery, causing slower customer growth than previously forecasted, as well as two previously anticipated large-load customers that did not materialize. Based on the results of this analysis, on December 21, 2012, Idaho Power filed Case No. IPC-E-12-29 with the IPUC, requesting a temporary suspension of the A/C Cool Credit and Irrigation Peak Rewards programs. The FlexPeak Management program will continue to be available in 2013. This temporary suspension will allow the company to work with stakeholders to identify the best long-term solution for its demand response programs.

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 improves their energy efficiency. Idaho Power achieves market-transformation savings primarily through its participation in the Northwest Energy Efficiency Alliance (NEEA).

Other Programs and Activities

Other programs and activities represent a range of small projects that are typically research, development, and education oriented. This category includes the Residential Energy Efficiency Education Initiative, Easy Savings Program, Commercial Educational Initiative, Local Energy Efficiency Funds (LEEF), Residential Economizer Project Study, and Boise City Home Audit Project. These programs enable Idaho Power to offer support for projects and educational opportunities not normally covered under existing programs.

Table 1 provides a list of the DSM programs and their respective sectors, operational category, the state each was available in 2012, and associated energy savings.

Table 1. 2012 DSM, sectors, programs, operational type, and energy savings/demand reduction

Program by Sector	Operational Type	State	Savings
Residential			
A/C Cool Credit	Demand Response	ID/OR	44.9 MW
Ductless Heat Pump Pilot	Energy Efficiency	ID/OR	445 MWh
Energy Efficient Lighting	Energy Efficiency	ID/OR	16,709 MWh
Energy House Calls	Energy Efficiency	ID/OR	1,192 MWh
ENERGY STAR® Homes Northwest	Energy Efficiency	ID/OR	537 MWh
Heating & Cooling Efficiency Program	Energy Efficiency	ID/OR	689 MWh
Home Improvement Program	Energy Efficiency	ID	457 MWh
Home Products Program	Energy Efficiency	ID/OR	887 MWh
Oregon Residential Weatherization	Energy Efficiency	OR	12 MWh
Rebate Advantage	Energy Efficiency	ID/OR	187 MWh
Residential Energy Efficiency Education Initiative	Other Programs and Activities	ID/OR	n/a
See ya later, refrigerator®	Energy Efficiency	ID/OR	1,576 MWh
Weatherization Assistance for Qualified Customers	Energy Efficiency	ID/OR	648 MWh
Weatherization Solutions for Eligible Customers	Energy Efficiency	ID	258 MWh
Commercial/Industrial			
Building Efficiency	Energy Efficiency	ID/OR	20,450 MWh
Commercial Education Initiative	Other Programs and Activities	ID/OR	n/a
Easy Upgrades	Energy Efficiency	ID/OR	41,569 MWh
FlexPeak Management	Demand Response	ID/OR	52.8 MW
Oregon Commercial Audits	Energy Efficiency	OR	n/a
Custom Efficiency	Energy Efficiency	ID/OR	54,253 MWh
Irrigation			
Irrigation Efficiency Rewards	Energy Efficiency	ID/OR	12,617 MWh
Irrigation Peak Rewards	Demand Response	ID/OR	339.9 MW
All Sectors			
Northwest Energy Efficiency Alliance	Market Transformation	ID/OR	17,741 MWh

Program Performance

In 2012, annual energy savings slightly decreased compared to 2011. The saving difference varied by sector. Energy savings for the residential sector decreased by 24 percent to 23,597 MWh. The commercial sector energy savings increased by 23 percent to 62,019 MWh, and the industrial sector energy savings decreased by 20 percent to 54,253 MWh. Energy savings for the irrigation sector decreased by 10 percent to 12,617 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 making some programs available only for electrically heated homes. Some of the energy-savings reduction in the industrial sector and the increase in the commercial sector were due to programmatic changes. The overall reduced energy savings in 2012 may be caused, in part, by Idaho Power's and the region's increased evaluation, measurement, and verification (EM&V) activities. Additional energy savings continue to be realized through market-transformation partnership activities with NEEA.

Customer participation remained strong in most of the existing programs during the year. The number of projects completed under the Building Efficiency and Easy Upgrades programs increased by 33 percent

and 6 percent, respectively. Participation in Rebate Advantage increased by 40 percent, from 25 homes in 2011 to 35 homes in 2012. The number of homes completed under the ENERGY STAR® Homes Northwest program increase by 33 percent. The projects completed under the Irrigation Efficiency Rewards program increased slightly by 3 percent, from 880 projects in 2011 to 908 projects in 2012.

A few programs were big contributors to overall energy savings. Although the Custom Efficiency program had reduced savings compared to 2011, the program accounted for 32 percent of Idaho Power's energy savings from programs, resulting in an estimated 54,253 MWh of savings. The Easy Upgrades program in the commercial sector provided 24 percent, or 41,569 MWh, of estimated energy savings. In the residential sector, the Energy Efficient Lighting program saved 16,709 MWh, accounting for 10 percent of overall energy savings.

Table 2 shows the 2012 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 2012 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. 2012 program sector summary and energy usage/savings/demand reduction

	Energy Efficiency Program Impacts[a]				Idaho Power System Sales		
	Program Expenses	Energy Savings (kWh)	Average Energy (aMW)	Peak Load Reduction (MW)[b]	Sector Total (MWh)	Percentage of Energy Usage	Number of Customers
Residential	$ 6,337,777	23,597,363	2.7	44.9	5,052,302	35.83%	416,020
Commercial	6,954,795	62,018,709	7.1	7.1	3,869,314	27.44%	65,920
Industrial	7,092,581	54,253,106	6.2	60.4	3,131,650	22.21%	116
Irrigation	2,373,201	12,617,164	1.4	343.0	2,048,435	14.53%	19,045
Market Transformation	3,379,756	17,741,430	2.0	n/a	n/a	n/a	n/a
Other Programs and Activities	692,062	n/a	n/a	n/a	n/a	n/a	n/a
Total Direct Program Expenses	**$26,830,172**	**170,227,773**	**19.0**	**455.0**	**14,101,701**	**100.00%**	**501,101**

[a] Energy, average energy, and expense data have been rounded to the nearest whole unit, which may result in minor rounding differences.
[b] This includes peak load reduction from both demand response and energy efficiency programs.

2012 Activities

In 2012, Idaho Power continued to expand its DSM programs to increase participation and energy savings. Many activities in 2012 revolved around evaluation and research to make DSM programs more effective and the savings gained from these programs more reliable. The company also completed a third-party energy efficiency potential study and a non-participant survey for the residential, commercial, and irrigation sectors.

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). This project should be complete with migration to the new CIS by mid-2013. This installation has and will affect some of the company's DSM program activities because any changes related to the company's billing system cannot occur until the system is implemented. Information technology (IT) resources for other projects have also been dramatically constrained during the conversion.

Idaho Power collaborated with the City of Boise to finalize the Boise City Home Audit Project. Additionally, the company continued to fund and collaborate with the Integrated Design Lab (in Boise) (IDL) and participate with NEEA's Ductless Heat Pump (DHP) Pilot.

During 2012, 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 in several NEEA 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 2012, 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 participated in numerous sub-committees.

On March 15, 2012, Idaho Power filed Case No. IPC-E-12-15, a request for the IPUC to designate Idaho Power's expenditure of $35,623,321 in Idaho Energy Efficiency Rider (Idaho Rider) funds and $7,018,385 in Custom Efficiency incentive expenses as prudently incurred expenses in 2012. Through the discovery process, Idaho Power found that $345 had been inadvertently charged to the Idaho Rider that should have been charged to the Oregon Energy Efficiency Rider (Oregon Rider). The company subsequently modified its request for prudency to $35,622,976 in Idaho Rider expenses, for a total request of $42,641,361. The company included copies of the *Demand-Side Management 2011 Annual Report* along with *Supplement 1: Cost-Effectiveness* and *Supplement 2: Evaluation* in its filing. On October 22, 2012, the IPUC issued Order No. 32667. In this order, the IPUC found that the company had prudently incurred $41,942,123.50, including $34,923,738.50 in Rider expenses and $7,018,385 in Custom Efficiency incentive expenses in 2011. The commission declined to decide the reasonableness of $89,601 of Idaho Power labor-related expense increases for Rider funded employees and denied Rider funding for $82,855.50 in A/C Cool Credit incentive payments to customers. On November 13, 2012, Idaho Power filed a petition for reconsideration in Case No. IPC-E-12-15. In this filing and subsequent filings, the company asked for reconsideration on an accounting adjustment of $526,781 and $89,601 in labor-related expenses. On December 11, 2012, the commission issued Order No. 32690, in which they found it reasonable to grant the company reconsideration of the accounting-related adjustment but again declined to decide the reasonableness of the company's labor-related expense increase until the company provided evidence from which the commission might better assess the reasonableness of those expenses. As a result of these orders, the company has credited the Idaho Rider account 254201 by $82,855.50 and placed $89,601 in reserve account 253000 until prudency can be determined. These prudency filings and Idaho Power's DSM activities are designed to comply with the agreed 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 funded by the Rider. 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 three times in 2012: February 22, July 19, and November 6. Additionally, a webinar was held on December 5 and a conference call was held on December 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 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 2012 EEAG meetings, the webinar on December 5, and the December 14 conference call are included in *Supplement 2: Evaluation*.

During the July 19 EEAG meeting, EEAG members and Idaho Power staff engaged in an interactive session to review the structure and content of EEAG meetings. A summary of this discussion and suggestions was provided in a memo dated August 3, 2012, and sent to all members. In subsequent meetings, and after review of the original order by the IPUC that created EEAG, the members affirmed their desire to meet quarterly for all-day, in-person sessions to review DSM activities. Additional teleconferences and/or webinars may supplement the quarterly meetings. The members also requested that time be allocated for the audience to ask questions throughout the presentations and discussions and that guest speakers be used when appropriate to the subject matter.
Finally, members will be given an opportunity to suggest agenda items and will receive presentation materials one week in advance of the meeting. The company has implemented many of the EEAG members' recommendations to increase the effectiveness of EEAG meetings. Additionally, Idaho Power continues to address recommendations from the IPUC received in Case No. IPC-E-12-15 and confirmed by Order No. 32667. A copy of the revised memo can be found in *Supplement 2: Evaluation*.

At the November 6 EEAG meeting, Idaho Power presented and discussed four residential initiatives: Home Energy Audits, Shade Tree Pilot, Student Energy Efficiency Kits, and Solar Thermal Hot Water measure. All initiatives except the Solar Thermal Hot Water measure received positive feedback and support from EEAG. Idaho Power plans on launching the following three initiatives in 2013.

The new Home Energy Audits program is based, in part, on the Boise City Home Audit Project that Idaho Power and the City of Boise undertook previously using *American Recovery and Reinvestment Act of 2008* (ARRA) funding. This new program will allow all-electric residential customers to select a home performance specialist (HPS) from a list of preferred providers and have the HPS perform an audit of their home. The audit will include a blower door test, a visual inspection of the crawl space and attic, and a collection of data regarding the home and its energy use. Homeowners will receive a report with specific recommendations for their home and information on programs that may help with the cost of energy efficiency improvements. Preparations are underway for a program launch during third quarter 2013.

Idaho Power, along with local stakeholders, is exploring a shade-tree program for the Treasure Valley. Using results from a state-sponsored urban tree-canopy study and online planting resources developed by the Arbor Day Foundation, the Shade Tree Pilot will encourage strategic planting of trees to reduce residential energy use. Properly planted shade trees save energy in the summer by reducing cooling costs. Trees provide measureable economic and environmental benefits, including enhanced air quality, storm water quality, and property values. Utility shade-tree programs throughout the country report energy savings, high participant satisfaction, and enhanced public images related to environmental stewardship. The Shade Tree Pilot is being developed for implementation in fall 2013, and results will be reviewed for full program development in 2014.

Idaho Power plans to build on the success of its previous Students for Energy Efficiency (SEE) Program (2009–2011) by implementing a new Student Energy Efficiency Kits program. The new

program will target elementary school students in grades four through six. The project plan includes the delivery of 2,500 kits to students attending schools in Idaho Power's service area during spring semester 2013 and another 2,500 kits in the fall. Participating classrooms will be identified by Idaho Power's community education representatives. Once enrolled, one of two vendors selected through a competitive request for proposal (RFP) process will facilitate the delivery of the curriculum, take-home energy kits, and feedback materials directly to the school. Spring kit delivery will begin on approximately April 1, 2013, and reporting for the spring enrollment will be complete in July 2013. Fall kit delivery will begin in September 2013, with reporting complete in early 2014. At the end of 2013, Idaho Power intends to gather feedback from all stakeholders to capture lessons learned and determine whether or not to continue the program in 2014.

In addition to EEAG, Idaho Power solicits further customer input through 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. A description of this overall DSM business model was provided in Case No. IPC-E-10-27, which was filed with the IPUC on October 22, 2010.

Since 2002, Idaho Power has recovered most DSM program costs through the Rider, with the intended result of providing a more timely recovery of DSM costs. To address the removal of financial disincentives, Idaho Power has tested the effects of a fixed-cost adjustment (FCA) mechanism in a five-year pilot initiative. In 2011, the FCA pilot completed year five and the company filed Case No. IPC-E-11-19 with the IPUC requesting to convert the FCA to an ongoing and permanent rate schedule. On March 30, 2012, the IPUC approved the FCA mechanism as a permanent program for the residential and small general-service customers. The IPUC also directed Idaho Power to file a proposal within six months to adjust the FCA to address the capture of changes in load not related to energy efficiency programs. On September 28, 2012, the company filed its Compliance Filing in response to the IPUC's directive. On January 31, 2013, the IPUC issued Final Order No. 32731, directing that the FCA mechanism continue unchanged.

Idaho Power is working toward the third component of the overall DSM regulatory model. As part of Case No. IPC-E-10-27, the IPUC issued Order No. 32245 on May 17, 2011, allowing Idaho Power to account for customer incentives paid through the Custom Efficiency program as a regulatory asset beginning on January 1, 2011. On October 31, 2012, the company filed Case No. IPC-E-12-24, requesting the authority to include 2011 Custom Efficiency program incentive payments in rates and to establish a mechanism to annually update rates for future payments. This mechanism would provide Idaho Power an opportunity to earn an authorized rate of return on its investments in demand-side resources (DSR). As of December 31, 2012, proceedings relating to this case are ongoing.

DSM Expenditures

Funding for DSM programs in 2012 came from several sources. The Rider funds are collected directly from customers on their monthly bills. For 2012, the Idaho Rider was 4 percent of base-rate revenues. The 2012 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. Additionally beginning in 2012, Idaho related demand response program incentives were paid through the power cost adjustment (PCA) mechanism. Other energy efficiency and demand response-related expenses not funded through the Rider, including costs for administration and overhead, are included as part of Idaho Power's ongoing operation and maintenance costs.

Total DSM expenses funded from all sources were $49.3 million in 2012. At the beginning of 2012, the Idaho Rider negative balance was about $5.3 million, and by January 1, 2013, the positive balance was $4 million. This reduction in the Idaho Rider negative balance and accrual of a positive balance was accomplished through the filings described in the Regulatory Initiatives section. At the beginning of the year, the Oregon Rider negative balance was approximately $3.5 million, and by year-end, the negative balance was $3.9 million.

Table 3 shows the total expenditures funded by the Idaho Rider ($25,739,189); the Oregon Rider ($1,382,330); and Idaho Power base rates ($22,205,341). The Idaho Power base rates category includes Idaho Custom Efficiency program incentives, Idaho Power demand response incentives, and operation and maintenance costs, separated by expense category.

Table 3. 2012 funding source and energy impact

Funding Source	Expenses	MWh Savings
Idaho Rider	$ 25,739,188	164,781
Oregon Rider	1,382,330	4,771
Idaho Power Base Rates	22,205,341	676
Total	**$ 49,326,859**	**170,228**

Table 4 and Figure 4 indicate 2012 DSM program expenditures by category. The expenses in the Materials & Equipment category are primarily for A/C Cool Credit ($3,300,000). The Other Expense category includes marketing ($397,800), program evaluation ($214,000), and program training ($115,800). The Purchased Services category includes payments made to NEEA and third-party contractors who help deliver Idaho Power's programs, such as M2M Communication Corp. for Irrigation Peak Rewards; EnerNOC for FlexPeak Management; JACO Environmental, Inc. (JACO), for See ya later, refrigerator®; 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. 2012 DSM program expenditures by category

	Total	% of Total
Incentive Expense	$ 30,848,941	62%
Labor/Administrative Expense	3,490,392	7%
Materials & Equipment	3,308,304	7%
Other Expense	532,733	1%
Purchased Services	11,146,489	23%
Total 2012 DSM Program Expenditures by Category	**$ 49,326,859**	**100%**

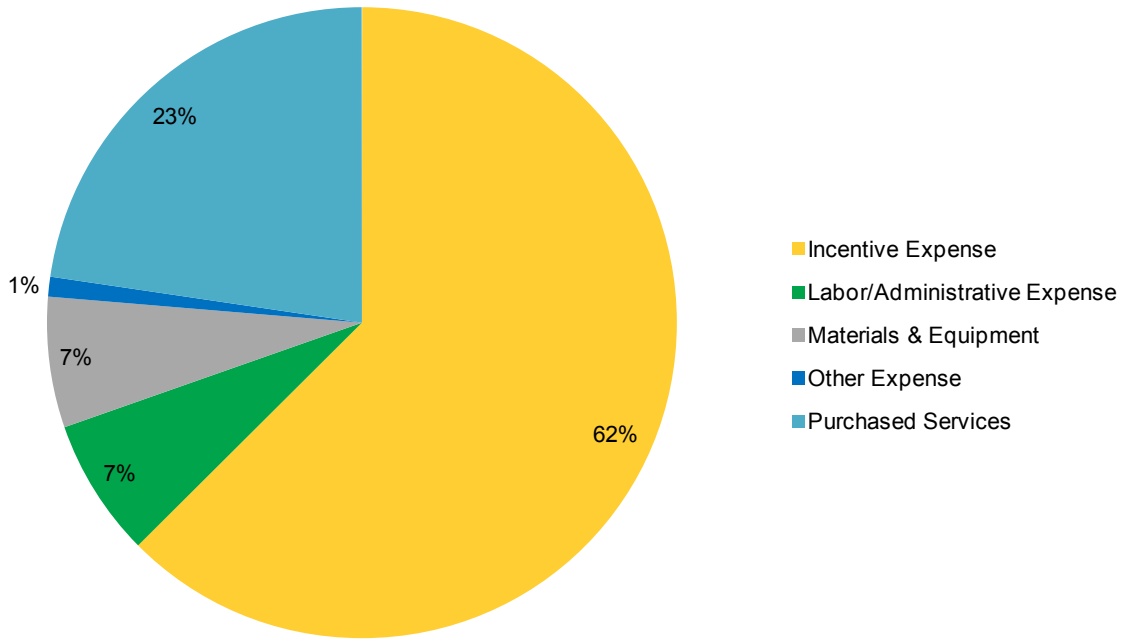

Figure 4. 2012 DSM program expenditures by category

Table 5 and Figure 5 describe the amount and percentage of incentives paid by segment and sector. There are two incentive segments—demand response (DR) and Energy Efficiency (EE)—and three sectors—Residential, Commercial/Industrial, and Irrigation. The incentives listed are funded by the Idaho Rider, Oregon Rider, the Custom Efficiency regulatory asset, the 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. 2012 DSM program incentives by segment and sector

	Sector Total	% of Total
DR—Residential	$ 759,544	2%
DR—Commercial/Industrial	2,905,642	9%
DR—Irrigation	11,011,193	36%
EE—Irrigation	2,043,829	7%
EE—Residential	2,143,235	7%
EE—Commercial/Industrial	11,985,498	39%
Total Incentive Expense	**$ 30,848,941**	**100%**

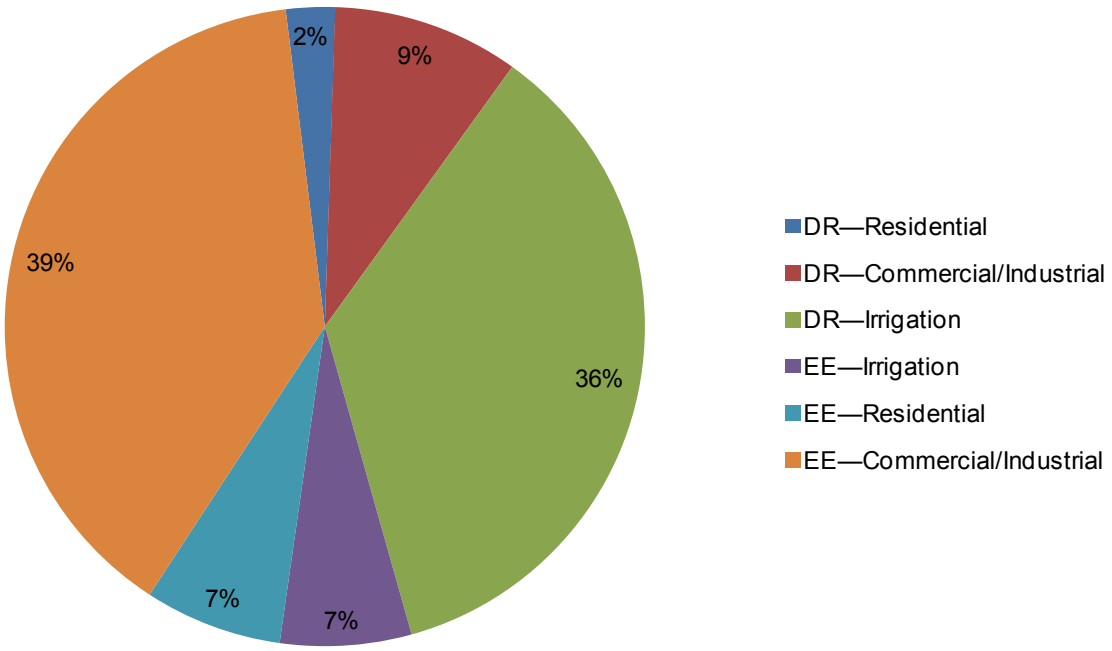

Figure 5. 2012 DSM program incentives by segment and sector

Marketing

With technology rapidly advancing, marketing choices are no longer as simple as placing a print advertisement or distributing a press release. Now marketing is a mosaic that also includes social media, multimedia, community events, online advertising, and owned media.

To meet the demands, a new marketing specialist was added to the energy efficiency team at Idaho Power in April 2012. Adding this position allowed for new marketing ideas and a more balanced workload for two specialists.

Idaho Power marketing staff continually research academic and industry best practices to stay current on marketing theory and tactics. Successful marketing approaches from inside and outside the utility industry are studied and evaluated to determine if they are appropriate for marketing Idaho Power's energy efficiency programs.

Below is a high-level summary of new marketing communication tactics developed and implemented during 2012.

To increase Idaho Power's communication with small and medium commercial customers, the company launched the first biannual *Energy at Work* commercial newsletter. The goal of this newsletter is to provide pertinent and useful information to a customer segment with limited time. The summer 2012 edition is available to download on Idaho Power's business energy efficiency web page. Topics in this edition include the following:

- Energy Efficiency: Good for Business and Your Health
- T-12 Lamps are So Yesterday

- 2011 Commercial Energy Efficiency Program Recap
- Planning for a Successful Energy Efficiency Project
- Four Steps to An Energy-Saving Business Strategy

A video about the DHP Pilot was produced in the first half of 2012 using customer testimonials to explain why people choose DHPs and the benefits for electrically-heated homes. This video is available on Idaho Power's DHP Pilot's web page http://www.idahopower.com/EnergyEfficiency/Residential/Programs/ductlessHeatPumps/default.cfm. The video also was uploaded to YouTube and received 5,200 views in approximately one year.

Planning for an Easy Upgrades program online advertising campaign began in the fall and winter of 2012 to increase participation in the program. An animated advertisement was developed to target commercial businesses, with a planned launch date of January 2, 2013. The advertisement targets specific professions and industries within Idaho Power's service area. Idaho Power staff will review weekly reports to monitor click-through rates (the number of times a user clicks on the advertisement, taking them to a corresponding web page) and make adjustments as needed over the course of the three-month campaign.

Two movie theater advertisements, one for the Home Improvement Program and one for both ducted and DHPs, were produced using in-house resources and shown at Regal Cinema theaters in Nampa and Boise. The advertisements ran for eight weeks during June and July 2012. The number of individual advertisements shown totaled 12,544, and the number of total projected impressions was 695,376; total projected impressions are the anticipated number of times an advertisement will be displayed or viewed, giving customers a certain number of potential exposures to a message or an "opportunity-to-see." The more times a message is viewed, particularly within a shorter time frame, the more likely customers will take action. To maximize the usability of the two movie theater advertisements, both advertisements were uploaded to YouTube and the Home Improvement Program advertisement was posted on the program's Idaho Power web page.

At the November 6 EEAG meeting, an Idaho Power Corporate Communications department representative solicited information from EEAG regarding changes to the company's monthly customer newsletter, *Connections*. Discussions covered reducing the number of energy efficiency bill inserts and instead creating energy efficiency-focused *Connections* editions. EEAG members offered suggestions and support for adding more energy efficiency information in the newsletter. In July 2013, *Connections* will specifically focus on the company's energy efficiency programs.

In January 2013, Idaho Power produced a print advertisement campaign featuring a New Year's theme and a number of Idaho Power's energy efficiency programs. The advertisement ran for two weeks in daily and weekly newspapers throughout Idaho Power's service area.

Facebook and Yahoo! behavioral-targeted advertisements are being used to expand Idaho Power's online presence. Idaho Power staff track these online marketing campaigns through reports that show the number of impressions (number of times a person is exposed to a message), click-through rates, and reach (geographic dispersion of the message). These reports will help inform subsequent marketing decisions.

The following additional metrics are used to determine if marketing tactics are successful.

- Trade ally/contractor feedback
- Customer comments via the Idaho Power call center, email, and customer representatives (CR)
- Qualitative and quantitative survey results
- Customer inquiries and customer awareness of programs
- Web Trends data reports

Program Evaluation

Evaluation of the company's DSM programs is integral in providing accurate and transparent program savings results and is a key component in Idaho Power's commitment to continuous program improvement.

Most program evaluations and primary research is contracted through third-party entities by means of a competitive bid process managed by Idaho Power's Procurement department. When appropriate, an internal analysis is conducted and managed by Idaho Power's Energy Efficiency Research and Analysis team.

In 2012, Idaho Power completed third-party impact evaluations on the following six programs: Heating & Cooling Efficiency (H&CE) Program; See ya later, refrigerator®; WAQC; Weatherization Solutions for Eligible Customers; Building Efficiency; and Easy Upgrades. Additionally, a third-party process evaluation of the A/C Cool Credit program and a 20-year all-sector energy efficiency potential study were completed.

Two third-party primary research projects were conducted in 2012. The A/C Cool Credit research project delivered a predictive model for future use in determining the value of curtailments at various temperatures and cycling strategies. The Irrigation Efficiency Rewards research project determined the estimated unit energy savings for measures deemed out of compliance by the RTF.

Internal program impact reports were completed by Customer Relations and Energy Efficiency staff for the FlexPeak Management and Irrigation Peak Rewards programs. The *Weatherization Assistance for Qualified Customers 2011 Annual Report* was completed in 2012 and filed with the IPUC on April 1, 2012.

Copies of the final reports from evaluations and research performed in 2012 and the *Weatherization Assistance for Qualified Customers 2011 Annual Report* are included in *Supplement 2: Evaluation*.

Customer Satisfaction

In 2012, based on surveys conducted in 2011, Idaho Power received the highest customer satisfaction with business customers among western midsized utilities according to J.D. Power and Associates *2012 Electric Utility Business Customer Satisfaction Study*. In 2013, based on surveys conducted in 2012, Idaho Power's satisfaction among business customers decreased by 6 percent overall. 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 the

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.

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 any or all energy efficiency programs offered by Idaho Power.

The 2012 results of Idaho Power's quarterly customer relationship survey continued to show slight but steady improvement. Customers' positive perception of Idaho Power's energy efficiency efforts increased from 39 percent in early 2003, when energy efficiency-related questions were added to the survey, to 60 percent in late 2012. Idaho Power continues to expand its customer satisfaction measurement activities, which enable Idaho Power to identify actionable areas for improvement. Figure 6 depicts quarterly growth in the number of customers who indicated Idaho Power met or exceeded their needs concerning energy efficiency efforts encouraged by Idaho Power.

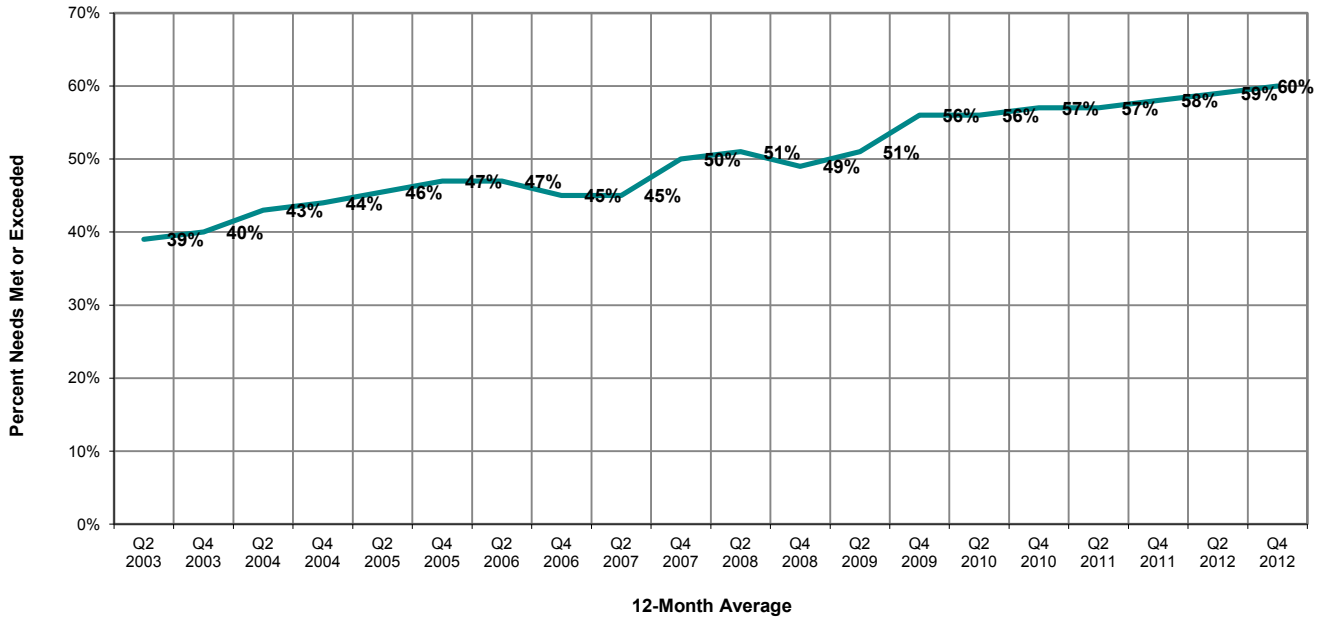

Figure 6. Percent of customers whose needs are met or exceeded by Idaho Power's energy efficiency efforts

Three questions related to energy efficiency programs in the general relationship survey were added in 2010 and continued in the 2012 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 2012, overall, 35 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, 90 percent are "very" or "somewhat" satisfied with the program.

Qualitative research in the form of focus groups and one-on-one customer interviews measured customer satisfaction with the Building Efficiency program in 2012. This research provided guidance for

program modification and marketing. Results from this research are presented in the program descriptions in this report under Building Efficiency.

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. If aspects of the program change significantly, a satisfaction survey will likely be warranted subsequent to the change.

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 specific potential program design will be cost effective from the perspective of Idaho Power and its customers. Incorporated into these models are inputs from various sources in order to 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 1 for the total resource cost (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 reexamined, including input provided from the company's EEAG.

Appendix 4 contains the UC and TRC B/C ratios using actual cost information over the life of each program through 2012. 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 2011, 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*.

In 2012, all three of the company's demand response programs were cost effective from a long-term perspective. Since this report is focused on cost-effectiveness for 2012 and with the final order pending on IPC-E-12-29, Idaho Power did not change the forecast of future expenses and program performance of its demand response programs. The Irrigation Peak Rewards and FlexPeak Management programs were shown to be cost effective from the one-year perspective for 2012. The A/C Cool Credit program was determined not to be cost-effective on a one-year perspective for 2012 because of the additional expense of replacing the paging switches with Advanced Metering Infrastructure (AMI)-compatible switches. All but two of Idaho Power's energy efficiency programs were cost effective from the UC, TRC, and PCT perspectives. WAQC and Weatherization Solutions for Eligible Customers programs are shown to be not cost-effective from the TRC and UC perspective. This was due to the lower estimated savings per home that resulted from the impact evaluation conducted by D&R International, Ltd. Fifty-two measures within programs were not cost effective from the UC or TRC perspective. Of those 52 measures, 40 were measures that were removed from the program offerings in 2012. Eleven measures will be reviewed and possibly modified in 2013. One measure will be removed in 2013. The specific cost-effectiveness ratios are included in *Supplement 1: Cost-Effectiveness*.

While verifying 2012 ENERGY STAR Homes Northwest program incentives for this report, Idaho Power found that 10 incentives out of 410 were paid to builders who submitted applications for ENERGY STAR gas-heated homes that were initiated in 2011. Since non-electrically heated ENERGY STAR Homes Northwest applicants with building permits dated after December 31, 2010, were excluded from this program in 2011, these 10 incentives should not have been paid. The total incentives paid for the 10 homes were $4,000. Gas-heated homes were excluded from the program because, as shown in *Supplement 1: Cost-Effectiveness*, gas-heated ENERGY STAR homes are not cost effective from the TRC perspective; however, they are cost-effective from the UC perspective, and the program remains cost-effective with the inclusion of the costs and savings from the gas-heated homes. In 2013, the fuel-type field in Idaho Power's database code was changed to allow only heat pump as the heating type. The code was changed on the incentive field to reflect electrically heated homes. These changes will prevent gas-heated homes from being given incentives in the future. Also in 2013, the incentive payment processes have been changed to provide a more thorough review of participant applications prior to payment.

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

Future Plans

Many of Idaho Power's DSM programs are selected for implementation through 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 in developing a preferred portfolio of future resources that meets the specific energy needs of Idaho Power's customers. In 2013, 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 continue to modify programs and measures and update energy savings and cost data to ensure all of its 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 with which to analyze its energy efficiency programs. The company will conduct research and analysis to determine the effects of these new costs on the cost-effectiveness of its programs. Additionally, the company will continue to expand and enhance 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 2012 Annual Report* remains mostly unchanged from the 2011 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 2012 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 2012 and 2011 program metrics in tabular format, followed by a general description, 2012 activities, cost-effectiveness, customer satisfaction/evaluation, and 2013 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 following the written sections contain tabular information on 2012 expenses and savings and supply 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 often 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 the 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.

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RESIDENTIAL SECTOR OVERVIEW

Description

Idaho Power serves a population of slightly over one million people. Of this overall population, at the end of 2012 the company was serving 416,020 residential customers in its Idaho and Oregon service areas. During 2012, Idaho Power added 4,533 residential customers, a significant increase of residential customers compared to 2,733 in 2011. The growth in residential customers is the largest increase of residential customers over the past five years. This positive trend points towards a decrease in economic uncertainty, with more housing starts occurring in the company's service area. However, it is important to keep this growth rate in perspective from the standpoint that at its highest growth rate, Idaho Power was adding over 15,000 residential customers per year. In 2012, the residential segment represented 35.8 percent of Idaho Power's total electricity usage.

During 2012, after three consecutive years without hitting a system peak, Idaho Power hit its new system peak of 3,245 MW on July 12 at 4:00 p.m. The previous system peak of 3,214 MW was on Monday, June 30, 2008, at 3:00 p.m. In 2012, the Idaho Power service area experienced higher than normal summer temperatures and a summer high temperature of 108 degrees on July 12, 2012. A/C Cool Credit and FlexPeak Management demand response programs were dispatched on July 12, helping reduce what would have been a higher system peak. The company also had a low system winter peak during 2012. The all-time winter peak for Idaho Power of 2,528 MW occurred on Thursday, December 10, 2009, at 8:00 a.m. The winter system peak during 2012 was only 2,133 MW on Wednesday, December 19, at 8:00 a.m. All of these factors contributed to a of 1.4-percent decrease in residential system sales from 2011 to 2012. However, when the system sales data is weather adjusted, this decrease is only 0.2 percent. Idaho Power continued its education and promotion of energy efficiency programs and information to all residential customers. These tasks and activities contributed to increased program participation and continued strong customer satisfaction results.

Programs

Table 6. 2012 residential program summary

Program	Participants		Total Cost		Savings	
			Utility	Resource	Annual Energy (kWh)	Peak Demand (MW)
Demand Response						
A/C Cool Credit	36,454	homes	$ 5,727,994	$ 5,727,994	n/a	44.9
Total			**$ 5,727,994**	**$ 5,727,994**		**44.9**
Energy Efficiency						
Ductless Heat Pump Pilot	127	homes	$ 159,867	$ 617,833	444,500	
Energy Efficient Lighting	925,460	bulbs	1,126,836	2,407,355	16,708,659	
Energy House Calls	668	homes	275,884	275,884	1,192,039	
ENERGY STAR® Homes Northwest	410	homes	453,186	871,310	537,447	
Heating & Cooling Efficiency Program	141	projects	182,281	676,530	688,855	
Home Improvement Program	840	homes	385,091	812,827	457,353	
Home Products Program	16,675	appliances/fixtures	659,032	817,924	887,222	
Oregon Residential Weatherization	5	homes	4,516	11,657	11,985	
Rebate Advantage	35	homes	37,241	71,911	187,108	
See ya later, refrigerator®	3,176	refrigerators/freezers	613,146	613,146	1,576,426	
Weatherization Assistance for Qualified Customers	238	homes/non-profits	1,370,141	1,819,945	648,304	
Weatherization Solutions for Eligible Customers	141	homes	1,070,556	1,070,556	257,466	
Total			**$ 6,337,777**	**$10,066,879**	**23,597,363**	

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

Programs available to residential customers include 1 demand response program, 12 energy efficiency programs, and 1 energy efficiency educational initiative. 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, bill inserts, bill messages, print advertisements, radio and television commercials, billboards, retail events, customer visits, and participation in home and garden shows as well as fairs.

Presentations to community groups and businesses continued to be a major emphasis during 2012. Idaho Power customer and community education representatives made hundreds of presentations in communities served by the company.

Idaho Power conducts the Burke Customer Relationship survey each year. This survey showed 53 percent of residential survey respondents in 2012 indicated Idaho Power is meeting or exceeding their needs with information on how to save energy or reduce their bill.

Sixty-one percent of residential respondents indicated Idaho Power is meeting or exceeding their needs by encouraging energy efficiency with its customers. Overall, 45 percent of Idaho Power residential customers surveyed in 2012 indicated Idaho Power is meeting or exceeding their needs in offering

energy efficiency programs, while 26 percent of the residential survey respondents indicated they have participated in at least one Idaho Power energy efficiency program. Of the residential survey respondents who have participated in at least one Idaho Power energy efficiency program, 83 percent are “very” or “somewhat” satisfied with the program.

A/C Cool Credit

	2012	2011
Participation and Savings		
Participants (participants)	36,454	37,728
Energy Savings (kWh)	n/a	n/a
Demand Reduction (MW)	44.9	24.0
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$4,804,566	$2,781,553
Oregon Energy Efficiency Rider	$92,810	$114,989
Idaho Power Funds	$830,618	$0
Total Program Costs—All Sources	$5,727,994	$2,896,542
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	n/a	n/a
Total Resource Benefit/Cost Ratio	n/a	n/a
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	1.33	
Total Resource Benefit/Cost Ratio	1.33	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2003	

Description

A/C Cool Credit is a voluntary, dispatchable demand response program for residential customers. Using communication hardware and software, Idaho Power cycles participants' central air conditioners (A/C) or heat pumps off and on via a direct-load control device installed on the A/C unit. This program enables Idaho Power to reduce system peaking requirements during times when summer peak load is high. Idaho Power may cycle participants' A/C for up to 40 hours each month in June, July, and August. In return, participants receive a $7 per-month credit on their Idaho Power bill during July, August, and September.

Customers' A/Cs are controlled using two types of switches that communicate either by 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.

In 2012, Idaho Power decided to replace existing radio-controlled paging switches with AMI switches due to declining radio paging coverage. There were approximately 23,500 paging switches in the field at the start of 2012. The company successfully negotiated with its third-party installation vendor to reduce the cost to replace the switches and worked with the switch supplier, Aclara®, to reduce the lead time to secure the necessary switches. This switch replacement project began in spring 2012. The project was originally planned to take approximately 18 months beginning in March 2012 and finishing in

June 2013. Switches in areas where paging coverage had been discontinued were replaced first and were replaced by June 15, 2012. Due to Idaho Power's filing of IPUC Case No. IPC-E-12-29 to temporarily suspend the program, the switch replacement project was discontinued in December 2012. At the end of 2012, approximately 7,640 radio-controlled paging switches were still on the system and 28,539 AMI switches were in the program.

2012 Activities

In 2012, Idaho Power contracted with PECI to conduct a research project for the A/C Cool Credit program. PECI's goals were to: 1) verify that savings can be estimated using AMI data, 2) verify that the adaptive algorithm embedded in the switches was working as designed, 3) create a predictive model for planning purposes, 4) estimate the kW reduction at various temperature and cycling strategies, and 5) test customer comfort impacts of higher cycling strategies to find optimum curtailment strategies that maximize kW results while minimizing customer comfort impacts.

To obtain the necessary data to complete this research and develop a predictive model, PECI needed observations of different curtailment strategies at different temperatures with corresponding baseline days where no curtailments occurred. The baseline days provided comparative information to ensure the impact on a curtailment day was fully attributed to the program. Overall, this curtailment research approach was a departure from previous years, where resources were called based on the perceived system need and value.

Based on PECI's research strategy and available days where the temperature matched the research design, there were 13 cycling events in 2012. One cycling event was in June, six events were in July, and six events were in August. Most events lasted from 4:00 p.m. to 7:00 p.m. For two events, participants were divided into two groups, with one group cycling from 4:00 p.m. to 7:00 p.m. and the second group cycling from 5:00 p.m. to 8:00 p.m. One hundred percent cycling, where the paging switches completely turn off the A/C units, was tested twice for one hour each time from 5:00 p.m. to 6:00 p.m.

Prior to the 2012 cycling season, the program specialist convened a working group to manage the complex nature of the cycling events required by the study. This working group included leaders and staff from the Customer Research & Energy Efficiency (CR&EE) department and representatives of Idaho Power's Metering department, who are responsible for configuring the dispatch software used by the AMI switches. The variables that needed configuration included three geographic areas, eight cycling percentages, and four time intervals that needed to be developed for two types of AMI switches.

This working group monitored the events and acted to address cycling issues as they occurred throughout the summer. After the cycling season, this group updated program process flow charts and provided input to PECI's Start-Up Checklist provided in their process evaluation report.

In 2012, due to the low switch inventory and the lead-time necessary to obtain switches, the company determined it would be best to use the available switches to replace paging switches and reduce marketing activities. The limited marketing methods used included a bill insert, follow-up letters for a cause-related effort, and a few small direct-mail campaigns.

The cause-related marketing approach used the last few years, consisting of partnering with the Idaho Foodbank and the Oregon Food Bank–Southeast Oregon Services, was updated and expanded to offer more choices for potential participants. The promotion started in mid-October 2011 and continued

through February 2012. Customers enrolling during this limited-time offer and having a switch installed chose between a $20 contribution made to the participant's local food bank and a $20 gift card to a retailer or restaurant of their choice. For 2012, this marketing approach yielded 315 new A/C Cool Credit enrollments. Gift card fulfillment was administered by a third party.

The criteria used for creating new participant solicitation lists were further refined in 2012 as part of a continuing endeavor to focus targeting efforts. Previous criteria included July energy use over 500 kWh; July use 15 percent or greater than April use; Idaho and Oregon residential customers in Ada, Bannock, Bingham, Canyon, Elmore, Gem, Gooding, Jerome, Malheur, Payette, Power, Twin Falls, and Washington counties; an active Utility Service Agreement (USA); "receive marketing" indicator yes; not an existing program participant; premise type is a house; no known landlord; and no duplicates. In 2012, a criterion was added to include 5 kW of demand, or more, for July. The mailing list was further refined to remove any miscellaneous accounts that met the above criteria but did not make sense to include, such as outbuildings, wells, religious facilities, estate accounts, or those managed by a third party.

Since the paging provider discontinued paging service to the Mountain Home Air Force Base (MHAFB), the company could not cycle the switches located in this area in 2012. The financial incentives previously paid to the MHAFB were discontinued. The company explored the option of partnering with the MHAFB to add additional paging equipment at the MHAFB; however, it was not possible to complete the contracts in time for the 2012 cycling season. As of the date of this publishing, a solution to use the paging switches on the MHAFB has not been determined.

Cost-Effectiveness

The B/C analysis for the A/C Cool Credit program is based on a 20-year model that uses financial and DSM alternate-cost assumptions from the most recent IRP. As published in the 2011 IRP, for peaking alternatives, such as demand response programs, a 170-MW simple-cycle combustion turbine (SCCT) is used as an avoided resource cost.

Because the 2013 IRP process has indicated a lack of near-term capacity deficits, on December 21, 2012, Idaho Power filed a proposal with the IPUC to temporarily suspend two of its demand response programs, A/C Cool Credit and Irrigation Peak Rewards, for 2013. A settlement workshop was held in February 2013 with Idaho Power and interested stakeholders to discuss plans for the 2013 cycling season. The stipulation agreed to in that settlement workshop was filed on February 14, 2013. Idaho Power will meet with stakeholders and interested parties in workshops to further discuss future changes and identify the best long-term solutions for 2014 and beyond.

For this report, based on the future uncertainty of these programs and because the IPUC has not issued an order in the IPC-E-12-29 case, Idaho Power used the assumptions from the information known prior to the filing to temporarily suspend the A/C Cool Credit program for its cost-effective analysis. The cost-effectiveness models were updated to include 2012 expenses and demand reduction, as well as 2013 budgeted expenses and forecasted performance. Under these assumptions, the A/C Cool Credit program had a lifecycle TRC ratio of 1.33 and a one-year TRC ratio of 0.68. See *Supplement 1: Cost-Effectiveness* for details on the cost-effectiveness assumptions and data.

Customer Satisfaction and Evaluations

As mentioned earlier, in 2012, Idaho Power contracted with PECI to conduct research on the A/C Cool Credit program to determine optimal curtailment strategies to meet cost-effectiveness targets and develop a predictive model that correlates weather forecasts with achievable kW load shifts from curtailment events. The results of this research showed that: 1) AMI data for evaluation is more reliable, accurate, and cost-effective than data loggers; 2) the embedded adaptive algorithm is operating as intended, although was only used once during the research period; 3) customer comfort is only minimally affected by higher cycling strategies and indoor temperature increase during events within the range expected for load control programs; and 4) the data from this research enabled PECI to create a predictive model that can be used for planning purposes.

The PECI research also demonstrated that the A/C Cool Credit program can achieve 1.09 kW per participant demand reduction when the weather is sufficiently hot and the cycling strategy is set appropriately. The research noted that on the July 2 event, one set of switches did not respond as expected. The event was intended to be a one-hour curtailment at 100 percent at a temperature of less than 90 degrees. The temperature rose above 90 degrees, which was outside the parameters recommended by PECI, thus the event was canceled. The paging switches and one set of the AMI switches responded; however, the other set of the AMI switches did not stop cycling when the event was cancelled. A change had been made to the scheduling software on Friday, June 29, and the Monday, July 2 event was the first event that occurred after this change was made. Upon investigating and working with the vendor, a coding error was found in the third-party software. Idaho Power developed an interim solution for future use. The vendor is aware of the situation and is working to develop a more permanent solution. The report also makes note that for the event on July 11, only one set of the AMI switches received the signal to dispatch. Idaho Power investigated and found a configuration setting that needed to be changed. This setting was corrected and tested before the event on the following day, July 12. All the switches responded correctly for that event.

Idaho Power also contracted with PECI to provide a process evaluation and program readiness plan. The objective of this evaluation was to document and evaluate the current program processes, identify best practices, and provide recommendations for improvement where applicable. The readiness plan was created to ensure interdepartmental coordination and program readiness prior to the 2012 curtailment season.

The process evaluation report indicated that the program has a high customer satisfaction rate, low churn rate, and a successful relationship with the delivery partner, Honeywell, Inc. PECI also noted that the program has operated successfully due to the continuity in program knowledge from the program specialist and the diligence of internal stakeholders.

PECI recommends: 1) determine appropriate metrics for measuring response rates to marketing campaigns; 2) more focus on customer retention; 3) clearly define roles, responsibilities, and accountability to increase collaboration between marketing and program staff; 4) incorporate pre-season testing of field equipment; and 5) more consistent messaging regarding program guidelines. Copies of both of these reports are included in *Supplement 2: Evaluation*.

2013 Strategies

The 2013 activities for this program hinge on the results of the company's proposal in IPC-E-12-29 to temporarily suspend the A/C Cool Credit program for the 2013 season and upcoming workshops on how to proceed with demand response programs for 2014 and beyond. The proposed suspension will

provide Idaho Power an opportunity to work with stakeholders to determine how this program might best serve customers and the company in the future. The company believes the filing is a prudent step to avoid expenses associated with the program until the company's planning process determines the future of the A/C Cool Credit program and the demand response programs in general. Because of this pending proposal, switch replacements were discontinued in December 2012. Approximately 15,564 paging switches have been replaced, and approximately 7,640 remain in the field.

Ductless Heat Pump Pilot

	2012	2011
Participation and Savings		
Participants (homes)	127	131
Energy Savings (kWh)	444,500	458,500
Demand Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$153,017	$183,260
Oregon Energy Efficiency Rider	$6,850	$7,923
Idaho Power Funds	$0	$0
Total Program Costs—All Sources	$159,867	$191,183
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.024	$0.028
Total Resource Benefit/Cost Ratio	$0.094	$0.081
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	4.22	
Total Resource Benefit/Cost Ratio	1.44	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2009	

Description

Idaho Power joined the Northwest DHP Pilot project in 2009 and implemented the pilot throughout its service area. The company extended the project as an Idaho Power DHP pilot through 2012. A main 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 2012, Idaho Power offered customers a $750 incentive payment to participate.

The program targets 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 mid-2011. Data was analyzed during the second half of 2011 and continued through 2012. An impact and process evaluation field metering report was published in 2012 by NEEA. NEEA will complete a billing analysis report, cost-effectiveness report,

and the final summary report in early 2013. Details about the regional DHP effort can be found at the project website at www.goingductless.com and www.neea.org.

2012 Activities

Idaho Power used several marketing methods during 2012 to promote the pilot. Examples include participating in trade shows with a working demo unit, advertising in 10 newspapers, sending direct-mail letters, and adding bill inserts. The use of social-media websites continued in 2012 to increase DHP Pilot awareness. Additional marketing materials included descriptions of customers' experiences with the program posted as *Success Stories* on the Idaho Power website. Copies of the two DHP Pilot 2012 *Success Stories* are provided in *Supplement 2: Evaluation*.

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 15 DHP Pilot orientation training sessions to participating and prospective contractors. Expansion strategies resulted in the addition of 12 companies to the list of participating contractors, a 22 percent increase over 2011.

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 several wholesalers supplying DHPs to the contractors. The program specialist met with several of these wholesalers to provide them the ability to promote DHPs to their contracting customers and to share helpful information. NEEA provided additional marketing and contractor training support for the DHP Pilot.

Idaho Power and other northwestern utilities participated in a 2012 NEEA-sponsored marketing campaign for DHPs conducted from September through December. Residents in the Idaho Power service area were targeted for the campaign using radio, television, and social-media website advertisements.

Cost-Effectiveness

In 2012, the RTF reaffirmed support for a provisional annual-savings estimate based on the installation of one indoor-unit installation until the full pilot analysis is completed in early 2013. 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 deemed savings per unit is estimated at 3,500 annual kWh until the pilot analysis is completed. Regardless of prior cooling, the type of electric-resistance heat the DHP was displacing, or the climate zone in which the unit is located, the RTF has only deemed one savings amount. Participant costs for the TRC estimate were calculated by averaging one-unit installations that occurred in Idaho Power's service area in 2012. The average installation cost was $4,358, which was an increase over the 2011 average cost of $3,407. Using the RTF-deemed savings, this program is shown to be cost effective. For details see *Supplement 1: Cost-Effectiveness*.

Customer Satisfaction and Evaluations

As part of the DHP Pilot, Idaho Power conducted on-site verifications (OSV) at completed installations in Idaho Power's service area to ensure the installations complied with program requirements.
The OSVs were beneficial for customers and the contractors. The inspector provided information to customers regarding maximizing the benefits of their DHP. The contractors received feedback from the

inspector and reviewed the installation requirements of the DHP Pilot. Ten percent of the installations received on-site verifications in 2012.

In 2012, NEEA provided two reports to update the DHP pilot. The following are report highlights. These reports are included on the CD accompanying *Supplement 2: Evaluation*.

Report E12-237, released May 2012

This report focuses on the detailed metering portion of the evaluation. Ecotope, Inc., installed metering equipment on a total of 95 homes selected from the participants in the DHP Pilot project. The metered sites were analyzed to develop the determinants of energy savings of the DHP systems as they operated across a variety of climates and occupants. The results of this report contribute to a more comprehensive understanding of DHP performance and its applicability as an energy efficiency measure in the Northwest. The metering results indicate supplemental heat from other fuels has less overall impact on savings than originally expected. The analysis also strongly indicates that increased indoor temperatures result in lower savings. The use of a DHP in place of baseboard heaters is far less sensitive to the characteristics of the home than would be expected in a conventional heating system. Other findings suggest the occupant's acceptance of this equipment is good and their satisfaction is uniform.
The amount of DHP cooling energy measured in the study was about 7 percent of the total value of heating savings. The cooling energy value was considered insignificant when compared to the heating savings value. Therefore, the cooling energy usage was not factored into the net impact of the equipment.

Report E12-245, released October 2012

This report is the second MPER of NEEA's Northwest DHP Initiative. The report presents evaluation findings based on 1) telephone surveys of households that purchased DHPs through the initiative, 2) telephone surveys of other general-population households, and 3) in-depth interviews with Northwest utilities that support the initiative, DHP manufacturers/distributors, and installers. The report includes current data on the DHP market in the Northwest. The report findings suggest that multimedia marketing should be continued. Word-of-mouth marketing is a tactic that should be incented as well.
The distributors should also be encouraged to promote DHPs that can perform well in extremely low outdoor temperatures. The report also suggests that banks and financial institutions be encouraged to offer financing for DHPs.

2013 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 success of the contractor's ability to promote and leverage the DHP Pilot. Frequent individual contractor meetings will be held in 2013. The program specialist, along with Idaho Power CRs, will arrange these meetings.

To promote the residential adoption of the DHP technology in Idaho Power's service area, the strategy 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 helpful information.

Traditional and new marketing methods will be used in 2013 to reach the target audience. Knowing contractors are a vital marketing asset, contractor visits will be made in the first half of 2013 to better understand how Idaho Power can support them in promoting the DHP Pilot program, as well as the H&CE Program. Specifically, Idaho Power will discuss the helpfulness and usability 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 areas or fields contractors can customize with their specific business name, address, and phone number. The creation of this contractor portal will be based on contractor feedback.

Also planned for 2013 are online behavioral advertisements, print advertisements, and direct-mail pieces targeted to customers who have high electric winter usage, as well as customers who have moved into a new home, which research has shown have a higher likelihood to make home upgrades. Behavioral advertisements refer to advertisements posted on websites based on an individual's recent web behavior. For example, if someone views a major automobile company's website, automobile advertisements will pop up on other unrelated websites viewed because the Internet Protocol (IP) address of the viewer's searches is tracked.

Energy Efficient Lighting

	2012	2011
Participation and Savings		
Participants (bulbs)	925,460	1,039,755
Energy Savings (kWh)	16,708,659	19,694,381
Demand Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$1,110,329	$1,668,328
Oregon Energy Efficiency Rider	$16,507	$50,805
Idaho Power Funds	$0	$0
Total Program Costs—All Sources	$1,126,836	$1,719,133
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.012	$0.015
Total Resource Benefit/Cost Ratio	$0.025	$0.024
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	4.47	
Total Resource Benefit/Cost Ratio	3.05	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2002	

Description

The Energy Efficient Lighting program strives for residential energy savings through the replacement of less-efficient lighting with more-efficient technology. 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 End Use* study 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® qualified compact fluorescent lamps (CFL) are an alternative to standard incandescent light bulbs that result in saved money, energy, and time. 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 incandescent bulbs.

2012 Activities

In 2012, the Energy Efficient Lighting program provided more than two-thirds of all energy savings derived from residential energy efficiency customer programs. This contribution is expected to decline in future years as CFL penetration rates increase and more efficient lighting standards are enforced.

The Energy Efficiency Lighting program follows a markdown model that provides incentives directly to the manufacturers or retailers with savings passed onto 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.

In 2012, Idaho Power again participated in the Bonneville Power Administration (BPA) Simple Steps, Smart Savings™ promotion focusing on ENERGY STAR specialty and spiral bulbs. Fluid Market Strategies 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. Additional marketing by Idaho Power included the utility website, events, and presentations to customers.

CFL fixtures are an option under the BPA's Simple Steps, Smart Savings markdown promotion. In 2012, Idaho Power dropped light fixtures from the Home Products Program and added them as a measure to the Simple Steps, Smart Savings promotion under the Energy Efficient Lighting program. However, no sales of fixtures were reported in 2012 under this promotion.

Additional 2012 program activities included direct distribution and retailer education events. Idaho Power has a small, direct-distribution program where bulbs are given directly to customers at appropriate venues. The idea is, if given a free bulb, 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.

During 2012, Idaho Power participated in six retailer events with large national retailers. Retailer events were designed to communicate directly to customers at the point of sale. Idaho Power staff set up tables with light displays at the entrances of stores and answered questions about CFLs.

The Energy Efficient Lighting program was one of three Idaho Power programs that sponsored the local, semi-professional basketball team, the Idaho Stampede, at the team's Green Week games in April. As part of the promotion, Idaho Power ran a 30-second public-service announcement (PSA) on energy-efficient lighting that aired at two Idaho Stampede home games. The announcement was posted to Idaho Power's website and to YouTube. At the two Idaho Stampede games, the promotion included a light bulb demonstration using a bicycle to power incandescent and CFL bulbs. Sixty-eight people rode the bike at the games and learned firsthand how much less electricity CFL blubs use compared to incandescent bulbs.

Three presentations were developed for use by Idaho Power staff focusing on lighting basics, outdoor lighting, and holiday lighting. A lighting-basics presentation was given at the Ada County Extension office and the Idaho Green Expo.

In 2012, Idaho Power began participating in the Northwest Regional Retail Collaborative (NWRRC) facilitated by NEEA and following work by the Western Regional Utility Network. Both the NWRRC and the Network seek to develop collaborative approaches to working with manufactures and retailers to increase the uptake of energy-efficient products in the retail market.

In 2012, Idaho Power began 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 2012, the RTF updated several assumptions for specialty CFL bulbs. The change to baseline and efficient wattage assumptions, though minimal, did contribute to the decrease in savings. The RTF reviewed studies and took into consideration the changes in bulb efficiency standards from the

Energy Independence and Security Act of 2007 (EISA), as well as regional sales data. Additionally, there was a change to the hours-of-use assumptions for various lamp types and storage rates that further contributed to the decrease in savings. Despite the change, the measures still remain cost effective. The savings for spiral bulbs remained unchanged. For detailed cost-effectiveness assumptions, metrics, and sources, see *Supplement 1: Cost-Effectiveness*.

2013 Strategies

Idaho Power will continue to participate in Simple Steps, Smart Savings through 2013. Marketing for this program will continue to include point-of-purchase signs at the retailer managed by Fluid Market Strategies. Idaho Power will also promote the program through its website, events, and presentations.

Idaho Power will continue to distribute limited quantities of bulbs directly to customers at appropriate public energy efficiency events and continue to participate in retailer educational events. An evaluation will be made based on the cost to put CFLs in new-customer welcome packets. Customer education regarding savings of time and energy from these improved products will continue.

The company will monitor the market and emerging technologies. Light-emitting diode (LED) light bulbs are on display at many major retailers. As of December 2012, there were over 1,300 products on the ENERGY STAR criteria list for LED replacement bulbs. Seventy-five percent are reflectors. Market prices for LED products are significantly higher than CFLs and EISA-compliant halogens.[1] Idaho Power will continue to evaluate the price, availability, savings, and technology of LED lighting to determine if it should be included in the future.

Idaho Power will also 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.

In 2013, Idaho Power plans to do a third-party process evaluation of the Energy Efficient Lighting program.

[1] Example: An ENERGY STAR qualified, 60-watt (W) equivalent A-lamp LED equivalent by Phillips retails between $25.45 and $38.50 according to Consumer Reports at http://www.consumerreports.org/cro/home-garden/home-improvement/lightbulbs/lightbulb-ratings/models/overview/philips-ambientled-12-5w-12e26a60-60w-409904-99040398.htm.

Energy House Calls

	2012	2011
Participation and Savings		
Participants (homes)	668	881
Energy Savings (kWh)	1,192,039	1,214,004
Demand Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$272,666	$447,229
Oregon Energy Efficiency Rider	$3,217	$36,146
Idaho Power Funds	$0	$0
Total Program Costs—All Sources	$275,884	$483,375
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.016	$0.027
Total Resource Benefit/Cost Ratio	$0.016	$0.027
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	3.05	
Total Resource Benefit/Cost Ratio	3.05	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2002	

Description

The Energy House Calls program helps manufactured and mobile homeowners with electric heating reduce electricity use by improving the home's efficiency. 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 services are provided free to participants. The typical cost range of the average service call is $325 to $550. Idaho Power provides the customer with the sub-contractor contact information. Customers access the service and schedule an appointment by directly calling one of the recognized, certified sub-contractors specially trained to provide these services in their region.

2012 Activities

Energy House Calls serviced 592 manufactured homes during 2012, resulting in 1,192,039 kWh savings. Seventy-six percent of the homes serviced were located in the Treasure Valley. Twenty-four percent were outside the Treasure Valley, with 11 percent in Eastern Idaho and 13 percent in Southern Idaho. Quality-assurance (QA) checks were conducted on 5 percent of the homes serviced in the program. Idaho Power coordinates the sub-contractors performing local weatherization and

energy efficiency services, processes sub-contractor paperwork, and pays 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. The direct-mail postcards were sent to all customers identified as living in a manufactured home. Feedback from Idaho Power sub-contractors indicated the direct-mail postcards yielded the most amount of interest in the program. This was the most effective form of marketing.

During summer 2012, Idaho Power employees marketed the Energy House Calls program to managers and residents of mobile home parks in Twin Falls, Pocatello, and Chubbuck. Marketing efforts included distributing marketing material, leaving door hangers, and answering customer questions and inquiries. Marketing materials informed customers their inquiries would be forwarded to the appropriate contractor.

Idaho Power field staff CRs and call-center customer service representatives (CSR) are educated about the program and will continue to promote it to qualified customers.

Cost-Effectiveness

Duct-sealing deemed savings for manufactured homes were revised in spring 2012 by the RTF to bring the measure into compliance with current guidelines. The measure definition was also updated to reflect different manufactured home styles.

The baseline pre- and post-supply duct leakage were analyzed by the RTF as part of the comprehensive measure review during 2012, and the results were reported at the October 2012 RTF meeting.
The baseline duct leakage increased from a previous 15 percent to 20 percent, which corresponds to more duct leakage being found in existing homes, resulting in increased savings from duct sealing.
The increased baseline leakage is consistent with data collected from Idaho Power projects. The updated savings were provided along with new measure definitions splitting out savings by either single-wide manufactured homes and double-wide or triple-wide manufactured homes. Annual savings reported for 2012 were assigned by the home's heat source, the existence of central A/C (electric furnace with and without A/C) or a heat pump, and the home's climate zone. For more detailed information about the cost-effectiveness savings and assumptions, see *Supplement 1: Cost-Effectiveness*.

Customer Satisfaction and Evaluations

To monitor QA in 2012, third-party verifications were conducted by Momentum, LLC on approximately 5 percent of the participant homes, resulting in 33 home inspections. The final round of QA results is being analyzed during first quarter 2013 and appears to be 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 test to verify the results submitted by the sub-contractor.

2013 Strategies

Plans for the upcoming year include continuing the direct-mail campaign throughout the Idaho Power service area to increase market penetration. Based off low response rates in the Eastern and Southern regions, there are concerns the market may be reaching saturation. Possible reasons for the lack of participation include an imperfect mailing list and the difficulty in identifying manufactured homes on the Idaho Power billing system. Idaho Power updated the mailing list used for the direct-mail letters in

2012 and plans to do the same in 2013. The list is generated from homes designated as manufactured or mobile on Idaho Power's CIS and is analyzed for homes that appear to use electric heat, based on kWh use during winter and summer months. The company will also continue to explore low-cost and effective methods of marketing this program to all residential customers believed to have electrically heated manufactured homes. This form of marketing may yield additional word-of-mouth promotion to potential program participants. Less broad-based outreach efforts will continue via CRs and limited-income outreach entities.

ENERGY STAR® Homes Northwest

	2012	2011
Participation and Savings		
Participants (homes)	410	308
Energy Savings (kWh)	537,447	728,030
Demand Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$450,727	$255,405
Oregon Energy Efficiency Rider	$2,458	$4,357
Idaho Power Funds	$0	$0
Total Program Costs—All Sources	$453,186	$259,762
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.046	$0.020
Total Resource Benefit/Cost Ratio	$0.089	$0.051
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	3.77	
Total Resource Benefit/Cost Ratio	2.51	
Program Characteristics		
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 United States (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 are electrically heated 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 independent, third-party HPS and are certified by the Washington State University Extension Energy Program, an organization that conducts the certification inspections throughout the state of Idaho and for the EPA. The homes are more efficient, comfortable, and durable than standard homes constructed according to 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.

In 2012, builders involved in ENERGY STAR Homes Northwest received a $1,000 incentive per home built to the Northwest Builder Option Package (BOP) electrically heated homes standard. Builders who entered their homes in a Parade of Homes received the standard $1,000 incentive plus an additional $500 incentive to encourage builders to construct ENERGY STAR homes.

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 2012 was to provide marketing materials and conduct education and training activities for residential new construction industry partners.

2012 Activities

As the housing market slowly started to improve throughout the Idaho Power service area in 2012, the ENERGY STAR Homes Northwest program showed an increase in ENERGY STAR Homes certified from 308 in 2011 to 410 in 2012.

Idaho Power conducted numerous ENERGY STAR promotional activities during 2012. 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, the Snake River Valley Building Contractors Association (SRVBCA) Builder's Expo, the Magic Valley Builders Association Parade of Homes (MVBA), the BCASWI Parade of Homes, SRVBCA Parade of Homes, the Building Contractors Association of Southeast Idaho (BCASEI) Parade of Homes, and the Idaho BCA Convention. Idaho Power joined with Northwest ENERGY STAR for a minor sponsorship of the 2012 St. Jude Dream Home®. The Dream Home was a certified, electrically heated, ENERGY STAR home. Northwest ENERGY STAR secured the donation of the heat pump. Idaho Power produced a bill insert, sent to all residential customers in the Idaho Power service area, promoting ENERGY STAR homes and highlighting the 2012 Dream Home.

Other marketing projects involved adding a message about this program to residential customers' electric bills. These bill messages encouraged Idaho Power customers to visit ENERGY STAR certified homes in their local Parade of Homes events.

Cost-Effectiveness

There were no changes to RTF deemed-savings values for single family ENERGY STAR homes during 2012. In fall 2012, the RTF produced deemed annual savings for multi-family ENERGY STAR homes using a blended prototype of low-rise, multi-family dwelling types that included a townhome design. The modeled multi-family ENERGY STAR home prototype included a range of homes sizes between 950 to 1,500 square feet (ft^2). The average size of a townhome in the program in 2012 was 925 ft^2, which falls within the RTF-modeled prototype range. The annual deemed savings for the townhome are approximately one-third the annual savings of a traditional detached single-family home and vary depending on the climate zone between 599 and 770 kWh annual savings. Since 396 out of 410 ENERGY STAR homes given incentives by Idaho Power in 2012 were townhome style homes and did not fit the traditional single-family home, the company applied the new updated savings to all townhomes.

While verifying 2012 ENERGY STAR Homes Northwest program incentives for this report, Idaho Power found 10 incentives, out of a total of 410, that were inadvertently paid to builders who submitted applications for ENERGY STAR gas-heated homes. Since non-electrically heated ENERGY STAR Homes Northwest homes with building permits dated after December 31, 2010, were excluded from this program in 2011, these 10 incentives should not have been paid. The costs and savings are included in the cost-effectiveness analysis, and although the company has determined that gas-heated homes are not cost-effective, the program remains cost-effective. For more detailed information about the cost-effectiveness savings, sources, calculations, 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-only BOP. Along with verifying the installation of building components and equipment through on-site inspections, prior to being certified, the home must pass a blower door test, air-duct leakage test, and combustion back-draft tests.

The state-certifying organization (SCO) performs QA. 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.

2013 Strategies

As in 2012, builders involved in ENERGY STAR Homes Northwest during 2013 will receive a $1,000 incentive per home built to the Northwest BOP, electric-only standards in Idaho Power's service area. Builders showcasing their electric-only 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 sell ENERGY STAR homes, including educating consumers, Realtors, and appraisers about the benefits and features of ENERGY STAR homes. 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 Building Contractor Association of Eastern Idaho. Bill inserts will be sent to all residential customers in April and May. 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.

In 2013, changes were made in Idaho Power's database and payment review process to prevent incentives to be paid for gas-heated ENERGY STAR homes. The fuel-type field in Idaho Power's database code was changed to allow only heat pump as the heating type. Also, the code was changed on the incentive field to reflect electrically heated homes. Also in 2013, the incentive payment processes have been changed to provide a more thorough review of participant applications prior to payment.

In 2013, Idaho Power plans to conduct a third-party process evaluation of the ENERGY STAR Homes Northwest program.

Heating & Cooling Efficiency Program

	2012	2011
Participation and Savings		
Participants (projects)	141	130
Energy Savings (kWh)	688,855	733,405
Demand Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$175,483	$188,876
Oregon Energy Efficiency Rider	$6,798	$6,894
Idaho Power Funds	$0	$0
Total Program Costs—All Sources	$182,281	$195,770
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.018	$0.018
Total Resource Benefit/Cost Ratio	$0.066	$0.056
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	3.49	
Total Resource Benefit/Cost Ratio	1.78	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2007	

Description

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

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 residential customers and heating, ventilation, and air conditioning (HVAC) participating contractors who install eligible equipment. The eligible measures in 2012 included air-source heat pumps, open-loop water-source heat pumps, and evaporative coolers.

Heating and A/C companies authorized by Idaho Power as participating contractors for the program are required to perform all installations, with the exception of evaporative coolers, which can be self-installed. The program continued through 2012 with the same portfolio of incentives as in 2011.

2012 Activities

The H&CE Program's list of measures and incentives during 2012 included the following:

- Air-source heat pump 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.

- 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. 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 open-loop water-source heat pump 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.

The expanding 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. Six companies were added in 2012 to Idaho Power's list of participating contractors, doubling the number added from 2011.

Idaho Power held training sessions for contractors in September that provided general instructions on heat pumps and program guidelines. For a company to be eligible to join the program as a participating contractor, they must have attended this training. Fourteen technicians from eight companies attended the sessions in 2012. These training sessions remain an important part of the program because the training creates opportunities to invite additional contractors into the program.

Several marketing tactics were used during 2012 to reach customers. Examples include print advertising in newspapers, direct-mail, bill inserts, and trade shows. The use of social-media websites continued in 2012 to increase program awareness. Additional marketing materials included descriptions of customers' experiences with the program posted as *Success Stories* on Idaho Power's website. Copies of the two H&CE Program 2012 *Success Stories* are provided in *Supplement 2: Evaluation*.

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

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.

On the national level, a 2011 federal tax credit for heat pumps contained in section 25C of the Internal Revenue Service (IRS) tax code was not renewed for 2012.

Cost-Effectiveness

The savings for heat pumps installed under the H&CE Program consists of both savings for the increased efficiency of the equipment and savings resulting from quality installation, including proper unit sizing, controls settings, and commissioning. While the core savings of air-source heat pumps were not updated or changed by the RTF during 2012, other measures currently not deemed by the RTF, including lower-tier savings heat pumps, evaporative A/Cs, and geothermal heat pumps savings sources were reviewed to ensure they were consistent with the current regional work done by the RTF. For 2012, participant costs' averages used for the cost-effectiveness analysis were calculated using Idaho Power-specific project data instead of relying on regional averages.

There were no changes in 8.5 HSPF air-source heat pump annual savings for 2012 when customers were displacing electric furnaces. Additional equipment savings were claimed in 2012 in cases were customers' equipment performance exceeded an HSPF rating of 9. An additional 115 to 128 annual kWh were claimed depending on the customer's climate zone.

The previous savings for evaporative coolers (swamp cooler) were based on the 2009 potential study and on a generic prototype evaporative cooler that was not differentiated between a direct or indirect cooler design. Indirect cooler designs have specialized equipment that pre-cools the air before the evaporation process occurs, which substantially increases the savings and equipment costs. The few incentives that Idaho Power paid for evaporative coolers were for the direct-cooler design that pushed direct outside air into the cooler with no pre-treatment. The savings were reduced from an annual savings rate 1,300 kWh over a seasonal energy efficiency ratio (SEER) 13 code central A/C to between 300 and 400 annual kWh depending on whether the cooler was installed in a multi-family manufactured home or single-family home. For more detailed information about the cost-effectiveness savings, sources, calculations, and assumptions, see *Supplement 1: Cost-Effectiveness*.

Customer Satisfaction and Evaluations

Idaho Power contracted with The Cadmus Group, Inc., to conduct an impact evaluation of 2011 savings results. The evaluation report indicated that most measures were installed in compliance with PTCS commissioning, controls, and sizing standards. Tracked data was complete and accurate, and ex-ante energy savings were a reasonable but needed refinement. The program ex-post realized savings rate was 94 percent as compared to ex-ante estimates.

The Cadmus Group, Inc., recommends the following: 1) program staff continue to collect detailed data on each project to refine individual project savings estimates, 2) perform a saturation study to determine intent to convert to all-electric heating and cooling, and 3) consider the promotion of on-bill financing to make a heat pump more attractive to customers. A copy of the complete report is included in *Supplement 2: Evaluation*.

The program performed random OSVs on 14 completed installations in the Idaho Power service area, resulting in 10 percent of the total applicants. 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. The program specialist continues to work with contractors to help them understand the importance of accurate documentation.

2013 Strategies

There will be two changes to the program in 2013. The first change is the removal of measures involving air-source heat pumps below 8.5 HSPF. The measures 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 that 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, rendering an incentive unnecessary.

The second change is 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. The incremental installed cost of a new heat pump is approximately $3,000. Idaho Power has evaluated the cost-effectiveness of this measure with an $800 incentive, and this measure continues to be cost effective.

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. The goal is to support contractors currently in the program while adding new contractors. The performance of the program is substantially dependent on the success of the contractors' abilities to promote and leverage the measures offered in the program. Frequent individual meetings will be held with contractors in 2013. The program specialist, along with Idaho Power CRs, will arrange the discussions.

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.

Numerous marketing methods will be used in 2013 to reach the target audience. Knowing contractors are a vital marketing asset, contractor visits will be made in the first half of 2013 to better understand how Idaho Power can support them in promoting the H&CE Program, as well as the DHP Pilot. During the visits with contractors, the marketing specialist and the program specialist will specifically discuss the helpfulness and usability of a new contractor portal housed on Idaho Power's website. The portal will provide contractors access to pre-designed and approved marketing collateral materials. These materials will include specific areas or fields contractors can customize with their business name, address, and phone number. The creation of this contractor portal will be based on contractor feedback.

Also planned for 2013 are online behavioral advertisements, print advertisements, and direct-mail pieces to targeted customers who have high electric winter usage and who have moved into a new home. Research has shown new home buyers are more likely to make home upgrades in the first two years of ownership.

In 2013, Idaho Power plans to do a third-party process evaluation of the H&CE Program.

Home Improvement Program

	2012	2011
Participation and Savings		
Participants (homes)	840	2,275
Energy Savings (kWh)	457,353	917,519
Demand Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$385,091	$666,041
Oregon Energy Efficiency Rider	$0	$0
Idaho Power Funds	$0	$0
Total Program Costs—All Sources	$385,091	$666,041
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.044	$0.038
Total Resource Benefit/Cost Ratio	$0.093	$0.155
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	3.15	
Total Resource Benefit/Cost Ratio	1.21	
Program Characteristics		
Program Jurisdiction	Idaho	
Program Inception	2008	

Description

The Home Improvement Program offers incentives to homeowners for upgrading insulation in electrically heated homes. The program's list of measures and incentives in 2012 consisted of the following:

- Customer incentives for attic insulation, wall insulation, under-floor insulation, and required prescriptive air- and duct-sealing.
- Customer incentives to Idaho residential customers in the Idaho Power service area for additional insulation professionally installed was 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.

On April 1, 2012, the program transitioned from an open contractor program to a participating contractor program. Participating contractors must successfully complete a two-day contractor training

course administered by Fluid Market Strategies. Customers must use a participating contractor to qualify for the Idaho Power incentive.

Also on April 1, 2012, the program transitioned from being a fuel-neutral program to an electrically heated home program. To qualify for an incentive under this program, the home must be a single-family home, including duplexes and townhomes. 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. On April 1, 2012, wall insulation, under-floor insulation, and required prescriptive air- and duct-sealing were added to the program.

2012 Activities

Due to the increased complexity of the program requirements, Idaho Power brought the outsourced, third-party incentive processing back in house. All Home Improvement Program incentive applications are now processed by Idaho Power staff.

Various marketing techniques were employed in 2012. Movie theater advertising ran during June, July, and August in the Boise, Nampa, Pocatello, and Cascade markets. A small-market print advertising campaign ran in November and December. An informational bill insert ran in October, and a direct-mail letter targeted to electrically heated customers was sent out in November. All of these marketing activities resulted in increased customer inquiries regarding program details and provided opportunities for customer education.

Cost-Effectiveness

Supplement 1: Cost-Effectiveness contains cost-effectiveness information for attic, wall, and floor insulation measures broken out by customers' electric heating source equipment type, R-value change, climate zone, and presence of central A/C if applicable. Additionally, the cost-effectiveness results in *Supplement 1: Cost-Effectiveness* are shown for the Home Improvement Program attic insulation measures phased out in the first trimester of 2013. These measures included previously available incentives for customers with central A/C, regardless of heating fuel type.

Although the RTF reviewed 2011 attic insulation measures for compliance and RTF guidelines during 2012, no changes were made to deemed annual savings values. Deemed-savings values specific to Idaho Power's climate zones were published by the RTF in October 2011, including cooling savings based on the RTF's deemed savings for single-family home weatherization published in July 2011.

A change in the Idaho Power cost-effectiveness analysis for 2012 was the inclusion of the RTF specifications requiring homes to be adequately air-sealed, including air ducts, prior to the installation of attic and floor insulation. Idaho Power included the costs of the $0.30-per-linear-foot incentive offered to program participants who needed to have air- and duct-sealing done to align with the updated guidelines. When calculating the TRC, the installed costs were averaged across attic and floor insulation projects, including costs to air- and duct-seal to assess cost-effectiveness. The additional project costs had minimal impacts to participant costs and the overall cost-effectiveness of project costs per square foot, staying consistent with the RTF deemed participant cost estimates. 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 randomly reviewed 10 percent of all insulation jobs completed in the Home Improvement Program. With the addition of the new program requirements in April 2012, these QA contractors also performed in-progress QA to assist and educate the contractors on the new program requirements, particularly the air- and duct-sealing requirements. Of the 80 QA inspections completed in 2012, two issues concerning post-insulation depth were reported and corrected.

One voluntary marketing question, inquiring how the customer heard about the program, was added to the program incentive application form. Of the 840 applications, 196 customers answered the marketing question. Ninety-two customers (47%) heard about the program from an insulation contractor, while 66 customers (34%) heard about the program from an Idaho Power bill insert. Twenty-six customers (13%) received a referral from a friend or acquaintance, eight customers (4%) heard about the program from the Idaho Power website, and four customers (2%) heard about the program from a newspaper advertisement.

2013 Strategies

In February 2013, Idaho Power plans to add an energy-efficient-windows measure to the Home Improvement Program. Windows being replaced must be single-pane wood frame, single-pane metal frame, or double-pane metal frame. As with all other Home Improvement Program measures, only electrically heated homes qualify for an incentive.

In addition, beginning in February 2013, manufactured homes meeting all program qualifications will be eligible for all Home Improvement Program incentives.

Numerous marketing activities are planned for 2013. A new program brochure and web page update are planned for February 2013, in conjunction with program additions and updates. Informational bill inserts are planned for February and April. Targeted direct-mail letters are planned for April and October. Facebook advertisements in high-electric-usage areas are planned for January and September. Print advertisements in select rural areas are planned for February.

Home Products Program

	2012	2011
Participation and Savings		
Participants (appliances/fixtures)	16,675	15,896
Energy Savings (kWh)	887,222	1,485,326
Demand Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$640,098	$619,764
Oregon Energy Efficiency Rider	$18,829	$18,559
Idaho Power Funds	$105	$0
Total Program Costs—All Sources	$659,032	$638,323
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.061	$0.034
Total Resource Benefit/Cost Ratio	$0.075	$0.080
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	2.26	
Total Resource Benefit/Cost Ratio	1.40	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2008	

Description

The Home Products Program provides an incentive payment to Idaho and Oregon residential customers for purchasing ENERGY STAR® qualified appliances. Appliances and products with ENERGY STAR must meet higher, stricter efficiency criteria than federal standards. In 2012, the measures and related incentives included ENERGY STAR qualified clothes washers ($50), refrigerators ($30), and freezers ($20). 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. This mid/upstream incentive model is potentially anticipated to be powerful in changing markets when incentive dollars are small per product but the product category has a high volume of sales. "Upstream and midstream incentives offer the advantage that incentive amounts can sometimes be lower, as market partners may need less 'convincing' to make or sell efficient technologies."[2]

[2] http://www.epa.gov/cleanenergy/documents/suca/program_incentives.pdf.

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 Campaign program. This program provides a direct incentive to manufactures for producing the most energy-efficient televisions available. NEEA manages advertising, sales support, and in-store promotions for the program.

2012 Activities

Marketing the Home Products Program to customers occurs primarily through retail outlets. Idaho Power provides 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, fixture hang-tags and static clings—small, sticky decals—were distributed to nearly 80 retailers for placement on qualifying products. The prominent focus for using hang-tags and clings was to highlight the respective incentive amounts and eligible products.

In 2012, 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 have the option of online or paper applications. Both methods require the customer submit a copy of the sales receipt to confirm the product purchase. If submitting the application online, customers have the option of uploading their receipt, or mailing it in, along with a copy of their web page confirmation.

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 2012, two bill inserts detailing the program were mailed to all residential customers. The spring (April) insert was shared with the Rebate Advantage program. The holiday bill insert (November) was shared with the DHP Pilot program.

As a result of findings from the 2011 impact evaluation completed by ADM Associates, Inc. (ADM), it was determined that ceiling fans, ceiling fan light kits, and LED light fixtures no longer met cost effectiveness requirements. Thus, these three products, along with CFL fixtures, were removed from the list of eligible products, effective March 1, 2012.

CFL fixtures are an option under the BPA's Simple Steps, Smart Savings markdown promotion. In 2012, Idaho Power evaluated including CFL fixtures in its administration of the Simple Steps, Smart Savings promotion. Due to different incentive structures and lower administration costs, CFL light fixture incentives are cost effective if delivered under the Simple Steps, Smart Savings markdown model. Therefore, in March 2012, light fixture incentives for select fixtures were added as a measure to the Simple Steps, Smart Savings promotion under the Energy Efficient Lighting program. However, no sales for fixtures were reported in 2012 under this promotion.

An option on the application allows customers to donate their entire incentive to Project Share, an energy assistance program where Idaho Power partners with the Salvation Army. In 2012, Home Products Program participants donated $190 to this cause. A Project Share donation thank-you card created specifically for the Home Products Program was sent to customers who donated their incentive.

NEEA created a marketing campaign for the Energy Forward campaign in fall 2012 to promote energy-efficient televisions. The campaign objectives were to drive sales of Energy Forward televisions at partner retail stores, provide retailers, utilities, and manufacturers with additional channels of promotion; increase retailer and utility engagement and partnership in the promotion of Energy Forward televisions; and increase consumer awareness and adoption of Energy Forward televisions.
The campaign included a sweepstakes hosted through the Energy Forward Facebook page located at www.Facebook.com/EnergyEfficientElectronics. Northwest residents could win Energy Forward televisions, tickets to college football games, and a grand prize of a VIP tailgate party in each of the four Northwest states—Idaho, Montana, Oregon, and Washington.

The campaign in Idaho generated 218 contest entries. Best Buy and Sears stores participated as full campaign partners, which included additional sales associate trainings and educational and campaign-related point of purchase material in all Best Buy and Sears stores. NEEA also secured discounted rates for in-store broadcasts of the *Energy Forward Most Efficient* video on televisions screens in the consumer electronics sections of Best Buy, Costco, Sam's Club, Sears, and Wal-Mart.

Through the Home Products Program, Idaho Power paid 16,675 incentives during 2012, resulting in 887,222 kWh savings. Incentives were issued for approximately 6,338 clothes washers, 4,497 refrigerators, 461 freezers, 285 light fixtures, 7 ceiling fans, 2 ceiling fan light kits, and 5,085 showerheads.

Cost-Effectiveness

In 2011, ADM reviewed the savings for each measure. ADM reduced the annual savings estimate for ceiling fans from 159.36 kWh to 59 kWh. The savings for ceiling fan light kits were based on the number of CFLs in each kit. In 2011, the RTF reduced the annual savings for CFLs from 24 kWh to 16 kWh. Additionally, ADM confirmed the RTF's assumptions and lower savings regarding LED light fixtures. As a result of these changes, the measures were determined not to be cost effective and were removed from the program in March 2012.

In 2012, the RTF updated the savings for clothes washers and freezers. For clothes washers, the RTF looked at the impact of the new federal standards and the efficiency levels of clothes washers readily available in the Pacific Northwest market. The RTF also updated the savings assumptions on annual loads of laundry using the research from the recent Residential Building Stock Assessment (RBSA) conducted by NEEA. As a result of this work, the baseline efficiency for clothes washers increased and the savings decreased. For programs like Idaho Power's that do not restrict the modified energy factor (MEF), the annual savings decreased from 122 kWh to 37 kWh, which has made the measure not cost effective. In the 2011 impact evaluation, ADM recommended applying the RTF's breakouts for clothes washer savings by MEFs; however, due to a measure definition change by the RTF, Idaho Power has applied the wide-ranging ENERGY STAR clothes washer savings for any type of domestic hot water heating system and any dryer type. As before, Idaho Power adjusted the savings downwards to reflect the electric hot-water heater and electric dryer saturation in the Idaho Power service area. The adjustment is based on information from the *2010 Home Energy Survey*.

The RTF updated the baseline for freezers based on sales data from the region and data from the California Energy Commission database. As a result of the review, savings for freezers decreased slightly; however, the measure life was extended from 20 years to 22 years. Freezers remain cost effective.

Due to the lower savings attributed to clothes washers, the program's overall administrative costs per kWh increased from $0.118 to $0.342 per kWh. As a result, two refrigerator measures are shown to have a TRC of 0.99. Idaho Power expects to incur lower administrative costs in 2013 once clothes washers are removed from the program, which will increase the cost-effectiveness of the measures within the program. There were no changes to the savings assumptions that drive the cost-effectiveness of refrigerators 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 avenue for marketing the program. Ninety-one percent of the responses indicated customers learned about the incentive program through salespeople. Three percent learned from in-store materials (brochures); 3 percent from one of two Idaho Power bill inserts sent to all residential customers; and 3 percent from the Idaho Power website, newspaper/radio, or referral.

A customer satisfaction survey is scheduled for the Home Products Program in 2013.

2013 Strategies

Due to changes in the baseline threshold used to calculate energy savings, clothes washers will be discontinued, effective March 31, 2013. On February 15, 2013, Idaho Power filed Oregon Advice No. 13-03 with the Public Utility Commission of Oregon (OPUC) to remove clothes washers from the list of eligible appliances offered to Oregon customers through the Home Products Program. With the removal of the clothes washer incentives, several methods will be used to notify customers. Letters were mailed to all retailers in January 2013 to alert them of the changes. New table tents were created for distribution to all retailers in early February for display. These will inform customers of the removal of the clothes washer incentive and that they need to purchase their clothes washer before March 31, 2013, to qualify for the incentive. To announce the changes to the program, the Idaho Power website home page will be updated for February and March and an online advertising campaign will target potential purchasers. Idaho Power staff will visit retailers during February and March to discuss the changes and answer questions. Idaho Power will continually review potential products for addition to the program during 2013 and beyond.

The marketing strategy for 2013 will remain similar to 2012, with only minimal adjustments and updates as needed. Bill stuffers, in-store brochures, hang-tags, and clings will be the primary marketing avenues. Online banner advertisements and keyword search terms will be added as a new media effort. Idaho Power will research if company billboards would be effective for the program. As a result of the removal of clothes washers, new brochures will be created and distributed to all retailers before April 1, 2013.

The company expects participation for 2013 to decrease significantly with the removal of clothes washers from the list of eligible products. In 2012, clothes washers accounted for more than half of applications received. In 2013, Idaho Power will explore transitioning the light fixtures and showerheads to a more comprehensive retailer markdown program and explore additional product categories for this type of program model.

Oregon Residential Weatherization

	2012	2011
Participation and Savings		
Participants (homes)	5	8
Energy Savings (kWh)	11,985	21,908
Demand Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$0	$0
Oregon Energy Efficiency Rider	$4,051	$6,690
Idaho Power Funds	$465	$1,236
Total Program Costs—All Sources	$4,516	$7,926
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.022	$0.021
Total Resource Benefit/Cost Ratio	$0.056	$0.027
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	3.88	
Total Resource Benefit/Cost Ratio	1.55	
Program Characteristics		
Program Jurisdiction	Oregon	
Program Inception	1980	

Description

Idaho Power offers free energy audits for electrically heated customer homes within the Oregon service area. This is a statutory program 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.

2012 Activities

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

Idaho Power issued five rebates totaling $1,722 for 11,985 kWh savings. All rebates and related savings were attributed to the addition of new windows, ceiling insulation, and floor insulation. There were no loans made through this program during 2012.

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.

Five projects were completed under this program in 2012. Projects consisted of increasing attic and floor insulation and putting in new windows. The projects combined for an annual energy savings of 11,985 kWh at a levelized TRC per kWh of 5.6 cents over the 30-year measure life as defined by the Oregon Schedule 78. The CEL for insulation (30-year measure life) is $1.09 per annual kWh saved and $0.95 per annual kWh for new windows (25-year measure life) is. Since the actual levelized cost of energy savings for the 2012 projects was 3.4 cents from the TRC perspective, these projects are considered cost effective.

2013 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 rebate and loan applications.

Rebate Advantage

	2012	2011
Participation and Savings		
Participants (homes)	35	25
Energy Savings (kWh)	187,108	159,325
Demand Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$34,926	$59,241
Oregon Energy Efficiency Rider	$2,316	$4,228
Idaho Power Funds	$0	$0
Total Program Costs—All Sources	$37,241	$63,469
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.012	$0.024
Total Resource Benefit/Cost Ratio	$0.024	$0.033
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	8.71	
Total Resource Benefit/Cost Ratio	3.87	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2003	

Description

Idaho Power residential customers who purchase a new, all-electric ENERGY STAR® qualified manufactured home in 2012 and sited it in Idaho Power's service area were eligible for a $500 rebate through the Rebate Advantage program. Salespersons received a $100 incentive for each qualified home they sold.

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.

The Rebate Advantage program helps Idaho Power customers with the initial costs associated with purchasing a new, energy-efficient ENERGY STAR qualified manufactured home. This enables the homebuyer to enjoy the long-term benefit of lower electric bills and greater comfort provided by these homes. In addition, Idaho Power encourages sales consultants to discuss energy efficiency with their customers during the sales process.

2012 Activities

During 2012, Idaho Power paid 35 incentives on new manufactured homes, which accounted for 187,108 annual kWh savings. Despite three dealerships closing in 2012, the number of incentives processed increased by 40 percent over 2011.

Marketing strategies used in 2012 included maintaining the Google AdWords campaign, a billboard campaign, and one bill insert. The program specialist, marketing specialist, and Idaho Power field staff visited numerous dealerships throughout the company's service area over the summer to answer any questions and notify them of a planned incentive increase, effective 2013.

Idaho Power continued to support dealerships in 2012 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 2012. The measure is currently under review by the RTF and will be updated in 2013. For details, see *Supplement 1: Cost-Effectiveness*.

2013 Strategies

The Rebate Advantage incentive amounts for customers and salespeople will double in 2013. Customers who purchase an all-electric ENERGY STAR manufactured home will receive a $1,000 incentive. Salespersons will receive a $200 incentive for each qualified home they sell. This new rebate offsets the cost of the ENERGY STAR enhancements and is designed to offset a greater portion of the cost differential between these homes and non-ENERGY STAR homes. This program remains cost effective with the increased incentive levels.

In early 2013, a bill insert will be mailed to all residential customers to inform them of the change in the incentive amount. The new posters and brochures that were created and distributed in 2012 to all local dealerships to promote the increase in the incentive amount will continue to be used throughout 2013. Idaho Power continues to explore new marketing methods and promote the program using internal resources and externally 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 local Idaho Power staff with the local dealers reemphasizes the importance of promoting the benefits of ENERGY STAR qualified homes and products.

Idaho Power will continue to examine additional marketing strategies directed at the end consumer. These will include the continuation and revision, as needed, of the Google AdWords campaign and additional bill inserts sent to all residential customers. This strategy may be shared with the Home Products Program, as done in 2012. Strategies may include other 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 show interest in having the banner displayed at their dealership. In addition, new research from the upcoming *2013 Manufactured Home Market Facts Report* by Foremost® Insurance will be used to determine the best marketing strategies.

See ya later, refrigerator®

	2012	2011
Participation and Savings		
Participants (refrigerators/freezers)	3,176	3,449
Energy Savings (kWh)	1,576,426	1,712,423
Demand Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$596,167	$634,967
Oregon Energy Efficiency Rider	$16,979	$19,426
Idaho Power Funds	$0	$0
Total Program Costs—All Sources	$613,146	$654,393
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.046	$0.046
Total Resource Benefit/Cost Ratio	$0.046	$0.046
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	1.70	
Total Resource Benefit/Cost Ratio	1.70	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2009	

Description

The See ya later, refrigerator® program acquires energy savings through the removal of qualified refrigerators and stand-alone freezers in residential homes throughout Idaho Power's service area. Each application is screened upon enrollment by Idaho Power to determine whether each 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.

2012 Activities

In July 2012, the See ya later, refrigerator® program reached a milestone when it picked up its 10,000th unit. Idaho Power invited local media to watch the unit get unloaded from the collection truck to a trailer used to haul units to the recycling facility in Salt Lake City, Utah. The story was picked up by several television stations.

Idaho Power continued to offer See ya later, refrigerator® participants, upon enrollment, 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. The program helps customers who need help paying for energy

services, including fuel bills and furnace repairs. In 2012, 2.7 percent of Idaho Power's See ya later, refrigerator® participants chose this option, raising $2,610 for Project Share.

In 2012, program staff visited the JACO recycling facility in Salt Lake City. According to the contract terms, JACO is responsible for dismantling and properly recycling or disposing of parts of each unit. This trip confirmed the contract conditions were being met.

The program continued to use a variety of marketing channels including bill inserts, direct mail, Valpak®, and promotion at events. In 2012, the program tested a new marketing avenue, cinema advertising at a theater in Nampa, ID. Idaho Power developed a 30-second spot that aired 5,824 times.

The See ya later, refrigerator® program was one of three programs that sponsored the Idaho Stampede's Green Week games. The promotion included highlighting Idaho Power's energy efficiency programs at two home games through announcements, posters, and staffed displays providing attendees the opportunity to talk with Idaho Power employees about energy efficiency. As part of the promotion, Idaho Power ran a 30-second PSA regarding See ya later, refrigerator®, which aired at both home games. Idaho Power posted the PSA to its website and YouTube.

The program also tested different types of direct-mail in 2012. In January and April, letters were sent to customers encouraging enrollment in the program. In June, a magnet mailer was sent. All mailings used market segmentation to create the mailing list. In the April and June mailings, the lists were further refined using total energy use and length-of-time as customers. By evaluating energy use, homes with extremely low use (and therefore unlikely to have a secondary appliance) were removed. By evaluating length-of-time as customer, the mailing targeted those customers identified by market research as more likely to participate in this program.

Cost-Effectiveness

No changes occurred to the assumptions that drive the cost-effectiveness of the two measures that are part of this program, which include the decommissioning of secondary freezers and refrigerators. All cost-effective analyses are based on the RTF's approval decision dated July 2010. Both program measures remained cost effective in 2012.

Refrigerator and freezer recycling measures were reviewed by the RTF during the year as part of the comprehensive review of most residential measures and RTF guideline updates. Savings and measure-life estimates were updated by the RTF late in 2012 and will be included in the claimed savings in 2013. For details, see *Supplement 1: Cost-Effectiveness*.

Customer Satisfaction and Evaluations

In 2012, Idaho Power considered the recommendations provided by the 2011 process evaluation conducted for the program by ADM. The evaluation included two recommendations. The first recommendation was to continue researching "existing retailer involvement in the program." Idaho Power continues to track referrals through retailers. The goal of the program is to collect secondary units and remove them from customer homes. Energy savings are maximized when the unit is removed and not replaced. In 2012, 67 percent of participants that reported hearing about the program through retailers also indicated they intended to replace the unit. This is compared to 49 percent of all program participants that indicated they intended to replace the unit. Since retailer referrals have a higher replacement rate, resulting in lower energy savings, marketing through retailers is not a preferred approach at this time.

The second recommendation was to monitor customer understanding of program requirements. Anecdotal comments in the evaluation suggested some participants may not always understand the purpose of the program or eligibility requirements. Idaho Power continues to include major program requirements on its marketing materials to enhance customers' understanding of program parameters. Idaho Power also emphasizes the energy-saving benefits of the program on its marketing materials. In addition, JACO's call center and online enrollment process include screening to ensure program requirements are met.

Idaho Power contracted with ADM to conduct an impact evaluation of 2011 savings results. ADM noted the program appears to be running smoothly with an ex-post realization rate of 95 percent as compared to ex-ante estimates.

The ADM report also indicated the JACO screening process is mostly preventing ineligible units from entering the program. Also, the current RTF-approved unit energy savings (UES) values were correctly applied as ex-ante estimates, and the parameters supporting those values appear applicable to the Idaho Power program.

ADM recommended Idaho Power continue to actively monitor the RTF UES list of measures for deemed-savings updates since, although appliance decommissioning measures are RTF approved, they were listed as "under review" at the time of the publication of the evaluation. These measures are subject to change as updates to the estimation procedures and/or data sources are made. A copy of the complete report is included in *Supplement 2: Evaluation*.

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 2012 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-seven percent of the units were secondary, 28 percent were primary, and 14 percent were unknown. This shows slight improvement in the collection of secondary units over 2011. The average vintage of units collected was 1986, with 57 percent of the units manufactured from 1965 to 1990, generally the least efficient years of manufacture. In 2011, 64 percent of units were of this vintage, suggesting the program is still collecting older units.

The program reclaims or recycles up to 95 percent of the components of each unit collected. In 2012, this translated into over 417,676 pounds of materials. Reclaimed materials may include oils or refrigerants that can be distilled, then reused.

JACO and Idaho Power also track data related to the marketing effectiveness of the program. Results of customer tracking information indicate 49 percent of customers reported learning of the program through bill inserts that ran in February, May, August, and October 2012. A portion of these customers reporting bill inserts may refer to the article that appeared in the *Customer Connection* newsletter in the September bill. Eighteen percent of customers reported learning of the program through a friend or neighbor. Other word-of-mouth activities, such as events, account for an additional one percent of signups.

In 2012, direct-mail was used three times and resulted in 6 percent of the enrollments. Direct-mail is sent to a subset of customers. Idaho Power market-segmentation data and national research show participants in utility refrigerator recycling programs are likely to have common characteristics, including older, empty-nesters, smaller households, homeowners, single-family homes, and higher

incomes. Nielsen's PRIZM segmentation software was used to identify customers with these characteristics. In addition to the segmentation software, two other criteria were applied to list: energy use and length of time in the home. As older refrigerators can use up to 1,400 kWh per year, homes with very low energy use were considered unlikely to have a second unit and removed from the list. Second, the length of time in the home may correlate to age. As likely participants are older, the length of time in the home was applied on top of the segmentation criteria.

Although appliance retailers also refer customers to the program, Idaho Power does not pursue this marketing channel. 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.

Newspaper advertisements comprise 3 percent of enrollments. Newspaper advertisements ran one to two times per month for seven months in regional publications throughout the Idaho Power service area. Eighty-one percent of customers who enrolled used the toll-free telephone number, and 19 percent used the online enrollment form. Idaho Power uses the customer information that JACO collects and the surveys from Idaho Power evaluations to target future marketing efforts and increase the effectiveness of marketing while reducing the cost.

Figure 7 indicates information sources and the percentage of customers reporting hearing about the program through particular sources. The Other category includes sources such as community event, repeat customer, truck advertisement, and unknown sources.

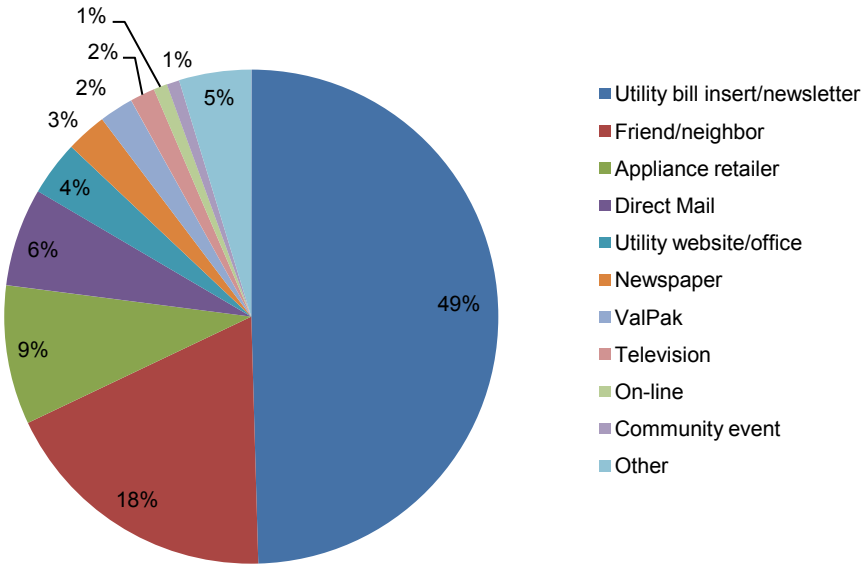

Figure 7. How customers heard about See ya later, refrigerator®

2013 Strategies

Idaho Power plans to continue implementing the program and managing the contract with JACO.

The marketing plan for 2013 includes a continued focus on a variety of channels, including bill inserts, newspaper advertisements, and customer newsletters. Digital media pay-per-click advertisements will be

on Google all year. The company will continue promotions at energy efficiency and community outreach events and on the Idaho Power website. A program process evaluation conducted by ADM in 2011 indicated that 52 percent of program participants reported convenience was the aspect of the program that provided them the most value. Therefore, new messaging will be developed and tested with a group of Idaho Power customers, focusing on the convenience aspect of the program as a motivation.

Weatherization Assistance for Qualified Customers

	2012	2011
Participation and Savings		
Participants (homes/non-profits)	238	287
Energy Savings (kWh)	648,304	2,783,648
Demand Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$0	$0
Oregon Energy Efficiency Rider	$0	$0
Idaho Power Funds	$1,370,141	$1,324,415
Total Program Costs—All Sources	$1,370,141	$1,324,415
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.129	$0.029
Total Resource Benefit/Cost Ratio	$0.172	$0.042
Program Life Benefit/Cost Ratios[a]		
Utility Benefit/Cost Ratio	4.39	
Total Resource Benefit/Cost Ratio	2.84	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	1989	

[a] The 2012 one-year B/C ratios are 0.84 for the UC and 0.71 for the TRC.

Description

The WAQC program provides funding to install weatherization measures in qualified owner-occupied and rental homes that are electrically heated. In 2012, 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 Community Action Partnership (CAP) agencies to administer the WAQC program in its service area.

WAQC is modeled after the US Department of Energy (DOE) Weatherization Program. The DOE program is managed through Health and Human Services offices in Idaho and by the Oregon Housing and Community Services in Oregon. While Idaho Power funds the WAQC program, CAP agencies in Idaho Power's service area serve as the administrators of the WAQC program. Federal funds are allocated to the Idaho Department of Health and Welfare (IDHW) and Oregon Housing and Community Services, then to CAP agencies based on US Census data of qualifying household incomes within each CAP agency's geographic area. The CAP agencies oversee local weatherization crews and contractors, providing services and measures that improve energy efficiency of the homes. WAQC funding allows these state agencies to leverage their federal weatherization dollars and serve more residents 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 CFLs. The Idaho Weatherization Assistance Program calculates savings with the EA5 energy audit program (EA5). Idaho implemented the upgrade from the EA4 energy audit program (EA4) to the EA5 in September 2011. By January 2012, all agencies began using the EA5 to report savings. Consistent with the Idaho Weatherization Assistance Program, 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-savings 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 2011 Annual Report*, April 1, 2012, located in *Supplement 2: Evaluation*.

2012 Activities

During 2012, CAP agencies weatherized 224 electrically heated homes in Idaho and 10 in Oregon, totaling 234 weatherized homes. Four Idaho buildings housing non-profit organizations that serve special-needs populations were weatherized in 2012.

On February 15, 2012, IPUC staff filed Case No. GNR-E-12-01, Cost-Effectiveness and Funding of Low Income Weatherization Programs. As part of this case, IPUC staff sponsored workshops from March 19 to 20, 2012, to discuss investor-owned utility weatherization programs. Also discussed at the workshops was the need for an appropriate funding level for low-income weatherization programs and an overall program design. IPUC staff filed a report on October 23, 2013, providing recommendations on funding, cost-effectiveness, and the low-income energy conservation education programs. Notice of the IPUC decision meeting on January 28, 2013, reports that the IPUC took this case into private deliberation, and Idaho Power is awaiting an order.

Cost-Effectiveness

In 2012, D&R International, Ltd., conducted an impact evaluation under contract with Idaho Power. This study resulted in significantly lower realized energy savings for the WAQC program, which led to lower cost-effectiveness ratios in 2012 as compared to 2011. For this report's cost-effectiveness calculations, the company used D&R International's average annual energy savings of 2,684 kWh per home that resulted from the billing analysis of 2011 weatherized homes. This is in contrast to an average of 9,103-kWh annual savings as reported by the EA4 in 2011. Since the D&R International report did not give a per-unit savings amount for non-profit building weatherized under the WAQC program, these four project savings were adjusted by applying the overall program 29-percent realization rate from the evaluation. Even though the WAQC program used the EA5 in 2012, the company believes the average annual saving per home estimate provided by D&R International is applicable because the

weatherization activities have not changed and the reported savings from the EA5 are similar to the EA4. The company also adopted the recommendations included in the IPUC staff's report from Case No. GNR-E-12-01 for the cost-effectiveness calculations for the WAQC program when possible. The results of this cost-effective analysis showed a TRC ratio of 0.71 and a UC ratio of 0.84. The details of the cost-effectiveness calculations are included in *Supplement 1: Cost Effectiveness*.

Customer Satisfaction and Evaluations

Idaho Power used independent third-party verification companies across its service area to randomly check 5 percent of the weatherization jobs submitted for payment by the program. These QA inspectors verify installed measures in homes of participating customers, as well as discuss the program with these customers. Home verifiers visited 39 homes for feedback about the program. When asked how much customers learned about saving electricity, 26 answered they learned "a lot" or "some." When asked about how many ways they tried to save electricity, 29 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, Community Action Partnership Association of Idaho, Inc. (CAPAI), and the IDHW reviewing homes weatherized by each of the CAP agencies. Results show that 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, as well as paperwork and billing audits and show that the Idaho State Weatherization Assistance Program is in compliance with DOE standards.

Idaho Power contracted with D&R International to conduct an impact evaluation of 2011 savings results and to estimate the usefulness of the DOE-approved EA4 calculation methodology, as used in 2011, for ex-ante savings estimates. D&R International used the results of billing regression models and savings outputs from EA4 to provide ex-post savings estimates resulting in a 29-percent savings realization rate as compared to ex-ante estimates.

D&R International noted in the final report that EA4, as it was implemented for this program, over-estimates and does not provide an accurate prediction of energy savings as EA4 does not rank multiple measures and focuses on heating load while not calculating cooling load. The report also indicated there are no savings during the summer months due to the added electrical load created by the installation of heat pumps, which provide added cooling load during this time.

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, the duct system, and building repairs. D&R International also recommends improving EA5 using bin weather data rather than straight heating degree day methodology. A copy of the complete report is included in *Supplement 2: Evaluation*.

2013 Strategies

In 2013, Idaho Power plans to issue an RFP to conduct research and analysis on the current audit program, EA5, used by the CAP agencies to administer the WAQC program. The company hopes to compare the savings estimated by the EA5 to the results from other residential and commercial audit tools. Idaho Power will also require the contractor to compare the modeled savings estimates to the deemed savings for weatherization measures as determined by the RTF and other reliable sources. This research, along with the pending order in the GNR-E-12-01 case from the IPUC, will help

determine future modifications to the company's low-income weatherization programs. In 2013, Idaho Power also plans to conduct a third-party process evaluation of the WAQC program.

The company will continue its involvement with the State of Idaho's Policy Advisory Council that serves as an oversight group for weatherization activities in Idaho. Through this forum, Idaho Power participates in the weatherization policy for the State of Idaho. The council will continue to review state grant applications.

Idaho Power plans to selectively market WAQC throughout 2013. 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. The Idaho Power web page for WAQC will be updated with new graphics and expanded copy. Marketing for this program is conducted in cooperation with weatherization managers to ensure a manageable response level at the agencies.

Weatherization Solutions for Eligible Customers

	2012	2011
Participation and Savings		
Participants (homes)	141	117
Energy Savings (kWh)	257,466	1,141,194
Demand Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$1,048,461	$774,254
Oregon Energy Efficiency Rider	$0	$(2,306)
Idaho Power Funds	$22,094	$16,200
Total Program Costs—All Sources	$1,070,556	$788,148
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.254	$0.042
Total Resource Benefit/Cost Ratio	$0.254	$0.042
Program Life Benefit/Cost Ratios[a]		
Utility Benefit/Cost Ratio	1.47	
Total Resource Benefit/Cost Ratio	1.47	
Program Characteristics		
Program Jurisdiction	Idaho	
Program Inception	2008	

[a] The 2012 one-year B/C ratios are 0.43 for the UC and 0.47 for the TRC.

Description

Weatherization Solutions for Eligible Customers is an energy efficiency program designed to serve Idaho Power residential customers who are slightly above poverty level and, therefore, do not financially qualify for the company's weatherization assistance program, WAQC. 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 a SIR of 1 or higher. The amount spent on each home is limited to an annual average per home. Homes considered for this program are electrically heated and either owned or rented. If rented, the landlord's permission is needed, along with an agreement to maintain the unit's current rent for a minimum of one year.

Idaho customers eligible for this program earn income just above the federal poverty level. They typically do not have expendable income to participate in other residential energy efficiency programs, and they live in similar housing as WAQC customers.

2012 Activities

The 2012 program ended the year with 141 weatherization jobs completed. Qualifying customers for the year earned an income between 175 percent and 250 percent of the federal poverty level. The program served customers in Idaho Power's Southern, Western, Eastern, and Capital service areas.

Table 7 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 7. 2012 weatherization solutions financial breakdown

Contractor	Number of Jobs	Production Costs	Average Job Cost*	Administrative Payment to Contractor	Total Payment
Energy Zone	63	$ 454,545	$ 7,215	$ 45,455	$ 500,000
Home Energy Management	41	272,900	6,656	27,290	300,190
Power Savers	20	106,461	5,323	10,646	117,107
Savings Around Power	17	87,450	5,144	8,745	96,195
Total	**141**	**$ 921,356**	**$ 6,534**	**$ 92,136**	**$ 1,013,492**

* 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 2012. All four contractors advertised the program in their regions with program flyers and door hangers 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 qualify. Word of mouth continued to be an effective marketing tool for the program in 2012. Several articles about the program were featured in various local publications and at an Idaho Power booth at weatherization conferences.

Cost-Effectiveness

In 2012, D&R International, Ltd., conducted an impact evaluation of the Weatherization Solutions for Eligible Customers program under contract with Idaho Power. This study resulted in significantly lower energy savings estimates for this program, which led to lower cost-effectiveness ratios in 2012 as compared to 2011. For this report's cost-effectiveness calculations, the company used D&R International's average annual energy savings of 1,826 kWh per home that resulted from the billing analysis of 2011 weatherized homes. This is in contrast to an average of 9,754-kWh annual savings per home as reported by the EA4 in 2011. This is a realization rate of 19 percent of the savings reported under the EA4. The company also adopted the recommendations included in the IPUC staff's report from Case No. GNR-E-12-01 for the cost-effectiveness calculations for the Weatherization Solutions for Eligible Customers program when possible. The results of this cost-effective analysis showed a TRC ratio of 0.47 and a UC ratio of 0.43. Since the evaluation did not calculate an average measure level saving or realization rate by measure for this report, Idaho Power is not including measure level cost-effectiveness in this report, a change from previous reports. The details of the cost-effectiveness calculations are included in *Supplement 1: Cost-Effectiveness*.

Customer Satisfaction and Evaluations

In 2012, the program contractors conducted a customer satisfaction survey. Questionnaires were given to customers after the contractor completed the job. Of the 141 participants, 89 customers provided written feedback about the work done and about energy conservation in their home. Each response complimented the work crew and expressed thanks for the program. These contractor surveys include high-level questions and are administered by the contractors, not by Idaho Power.

Idaho Power hired independent third-party verification companies across its service area to randomly check weatherization jobs submitted for payment by the program. These QA inspectors verify installed measures in homes of participating customers and discuss the program with these customers. Of the 141 jobs completed in 2012, verifiers visited 25 homes for feedback about the program. When these 25 customers were asked how much they learned about saving electricity during weatherization, 16 answered from the choices offered that they learned "a lot" or "some." When asked about how many ways they tried to save electricity in their home, 21 responded "a lot" or "some." This customer

feedback is collected as a part of the actual job verification. The documents containing individual customer information include these two questions.

Idaho Power contracted with D&R International to conduct an impact evaluation of 2011 savings results and to estimate the usefulness of the DOE-approved EA4 calculation methodology currently used for ex-ante savings estimates. D&R International used the results of billing regression models and savings outputs from EA4 to provide ex-post savings estimates, resulting in a 19-percent savings realization rate as compared to ex-ante estimates.

D&R International noted in the final report that EA4, as it was implemented for this program, over-estimates and does not provide an accurate prediction of energy savings as EA4 does not rank multiple measures and focuses on heating load and does not calculate cooling load. The report also indicated there are no savings during the summer months due to the added electrical load created by the installation of heat pumps, which provide added cooling load during this time.

D&R International recommended converting to the use of DOE-approved EA5, which ranks heating measures and duct improvements by the SIR and evaluates architectural measures prior to evaluating improvements to heating, the duct system, and building repairs. D&R International also recommends improving EA5 using bin weather data rather than straight heating degree day methodology. A copy of the complete report is included in *Supplement 2: Evaluation*.

2013 Strategies

In 2013, Idaho Power plans to issue an RFP to conduct research and analysis on the current audit program, EA5, used by the contractors to administer the Weatherization Solutions for Eligible Customers program. The company hopes to compare the saving estimated by the EA5 to the results from other residential and commercial audit tools. Idaho Power also will require the contractor to determine per-measure savings for this program and compare them to the deemed savings for weatherization measures as determined by the RTF and other reliable sources. This research, along with the pending order in Case No. GNR-E-12-01 from the IPUC, will help determine future modifications to the company's low-income weatherization programs. Additionally, Idaho Power plans to conduct a third-party process evaluation of the Weatherization Solutions for Eligible Customers program in 2013.

In 2013, Idaho Power plans to offer this program to Idaho Power customers in the Southern, Eastern, Western, and Capital regions. Weatherization Solutions for Eligible Customers anticipates weatherizing 165 homes through the program in 2013.

Home Energy Management, LLC (HEM, LLC) is under contract to weatherize approximately 40 homes in Idaho Power's Southern region; Energy Zone, LLC is under contract to weatherize approximately 50 homes in Idaho Power's Western region; and Savings Around Power is contracted to weatherize approximately 25 homes in the Eastern region. Power Savers, serving Idaho Power's Capital region, is under contract to weatherize approximately 50 homes.

An annual allowable average cost of $7,200 per home will be used again in 2013. Contractors will be paid 10 percent of the production costs per home as an administrative fee. All measures that provide energy savings will meet the minimum SIR when applied through the state-approved energy audit. Each total job will also meet the minimum SIR requirements.

Eligible customers will include Idaho Power customers who heat their homes electrically and earn an income between 175 percent and 250 percent of the federal poverty level. Customers who are either

purchasing or renting their homes may be eligible. As in 2011 and 2012, the identification of potential participants will be made through several means. Energy Assistance/LIHEAP applicants at CAP agencies who do not meet WAQC income qualifications are sent denial letters. Program contractors will use this list of denied customers at CAP agencies to market the Weatherization Solutions for Eligible Customers program. Contractors will distribute flyers and door hangers explaining the program and qualifying guidelines to customers heating their homes electrically.

Idaho Power's plans to market the Weatherization Solutions for Eligible Customers program throughout 2013. Direct-mail letters proved successful in 2012, and these targeted mailings will continue along with bill inserts and online advertisements. The web page for the program will be updated with new graphics and expanded copy. Marketing for this program is conducted in close cooperation with contractors to ensure the marketing activity is done at a level each contractor is able to service in a timely manner.

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COMMERCIAL/INDUSTRIAL SECTOR OVERVIEW

Description

Idaho Power's commercial and industrial sector consists of over 65,857 customers. In 2012, the commercial sector's number of new customers increased by 683, an increase of 1 percent over 2011. The energy usage of commercial customers varies from a few kWh each month to several hundred thousand kWh per month. The commercial sector represents 27.4 percent of Idaho Power's total electricity usage.

The industrial customers and special-contract sector are Idaho Power's largest individual energy consumers. There are approximately 116 industrial customers. These customers can use millions of kWh a month and account for 22.2 percent of Idaho Power's total electricity usage.

The Custom Efficiency program continued to represent the highest total energy savings among commercial and industrial programs in 2012, with a total savings of 54,253 MWh. The Building Efficiency program saw the highest percentage increase among commercial and industrial programs, with annual savings increasing by 105 percent over 2011. Combined, the programs experienced a 4.54 percent increase in the number of completed projects over 2012. Overall, energy savings decreased less than 1 percent compared to 2011. Table 8 shows a summary of savings and expenses from the three commercial and industrial energy efficiency programs and one demand response program.

Programs

Table 8. 2012 commercial/industrial program summary

		Total Cost		Savings	
Program	**Participants**	**Utility**	**Resource**	**Annual Energy (kWh)**	**Peak Demand (MW)**
Demand Response					
FlexPeak Management	102 sites	$ 3,009,822	$ 3,009,822	n/a	52.8
Total		**$ 3,009,822**	**$ 3,009,822**		**52.8**
Energy Efficiency					
Building Efficiency	84 projects	$ 1,592,572	$ 8,204,883	20,450,037	2.3
Easy Upgrades	1,838 projects	5,349,753	9,245,297	41,568,672	4.7
Custom Efficiency	126 projects	7,092,581	12,975,629	54,253,106	7.6
Total		**$ 14,034,906**	**$ 30,425,809**	**116,271,815**	**14.6**

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

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, the 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. This program continues to be successful, incorporating qualified energy-saving improvements for lighting, cooling, building shells, and energy control options. Participants in the Easy Upgrades program can receive incentives of up to $100,000 per site per year for approved, completed projects. There are no incentive caps on Building Efficiency- and Custom Efficiency-approved and completed projects. 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 Oregon Commercial Audits program to medium and small commercial customers.

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.

2012 proved to be another challenging, rewarding, and successful year for Idaho Power's commercial and industrial energy efficiency programs. Custom Efficiency awarded the single largest incentive in the program's history to a chilled water economizer project designed to save approximately 10 million kWh annually. Building Efficiency experienced substantial growth in both the number of completed projects and energy savings. Easy Upgrades also experienced growth in both the number of completed projects and energy savings. These are remarkable accomplishments considering the economic environment Idaho Power's business customers continue to navigate. 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, and most importantly, Idaho Power customers. Training and education continued to be an important aspect of the company's programs in 2012. Trade ally meetings included training on lighting design and technologies. Custom Efficiency continued to offer a host of industrial training sessions that were well attended. Finally, Building Efficiency sponsored a number of outreach training sessions conducted by the IDL.

The Green Rewind offering is available to Idaho Power's agricultural, commercial, and industrial customers. The sectors' combined 42 Green Rewind motors achieved a total annual savings of 84,193 kWh in 2012, with 19 commercial/industrial sector motors contributing 54,154 kWh per year and 23 irrigation sector motors contributing 30,039 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, eight service centers have signed on as Green Motors Practice Group (GMPG) members. The GMPG also will 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 between 15 and 5,000 hp for industrial uses and 25 to 5,000 hp for 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.

In 2012, Idaho Power entered into the third year of a three-year contract with the IDL to meet the following objectives:

- Educate architects, engineers, and other design and construction professionals about energy efficiency topics through an in-firm summer series. This series was expanded in 2011 and 2012 to include firms outside the Treasure Valley.

- Facilitate the Idaho Building Simulation Users' Group to improve the energy efficiency-related simulation skills of local design and engineering professionals.
- Support Idaho Power employees in promoting energy efficiency and providing Idaho Power's customers with up-to-date and accurate information regarding energy efficiency technologies and best practices.
- Create a hands-on demonstration and training area for electrical contractors to learn the necessary skills to successfully install and commission daylight-harvesting lighting control systems.
- Review daylight photo-control incentives to improve the quality and performance of installed systems.
- Develop and maintain a measurement equipment tool loan library, including a web-based equipment tool loan-tracking system.
- Stimulate market awareness of energy use in buildings to promote energy efficiency by working with commercial real estate brokers or owners in the development of metrics to be used in the sale or lease of commercial property.
- Promote aggressive energy efficiency on new construction and major renovation projects in the Idaho Power service area.
- Promote improved energy efficiency in existing convenience stores in the Idaho Power service area.
- Provide measurement and verification services to investigate actual energy savings compared to computer simulation modeled savings or pre- and post-renovation/retrofit conditions.

Expanding on some of the prior year's results, the following objectives were added in 2012:

- Conduct a review of documents associated with the Building Efficiency program's application for incentives along with site inspections on a random percentage of projects to validate whether noted systems and components have been installed.
- Provide the design community with additional spreadsheet-style calculation tools to analyze the feasibility and capacity of various passive cooling design strategies (an expansion of prior climate design resource efforts.)
- Increase both the general public and design community literacy about how different classifications of commercial buildings consume energy and the metrics associated with these data.
- Investigate multi-family new construction and retrofit best practices for utility incentive programs and to investigate the potential for new program incentives.

Phase I of the Idaho Office of Energy Resources (IOER) K–12 Energy Efficiency Project for public schools in Idaho Power's service area concluded December 2012. The project invested federally provided funds into energy efficiency projects in public school buildings within Idaho Power's service

area. 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 will be used for additional cost-effective energy efficiency projects that meet current Idaho Power program requirements implemented in public school buildings within Idaho Power's service area and will be referred to as Phase II projects. The agreement will result in achieving a higher level of energy efficiency in public school buildings than either Idaho Power or the IOER could achieve with their individual programs. Phase II projects are anticipated to begin in mid-2013 and conclude in late 2014.

During the November 6 EEAG meeting, the Idaho Power commercial/industrial energy efficiency program leader discussed how the Building Efficiency program is researching expanded measure offerings for new construction and major remodel projects for multi-family dwellings. Research is being performed on the energy savings and the cost-effectiveness of various energy-savings measures that would be included in the Building Efficiency program. If the research is favorable and measures are cost effective, new measure offerings could be added to the program in 2013. EEAG was generally supportive of researching multi-family measure offerings.

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-six percent of Idaho Power's large commercial and industrial customers surveyed in 2012 for the Burke Customer Relationship survey indicated Idaho Power was meeting or exceeding their needs in offering energy efficiency programs. Fifty percent of survey respondents indicated Idaho Power was meeting or exceeding their needs with information on how to save energy or reduce their bill. Sixty-six percent of respondents indicated Idaho Power was meeting or exceeding their needs with encouraging energy efficiency with its customers. Overall, 79 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, 93 percent are "very" or "somewhat" satisfied with the program.

The results from surveying Idaho Power's small business customers indicated 42 percent of these customers said Idaho Power was meeting or exceeding their needs in offering energy efficiency programs. Fifty-one percent of survey respondents indicated Idaho Power was meeting or exceeding their needs with information on how to save energy or reduce their bill. Fifty percent of respondents indicated Idaho Power was meeting or exceeding their needs with encouraging energy efficiency with its customers. Overall, 21 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, 94 percent are "very" or "somewhat" satisfied with the program.

In 2013, Idaho Power is anticipating adding at least two new initiatives within the Custom Efficiency program. Impact evaluations conducted on Building Efficiency and Easy Upgrades will be finalized in early 2013. Program specialists will be analyzing the findings from these reports and will adjust programs as needed. Training, education, and outreach will continue to be a focus aimed at driving projects. Additionally, the company will analyze ways to improve Idaho Power programs based on customer and trade ally feedback, as well as internally driven research.

Building Efficiency

	2012	2011
Participation and Savings		
Participants (projects)	84	63
Energy Savings (kWh)	20,450,037	11,514,641
Demand Reduction (MW)	2.3	0.9
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$1,579,121	$1,277,422
Oregon Energy Efficiency Rider	$13,451	$14,003
Idaho Power Funds	$0	$0
Total Program Costs—All Sources	$1,592,572	$1,291,425
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.007	$0.010
Total Resource Benefit/Cost Ratio	$0.036	$0.026
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	6.50	
Total Resource Benefit/Cost Ratio	2.56	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2004	

Description

The Building Efficiency program enables customers in Idaho Power's service area to apply energy-efficient design features and technologies that would otherwise be lost opportunities for savings to their projects. The program offers a menu of measures and incentives for lighting, cooling, building shell, and control-efficiency options. Customers involved in the construction of new buildings or construction projects with significant additions, remodels, or expansions are eligible to receive incentives. 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 measures are offered through this program and include 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, a 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 to local architects, engineers, and designers. Some of this activity is coordinated and supported through NEEA's BetterBricks® program. The Building Efficiency program sponsors the biannual BetterBricks awards held in Boise. The BetterBricks awards recognize leaders whose work supports the design and operations of high-performance buildings and their commitment to energy efficiency. The Building Efficiency program also sponsors technical lunch-and-learn sessions geared to educate design

professionals and the Idaho Building Simulation Users' Group. The Idaho Building Simulation Users' Group is designed to improve the energy efficiency-related simulation skills of local design and engineering professionals.

2012 Activities

The Building Efficiency program completed 84 projects, resulting in 20,450,037 kWh in annual energy savings in Idaho. Overall, the program increased kWh savings almost 78 percent over 2011. The dramatic increase in energy savings for 2012 was impacted by some large, multi-year construction projects being completed for qualified program incentives. Examples include regional hospitals in Twin Falls and Pocatello. Additionally, design professionals have become more familiar with the program in recent years. In 2012, vinyl construction banners were produced for the first time and installed at a building site to publicly showcase the building was being "built with energy efficiency in mind."

The Building Efficiency program was last modified in 2011, although the cap of $100,000 on Idaho projects was removed in 2012. Also in 2012, an impact evaluation was completed, focus groups were held with architects and engineers, and in-depth interviews were conducted with building owners to gain feedback on the program. Based on the outcome of these activities, minor changes will be made to the program in mid-2013 once all recommendations have been evaluated thoroughly. 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.

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 2012, with 235 attendees, including architects, engineers, interior designers, and project managers. Technical training sessions were held in Boise, Twin Falls, Pocatello, Idaho Falls, and Ketchum. Topics included Integrated Design Principals, Energy Benchmarking and Energy Goal Setting, Daylight In Buildings: Schematic Design Methods, Daylighting: Getting the Details Right, Multi-Zone Demand Control Ventilation Systems, Climate Responsive Design: Tools and Methods, Advanced Envelope Construction, Radiant System Design Considerations, High-Performance Classrooms, Role-of-Life Cycle Cost Assessment in Integrated Design, Center for Advanced Energy Studies and Integrated Design, and Commissioning. The Building Efficiency program, in conjunction with the Custom Efficiency program, sponsored 12 training sessions, with 145 attendees for the Building Simulations User Group through the IDL. Additionally, Idaho Power was a sponsor of the American Institute of Architects 2030 Challenge held in Boise. The 2030 Challenge was a 10-session learning course designed to educate architects, engineers, and other design professionals on integrated design practices in new construction. Approximately 40 design professionals were enrolled in the program. The 10 sessions started in fall 2011 and concluded in spring 2012.

Additional *Success Stories* were added to the Idaho Power website in 2012, with one specific to new construction titled *Idaho Power Helps Motorcycle Parts Manufacturer Keep Jobs at Home*. Copies of the 2012 *Success Stories* are provided in *Supplement 2: Evaluation*.

Building Efficiency has teamed up with the Building Owners and Managers Association (BOMA) and NEEA to offer a Kilowatt Crackdown™ competition for office buildings over 15,000 ft^2 located in the Treasure Valley. The initial sign-up closed on December 31, 2012. Over 40 buildings signed up to participate in the year-long competition, which includes benchmarking their building in

ENERGY STAR® Portfolio Manager—an interactive energy-management tool that allows tracking and assessing of energy and water consumption—and implementing low-cost and no-cost efficiency measures in their building throughout 2013. Participating buildings have access to an energy coach, scoping audit of their building, and education opportunities. The purpose of this commercial building energy competition is to facilitate and educate businesses on wise energy use. The competition will continue through the beginning of 2014. Idaho Power is contributing marketing and technical expertise to help ensure the success of the competition. At the November 6 EEAG meeting, Idaho Power provided an update on the Kilowatt Crackdown competition in the Treasure Valley market. Idaho Power also sponsors the American Society of Architects Honor awards, the BetterBricks awards, the Smart Growth awards, and the Association of Idaho Cities Annual Conference.

At the November 6 EEAG meeting, Idaho Power also discussed the work being done regarding multi-family dwellings. Building Efficiency is researching expanded measure offerings for new construction and major remodel projects for multi-family dwellings. Research is being performed on the energy savings and cost-effectiveness of various energy-savings measures that would be included in the Building Efficiency program. If the research shows the measures are cost effective, new measure offerings could be added to the program in 2013.

Cost-Effectiveness

For 2012, the Idaho Power incentive structure remained consistent with the 2011 program.

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 for both the measure at code and at efficiency. The other method for calculating savings in the program 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. In 2012, ADM conducted an impact evaluation of the 2011 program savings. The report recommended a revision to the prescriptive formulas used to estimate the reported savings in three measures. The revised formula has been applied to the 2012 savings results. The program remains cost effective.

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 kW reduction as the unit being used. For 2012, 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*.

Customer Satisfaction and Evaluations

Idaho Power contracted with ADM to conduct an impact evaluation of 2011 savings results.
The evaluation report indicates that, overall, the Building Efficiency program does a good job ensuring rebated energy efficiency equipment efficiencies are above those mandated by applicable building code. The 2011 program savings realization rate was estimated to be 73 percent as compared to ex-ante estimates.

The report identified two areas that contributed to over 40 percent of the reduction in the ex-post savings adjustment, which included 1) errors in ex-ante prescriptive formulas used to estimate savings for some HVAC equipment and controls and 2) baseline definition issues that redefined subsets of measures as baseline equipment. Some equipment installed as upgrades were actually required as part of code.

ADM recommends 1) the revision of prescriptive formulas used to estimate savings for air-side economizers, energy-management system building controls, and demand-control ventilation; 2) making prescriptive algorithms more rigorous; 3) making each algorithm more specific to the application for which it is applicable; 4) select a larger number of HVAC controls and VFD projects for detailed application review to screen for potential code or baseline issues; and 5) update the application to include specific applications for which VFDs will not qualify for incentives. A revised version of the impact evaluation report was received after the printing of *Supplement 2: Evaluation*. These revisions do not materially change the results of the evaluation. A copy of the complete report is included in *Supplement 2: Evaluation*. A copy of the revised report is available on request.

In 2012, Idaho Power contracted with Market Decisions Corporation to provide participant focus groups with architects, engineers, and designers and to conduct phone interviews with building owners and operators to gain feedback on the Building Efficiency program. Two in-person two-hour focus groups were held with 14 architects, engineers, or designers in attendance. Ten 30-minute in-depth phone interviews were conducted with building owners and operators. Participants were asked a series of questions by a Market Decisions Corporation moderator and asked to candidly share their experience and satisfaction with the Building Efficiency program.

As a qualitative study, the following key findings only reflect the general thoughts of those that participated in the research groups and are not representative of the entire program. Overall, the research participants are “highly satisfied” with the program. Architects and engineers are familiar with all program incentives and owners are familiar with the incentives applicable to their projects. The architects and engineers typically bring the Building Efficiency program to the owner’s attention during the project’s design phase. All research participants also expressed a high level of satisfaction with the pre-application process and Idaho Power staff engagement during their projects. A copy of the report can be found in *Supplement 2: Evaluation*.

Building Efficiency continued random installation verification on 10 percent of projects in 2012. The purpose of these verifications was to confirm program guidelines and requirements were adequately facilitating participants to provide accurate and precise information with regard to energy efficiency measure installations. The IDL completed on-site field verifications on 9 of the 84 projects, which encompasses approximately 10 percent of the total completed projects in the program. Out of the nine projects verified, eight projects were installed with only minor or no discrepancies compared to how they were declared. The minor discrepancies resulted in a total increase of energy-efficient measures. Only one project was installed with less energy-efficient measures than were declared. Random project installation verification will continue in 2013.

2013 Strategies

The Building Efficiency program will make program updates in mid-2013 once the impact evaluation and focus group research has been evaluated. Research is currently being conducted on multi-family construction. The outcome of the research may lead to additional Building Efficiency offerings in the multi-family sector. A future filing with the OPUC regarding mid-2013 program changes would include the removal of the $100,000 cap on Building Efficiency projects in Oregon. The Building Efficiency

program will continue to perform random post-project verifications on a minimum of 10 percent of completed projects.

The Building Efficiency program will continue to sponsor technical training through the IDL. Technical trainings will continue to address the energy efficiency education needs of design professionals in the Boise, Pocatello, Twin Falls, and Sun Valley markets. Additionally, the program will continue to support organizations focused on promoting energy efficiency in commercial construction. Idaho Power hopes to replicate the vinyl construction banners publicly showcasing buildings as "built with energy efficiency in mind" across a number of energy-efficient buildings in the coming year. The feasibility and value of advertising in specific trade publications will be determined in 2013.

In 2013, Idaho Power plans to contract with a third-party to conduct a research project for the Building Efficiency program that will evaluate existing and new measures for the program.

Custom Efficiency Program

	2012	2011
Participation and Savings		
Participants (projects)	126	166
Energy Savings (kWh)[a]	54,253,106	67,979,157
Demand Reduction (MW)	7.6	7.8
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$923,050	$413,959
Oregon Energy Efficiency Rider	$115,866	$1,385,613
Idaho Power Funds	$6,053,665	$6,984,239[b]
Total Program Costs—All Sources	$7,092,581	$8,783,811
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.012	$0.012
Total Resource Benefit/Cost Ratio	$0.021	$0.026
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	7.48	
Total Resource Benefit/Cost Ratio	3.31	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2003	

[a] Includes kWh savings from Green Rewind.
[b] Capitalized incentive payments per IPUC Order No. 32245.

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 applications to Idaho Power for potential projects that have been identified by a third-party consultant, Idaho Power, or by the customer 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 an application and an agreement finalizing the terms and conditions of the applicant's and Idaho Power's obligations. In some cases, large, complex projects may take as long as two years to be completed. Often, Idaho Power conducts follow-up or post-inspection validation via third-party engineering firms on projects of this nature. 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.

2012 Activities

Custom Efficiency experienced another successful year in 2012. A total of 126 projects were completed by 110 customers, including four Oregon projects from four customers. Custom Efficiency awarded the single largest incentive in the program's history to a chilled water economizer project designed to save approximately 10 million kWh annually. Program energy savings decreased in 2012 by 20 percent over 2011, from 67,979 MWh to 54,253 MWh. The decrease in program energy savings was a result of several factors: 2012 was a presidential election year and customers mentioned they were hesitant to move forward with large projects until after the election was determined. This, along with general economic uncertainty, impacted the 2012 numbers. Also, the program may have reached some saturation through maturation, as nearly 90 percent of the large-power service customers have submitted an application for a project through 2012. Finally, with the high percentage of industrial customers that have completed projects in the program, deeper energy savings with be challenging to achieve.
There were 137 approved applications for active projects at the end of 2012, representing 64,034 MWh of savings. Table 9 indicates the program's 2012 annual energy savings by primary project measures.

Table 9. 2012 Custom Efficiency annual energy savings by primary project measure

Program Summary by Measure	Number of Projects	KWh Saved
Lighting	63	20,107,218
HVAC	6	11,885,602
CFL	19	5,321,048
Refrigeration	15	5,319,400
Motors	3	2,289,748
Compressed Air	4	2,228,709
Pump	2	1,425,757
Fan	9	1,380,649
VFDs	3	951,665
Green Rewind	19	54,154
Other	2	3,289,155
Total	**126**[a]	**54,253,106**

[a] Does not include Green Rewind projects.

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 reevaluated its current offerings and strengthened them where appropriate. It is anticipated, effective by the second quarter of 2013, that detailed audits will go from 50 percent reimbursement or $10,000, whichever is less, to 75 percent reimbursement or $12,500. Scoping audit details did not change in 2012.

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 service area. Additionally, Idaho Power covers the cost of each customer's subsidized attendance in the classroom-based training sessions. A total of nine technical classroom-based training sessions were completed in 2012. Four 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, VFDs,

data-center efficiency, energy management, and industrial refrigeration. A schedule of training events is posted on Idaho Power's website.

The level of attendance remained high in 2012, with 171 Idaho Power-sponsored seats filled with 146 end-use customers and various Idaho Power staff, consultants, and trade allies. Customer feedback indicated average overall satisfaction levels over 97 percent.

There were two training sessions outside of the Idaho Power service area attended by Idaho Power customers. One was a pump certification training in Eugene, Oregon, attended by two Idaho Power customers. The second was a conveyance systems training in Portland, Oregon, attended by one customer. The conveyance system training is planned to be offered within Idaho Power's service area in 2013.

Additionally, 2012 encompassed Phase II of the Webinar Pilot Plan coordinated by NEEA. Twelve webinars were presented free to all attendees. Topics included VFDs; lighting; data centers; energy-management topics, including developing an energy plan, investment analysis energy management for industrial customers, and energy auditing and troubleshooting. There were 50 Idaho Power region seats filled with end-use customers and multiple Idaho Power personnel and consultants attending the webinar recordings. Idaho Power posted the recordings and PDFs on the newly established training page on the Idaho Power website.

Figure 8 shows the number of Idaho Power-sponsored attendee seats filled as compared to other utility companies for the 2012 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 2012,* included in *Supplement 2: Evaluation*.

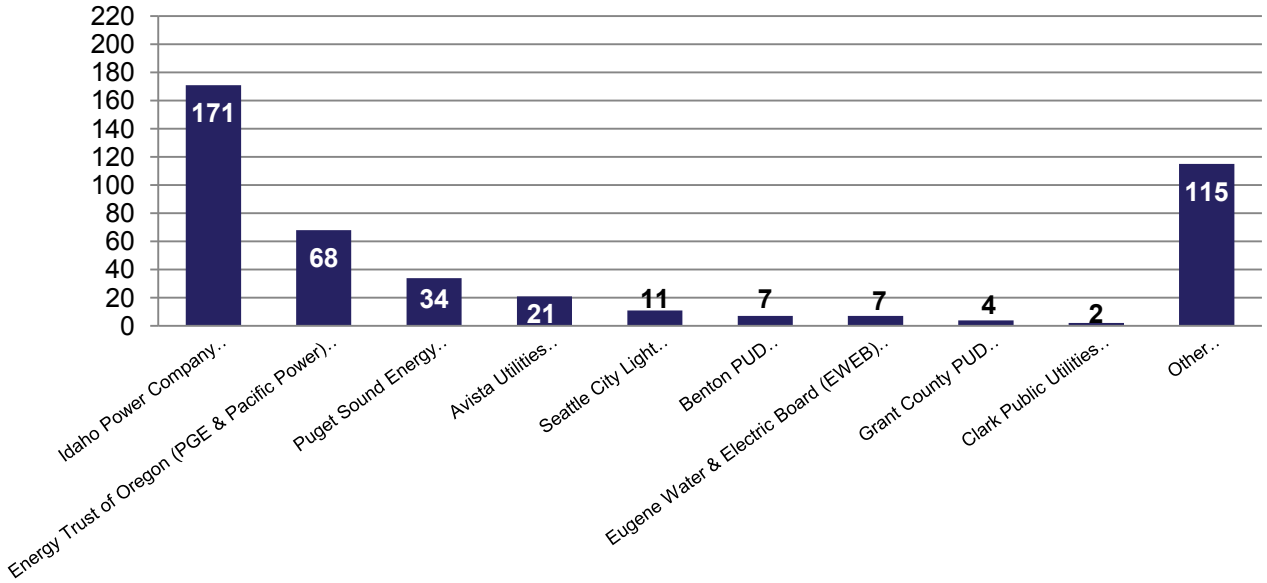

Figure 8. NEEA chart of attendees (seats filled) by attendee sponsor[3]

[3] Data source: *NEEA Regional Industrial Training Update, December 2012*.

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 and ensures an efficient use of electricity to run the motor. There were 19 Green Rewind motors in the commercial/industrial sector in 2012, contributing 54,154 kWh in annual savings.

The Custom Efficiency program has achieved a high service-area penetration rate. As stated previously, through 2012, nearly 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.

In 2012, the Idaho Power CR&EE department filled a summer internship position with a Boise State 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, and communication of 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. Another internship will be offered in summer 2013 and will involve activities similar to the 2012 internship. These internships are important mechanisms that help drive work-force development in the energy efficiency profession.

Early in 2012, the Custom Efficiency staff noticed that program energy savings were trending downward with respect to the prior few years. Several utilities in the region started to implement behavioral, strategic energy management, maintenance-related, energy coaching, resource conservation manager, and other non capital-intensive programs. Thus, Custom Efficiency engineers investigated the potential of bringing some of these offerings to Idaho Power as part of the Custom Efficiency program offerings. Three separate offerings were developed in 2012 and have been budgeted for in 2013. These include 1) Refrigeration Operator Coaching for Energy Efficiency (ROCEE), 2) Small Industrial or Custom Efficiency Express, and 3) Strategic Energy Management (SEM).

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 thoroughly reviewed to ensure energy savings are achieved. Idaho Power engineering staff or a third-party consultant calculates the energy savings. Through the verification process, end-use measure information, project photographs, and project costs are collected.

On many projects, and especially 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 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 2012, six new *Success Stories* describing 2012 projects were posted on the company's website. An example of a *Success Story* posted in 2012, titled *Idaho Power incentives help Ballard Dairy and Cheese bring the kids back to their family operation*, refers to a project Ballard Dairy and Cheese completed early in 2012. Idaho Power provided $28,604 in incentives for energy efficiency upgrades that reduced costs and is expected to save over $12,000 in annual utility bills. The owner said, "We had help from the Small Business Administration and the USDA, too, but we really couldn't have done it without Idaho Power's assistance." Copies of the 2012 *Success Stories* are provided in *Supplement 2: Evaluation*.

2013 Strategies

Both the Custom Efficiency and Easy Upgrades programs offer lighting incentives to commercial and industrial customers. In 2013, Idaho Power will continue to make program changes to lighting projects within both Custom Efficiency and Easy Upgrades to be as consistent with each program as possible. Better alignment of the incentives between the two programs will lessen program confusion and potentially increase participant satisfaction. One significant change occurring to lighting projects in 2013 will be the addition of allowing incentives for existing T-8 lighting to more efficient technology, T-8 to LED case lighting, and T-8/T-5HO to reduced wattage T-8/T-5HO.

Early in 2013, detailed audits will go from a 50 percent reimbursement or $10,000, whichever is less, to a 75 percent reimbursement or $12,500, while scoping audits will be revised to have a $3,500 maximum, up from $3,000 in 2012.

In 2013, Idaho Power will conduct customer satisfaction research on the Custom Efficiency program. The actual methodology for the research is under review. Research will be conducted late in the year.

Custom Efficiency plans to launch three new program offerings in 2013 aimed at expanding support for customers implementing energy efficiency within their facilities. The first program, tentatively titled Small Industrial or Custom Efficiency Express, is planned for launch in the third quarter of 2013. It is designed to address the smaller compressed air, pump and fan VFDs (other than HVAC and irrigation), cold storage doors, and small refrigeration projects that do not justify the study costs associated with a typical large and/or complex custom project. The program offering will be administrated by Cascade Energy Engineering and will leverage vendor relationships, incorporate simplified analysis tools, and streamline the incentive process. This offering has not officially been named yet. The second Custom Efficiency program offering anticipated for launch in March 2013 is the ROCEE. This offering will provide highly relevant hands-on energy efficiency training to key individuals whose actions have a

direct bearing on the energy performance of energy-intensive systems. Using services provided by NEEA and Cascade Energy Engineering, this offering will engage 6 to 10 large customer facilities to reduce energy associated with their refrigeration systems. The third program offering under development, SEM, will provide training and incentives to program-offering participants focused on low-cost or no-cost measures that may be more behavioral or operations and maintenance-related. Due to concerns with the persistence of savings and/or measure life, these types of projects have historically not been eligible for incentives. However, with a new SEM program offering, these concerns can be addressed appropriately, leading to an increased energy savings potential within the program. The Small Industrial, ROCEE, and SEM program offerings were described to EEAG at the November 6 meeting, resulting in favorable comments from EEAG members.

In 2013, Idaho Power plans to continue expanding the Custom Efficiency program through a number of activities and through continued development of strategic partnerships. These activities will include direct marketing of the Custom Efficiency program by Idaho Power major CRs 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 Industrial Assessment Center.

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 2013. 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.

Easy Upgrades

	2012	2011
Participation and Savings		
Participants (projects)	1,838	1,732
Energy Savings (kWh)	41,568,672	38,723,073
Demand Reduction (MW)	4.7	4.4
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$5,150,422	$4,598,019
Oregon Energy Efficiency Rider	$199,331	$121,447
Idaho Power Funds	$0	$0
Total Program Costs—All Sources	$5,349,753	$4,719,466
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.012	$0.011
Total Resource Benefit/Cost Ratio	$0.020	$0.022
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	7.57	
Total Resource Benefit/Cost Ratio	3.29	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2007	

Description

The Easy Upgrades program encourages commercial and industrial customers in Idaho and Oregon to implement energy efficiency retrofits by offering customer incentives. Eligible measures cover a variety of energy-saving opportunities in lighting, HVAC, building shells, VFDs, plug loads, and food-service equipment. Easy Upgrades is one of the company's largest programs. 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. In those cases, the customer or contractor completes the pre-approval application and submits it with the required documentation. 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.

2012 Activities

Easy Upgrades experienced strong program participation in 2012. The number of completed projects increased by 6 percent over 2011, and energy savings increased by 7 percent.

Several process-improvement activities were implemented in 2012. A written program procedures manual was developed, a non-lighting verification protocol was put in place, and work was undertaken to expand program reporting capability. To provide quicker project turnaround, and in anticipation of an increase in project applications submitted to the program, Idaho Power hired an additional contract employee to assist with application processing. Trade allies experienced and appreciated the improved turnaround.

The program conducted eight lighting trade ally program information workshops across the Idaho Power service area. In addition, three technical lighting classes were offered to trade allies and two lighting classes were given for Idaho Power CRs. Two of the three technical classes qualified for continuing education credits for eligible, licensed trade allies. For the first time, the program held technical and program information classes in McCall. The program was well received, resulting in increased project submissions from that area. A total of 362 people received lighting information/education from the Easy Upgrades program in 2012.

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.

Significant field time was spent visiting lighting trade allies throughout the Idaho Power service area. The program experienced a lull in application submissions mid-year, and trade ally outreach was used to help ameliorate that issue. Over 75 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 who were fairly new to the Easy Upgrades program. The upswing in project submissions post trade ally visits was noticeable.

An Easy Upgrades program specialist participated as a member of the NEEA Northwest Regional Strategy for Commercial Lighting Energy Efficiency development 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 will be finalized and presented to the NEEA Regional Portfolio Advisory Committee (RPAC) in January 2013. Implementation of the approved regional strategy is proposed to begin shortly thereafter.

Idaho Power continued to contract with Evergreen Consulting Group, LLC to provide ongoing lighting specialist expertise, project support, and trade ally training. Two lighting specialists provided support in trade ally outreach, as well as trade ally training. Idaho Power contracted with Honeywell, Inc., to perform non-lighting project reviews and pre- and post-project inspections.

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 pre- and post-inspections on numerous projects throughout 2012. The majority of inspections performed (1,030) were for lighting projects and consisted of 453 pre-inspections and 577 post-inspections. Seventy-three non-lighting projects received inspections, of which 19 were pre-inspections and 54 were post-inspections.

Program site inspections resulted in a variety of findings. The field conditions proved an exact match to the information on the application in many instances. For projects where discrepancies were found, incentive payments were adjusted to reflect actual field conditions, anywhere from lowering or

increasing the incentive amount to denying the project incentive altogether. Examples of lighting discrepancies included fixture count and fixture type differences. Examples of non-lighting inspections not matching the project applications included facility square-footage differences; projects not meeting program criteria, such as insulating an unconditioned space; and projects that applied for one measure, but the actual project pertains to a different measure. Program management used inspection findings to identify areas for program improvement and modification and for trade ally training opportunities.

In addition to verifying that the information provided on the incentive application matched conditions in the field, the inspections provided an opportunity for Easy Upgrades to receive feedback from customers and trade allies about their projects and the program. Customers shared how their energy-efficient upgrade benefited their business. They also appreciated the inspections and viewed them as value added. In many cases, inspections resulted in identifying additional retrofit opportunity that resulted in increased energy savings for customers and Idaho Power. A frequent comment heard from trade allies was that knowing Idaho Power had inspectors verifying projects randomly in the field increased the accuracy of project information submitted to the program.

To advance energy savings and quality lighting design, Idaho Power was one of four utilities that participated with NEEA in the regional Comprehensive Lighting Pilot. The pilot concluded in the second quarter of 2012. The purpose of the pilot was to provide valuable information regarding the program design, level of incentives, and program support needed to achieve success in securing projects with increased energy savings using a comprehensive approach. Easy Upgrades program staff await NEEA's evaluation report of the pilot expected February 2013.

Cost-Effectiveness

In 2012, Idaho Power made several small adjustments to the measure offerings in the program. The lighting tool was updated to accept electronic T-12 ballasts. An initial analysis was conducted to see if the lighting measures shown in the tool would remain cost effective with the addition of the electronic T-12 ballasts. While the savings decreased slightly, it was shown to still be cost effective based on the average input watts and hours of operation. The actual savings for each lighting project are calculated based on existing light fixtures, the replacement light fixtures, and hours of operation.

NEMA Premium Efficiency general purpose motors were removed from the program in 2012. The motors are now the federal standard. The VFD measures listed on the Motors and HVAC worksheets were moved to one new worksheet.

In the *Demand-Side Management 2011 Annual Report*, Idaho Power listed several measures it planned to remove, change, or update in 2012. The company anticipated making these changes to the non-lighting measures of the program after the completion of the impact evaluation. However, due to the timing of results from the impact evaluation, the changes to the program have been postponed to 2013. Additionally, Idaho Power is currently working with a contractor to review selected non-lighting measures in the program and to provide updated deemed values to use going forward. Currently, most deemed-savings values for non-lighting measures come from the *Demand-Side Management Potential Study* conducted by Nexant, Inc., in 2009; however, Idaho Power uses data from the RTF for a dozen measures.

As part of a comprehensive review of all deemed measures, the RTF reviewed and updated the savings for commercial ENERGY STAR® refrigerators and freezers in October 2012. Because of the change in federal efficiency standards and the very high level of ENERGY STAR market penetration, the baseline changed and the savings decreased causing the measures to no longer be cost-effective. Five incentives

for solid or glass door ENERGY STAR refrigerators and freezers of varying sizes were paid an Easy Upgrades program incentive in 2012. Idaho Power will review the measure in 2013 and determined what changes needed to be made. The remaining RTF measures have either not been updated or have not changed significantly to impact cost-effectiveness.

For current, detailed cost-effectiveness assumptions, see *Supplement 1: Cost-Effectiveness*.

Customer Satisfaction and Evaluations

An example of a satisfied customer is indicated in a *Success Story* posted on Idaho Power's website in 2012, *Upgrading its lighting gives Dominick's Quick Print whiter whites, brighter colors, and more cheerful employees*. This story describes how Joe Dominick, owner/manager/president of Dominick's Quick Print in Ontario, Oregon (and mayor of Ontario), was considering a lighting upgrade for his print shop. His electrician told him about the Idaho Power Easy Upgrades incentive program to help ease his worries about potential expenses. "I gulped when he first told me the cost," Joe said, "but when he told me that Idaho Power's incentive program could cut the cost by 65 percent, that got my attention. That made the project possible." Through Idaho Power's Easy Upgrades program, this small business owner changed out all 41 of his T-12 light fixtures to efficient T-8 fixtures, resulting in an estimated 7,586 kWh savings per year. A copy of this *Success Story* is provided in *Supplement 2: Evaluation*.

Idaho Power contracted with ADM to conduct an impact evaluation of 2011 savings results. This evaluation showed that lighting projects, which represented approximately 57 percent of 2011 savings, had a realization rate of 101 percent, while non-lighting projects had a realization rate of 33 percent. The overall realization rate was 72 percent as compared to ex-ante estimates.

The performance of VFD and HVAC controls (specifically programmable thermostat measures), accounted for approximately 80 percent of the reduction in ex-post savings due to the high volatility in savings potential and difficulty in estimating measure savings using deemed estimates.

ADM recommends the use of a partially deemed approach using a stipulated formula with site-specific inputs along with tables of deemed inputs to reduce the variance in realized savings for all VFD measure savings estimates. In addition, they recommend increasing the volume of projects receiving a detailed review of the project scope and measure applicability for both VFD and HVAC controls. A copy of the complete report is included in *Supplement 2: Evaluation*.

2013 Strategies

Several measure changes will be implemented in 2013. The program expects to offer incentives for 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 will also be offered as a way to encourage proper lighting design.

The program expected to undertake an evaluation of the non-lighting measures in 2012 similar to the extensive review of lighting measures conducted in 2011. However, with the program impact evaluation slated for mid-year 2012, Idaho Power postponed the non-lighting measure review until after receipt of the impact evaluation to incorporate its findings. Based on the results of the impact evaluation, the following recommendations were provided:

- Use custom calculations for large projects involving VFDs or for projects involving VFDs in process applications.
- Perform a thorough review of the project scope and affected equipment. This recommendation has particular applicability to the energy-management system controls and economizer measures.
- Consider applying interactive factors to lighting savings.
- Consider adopting a concurrent evaluation paradigm.

A review of these recommendations and a plan of action (or reason for no action) are targeted for completion in the first quarter of 2013.

Increased trade ally and customer training will be a focus for the program in 2013. Lighting 101 and lighting controls classes, both with continuing education credits, will be offered throughout the company service area. These classes will be offered in Salmon, a first for that area. Additionally, Easy Upgrades will secure American Institute of Architects CEUs and promote the lighting classes to the design community.

The program will expand beyond its lighting classes and offer technical training for trade allies and customers with in-house technical staff in the areas of VFDs and HVAC/controls.

Due to the success of the focused trade ally visits in 2012 and because the majority of customers participating in the program first learned about the program from trade allies, Easy Upgrades will continue to invest time and effort in trade ally visits across the Idaho Power service area. The purposes for these trade ally visits is noted in the previous 2012 Activities section.

Marketing outreach efforts targeted at small to medium customers will increase in 2013 to better inform/educate customers of the Easy Upgrades program and the various incentives offered. This marketing outreach will include a variety of strategies: direct-mail letters, articles in the company monthly customer newsletter, internet banner advertisements, articles and advertorials in local papers and/or local chamber of commerce newsletters, biannual commercial newsletters, and other tactics as identified throughout the year.

Results from the NEEA Northwest Regional Strategy for Commercial Lighting Energy Efficiency group will be evaluated, and Idaho Power will participate in the various aspects of the strategy it determines to be applicable to Idaho Power's market, program strategy, and goals.

Results from the NEEA Comprehensive Lighting Pilot evaluation will be reviewed, and opportunities for program implementation will be evaluated.

Idaho Power participated in regional discussions regarding the Standards for General Service Fluorescent Lamps protocol that became effective July 14, 2012. Due to the extensive T-12 lamp inventory and manufacturers continuing to produce T-12 lamps that meet the exception clause of the new ruling, Idaho Power will continue offering T-12 to T-8 incentives throughout 2013. Idaho Power discussed this at the July 19, 2012, EEAG meeting. Members were unanimously supportive of continuing to offer incentives for T-12 retrofit projects.

Idaho Power is aware of the RTF Lighting Protocols being drafted and will monitor these protocol outcomes to determine their applicability to the Easy Upgrades program.

In 2013, Idaho Power plans to contract with a third-party consultant to evaluate existing and new measures for the program.

FlexPeak Management

	2012	2011
Participation and Savings		
Participants (sites)	102	111
Energy Savings (kWh)	n/a	n/a
Demand Reduction (MW)	52.8	58.8
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$98,973	$1,954,850
Oregon Energy Efficiency Rider	$150,489	$102,880
Idaho Power Funds	$2,760,360	$0
Total Program Costs—All Sources	$3,009,822	$2,057,730
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	n/a	n/a
Total Resource Benefit/Cost Ratio	n/a	n/a
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	1.22	
Total Resource Benefit/Cost Ratio	1.22	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2009	

Description

FlexPeak Management is a voluntary demand response 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 peak times through customers' voluntary electrical-use reduction. 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 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 level 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.

2012 Activities

There were no changes to the program in 2012. During the first week of the program, EnerNOC committed to provide a meter-level reduction of 30.5 MW. This weekly commitment, or nomination, was comprised of 99 facility sites, of which 96 participated in the program in 2011 and 3 facility sites were added in 2012. The weekly nomination at the end of the season was 38.8 MW and comprised of 101 facility sites.

EnerNOC was contractually obligated to commit to provide at least 35 MW of reduction for each week in 2012. Their weekly commitments ranged from 29.6 MW to 38.8 MW. Four of the first five weekly commitments were below the 35 MW minimum; therefore, EnerNOC was subject to a penalty for those weeks. The remaining 10 weeks of the season they were above the 35 MW minimum and did not receive a penalty. Their commitment peaked in August at 38.8 MW.

Idaho Power called four demand response events for the FlexPeak Management program in 2012. One event occurred in June, two in July, and one in August. EnerNOC successfully exceeded the committed MW reduction in two of the four events. For the other two events, EnerNOC did not reach their committed MW reduction; performances were 91 percent and 87 percent of the committed levels. The highest hourly reduction achieved was in July at 54.2 MW (47.9 MW at the meter), which exceeded the target reduction of 35 MW for summer 2012.

Cost-Effectiveness

The B/C analysis for the FlexPeak Management program is based on a 10-year model that uses financial and DSM alternate-cost assumptions from the most recent IRP. As published in the 2011 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 has indicated a lack of near-term capacity deficits, on December 21, 2012, Idaho Power filed a proposal with the IPUC to temporarily suspend two of its demand response programs, A/C Cool Credit and Irrigation Peak Rewards, for 2013. A settlement workshop was held in February 2013 with Idaho Power and interested stakeholders to discuss plans for the 2013 cycling season. The settlement workshop led to a stipulation that was filed on February 14, 2013. FlexPeak Management was not included in the original filing due the company's contractual obligation to EnerNOC; however, Idaho Power intends to meet with all stakeholders in workshops to further discuss future changes and identify the best long-term solutions for 2014 and beyond. At the time this

report was written, Idaho Power was negotiating with EnerNOC on potential contract amendments aimed at reducing overall program costs for 2013. Because these negotiations are ongoing, the company conducted the cost-effectiveness analysis using the same cost and benefit assumptions it has in the past and used the 2013 budgeted expenses and forecasted performance, only updating 2012 actual demand reductions and costs.

Because demand response programs are analyzed over their program life, the analysis includes historical program demand reduction and expenses, as well as forecasted program activity. The program is analyzed over a 10-year program life because the 5-year contract with EnerNOC includes an option to extend the contract for another five years.

This analysis is updated annually with actual B/Cs. For the FlexPeak Management program, the benefits are based on measured demand reduction at the participant's meter. The costs include the fees paid to EnerNOC and Idaho Power administration for the program. The 2012 cost-effective analysis demonstrated the FlexPeak Management program has a TRC ratio of 1.22 from a long-term perspective and a TRC ratio of 1.21 for 2012. *Supplement 1: Cost-Effectiveness* contains details on the cost-effectiveness assumptions and data.

Customer Satisfaction and Evaluations

EnerNOC sent a post-event survey via email after the first event in June 2012 to 195 participants representing all the sites enrolled in the event. Eighteen participants responded, for a 9-percent response rate. 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 8.4. 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 8.6. 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. 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 8.3.

EnerNOC sent a second post-event survey via email after the August 2012 event to 201 participants, again representing all the sites enrolled in the event. Twenty-one participants responded, for a 10 percent response rate. 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 again 8.4. 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. 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. 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 8.1. A summary of the results is in *Supplement 2: Evaluation*. Also included in the supplement is the *FlexPeak Management Annual Report*.

2013 Strategies

The 2013 peak season will be the final season of Idaho Power's current contract with EnerNOC. EnerNOC is contractually obligated to commit to provide at least 35 MW of reduction for each week of the active season in 2013. EnerNOC plans to conduct a post-season customer satisfaction survey for the 2012 season during the first quarter of 2013. The results will be made available to Idaho Power. Idaho Power will continue to evaluate the best use of the program to meet the program objectives,

maximize the benefit to Idaho Power's system, and refine internal criteria to call demand-reduction events.

In 2013, Idaho Power plans to conduct a third-party process evaluation of the FlexPeak Management program and produce an internal report, including 2013 activities, demand reduction, and a cost-effectiveness analysis summary.

Oregon Commercial Audits

	2012	2011
Participation and Savings		
Participants (audits)	14	12
Energy Savings (kWh)	n/a	n/a
Demand Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$0	$0
Oregon Energy Efficiency Rider	$12,470	$13,597
Idaho Power Funds	$0	$0
Total Program Costs—All Sources	$12,470	$13,597
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	n/a	n/a
Total Resource Benefit/Cost Ratio	n/a	n/a
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	n/a	
Total Resource Benefit/Cost Ratio	n/a	
Program Characteristics		
Program Jurisdiction	Oregon	
Program Inception	1983	

Description

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

2012 Activities

Idaho Power sent out its annual mailing to approximately 3,400 Oregon commercial customers in August 2012. Customers were notified of the availability of no-cost energy audits and were provided with the Idaho Power publication *Saving Energy Dollars*. Fourteen customers requested an audit, with five audits completed by Idaho Power and nine completed by a third-party contractor.

Idaho Power contracts with EnerTech Services to perform the third-party portion of 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.

2013 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. This customer group 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 2012, the active and inactive irrigation service locations totaled 19,045 system-wide. This was an increase of 1 percent compared to 2011, 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 2,048,435 MWh of energy usage in 2012, which was up from 2011 by 22.4 percent due to the hotter, dryer summer. This sector represented 14.5 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 between 25 hp and 5,000 hp for agricultural uses that receives a verified Green Rewind. Participation in Green Rewind ensures the motor's original efficiency is maintained if it is rewound at an approved service center.

The Irrigation Peak Rewards program had 340 MW of available demand-reduction capacity for summer 2012, an increase of almost 20 MW, or a 6.2-percent increase over 2011 summer's program capacity. For the 2012 season, 2,433 service points were enrolled, compared to 2,342 in 2011, representing a 3.9-percent increase.

The Irrigation Efficiency Rewards program, in operation since 2003, saw its annual savings decrease by 1,363 MWh to 12,617 MWh compared to 2011 reported savings. The savings decrease in 2012 was primarily due to fewer larger projects being done in 2012. During 2012, irrigation customers contributed 30,039 kWh per year of energy savings from 23 motors participating in Green Rewind.

Table 10 summarizes the overall expenses and program performance for both the energy efficiency and demand response programs provided to irrigation customers.

Programs

Table 10. 2012 irrigation program summary

Program	Participants	Total Cost		Savings	
		Utility	Resource	Annual Energy (kWh)	Peak Demand (MW)
Demand Response					
Irrigation Peak Rewards	2,433 service points	$12,423,364	$12,423,364	n/a	339.9
Total		**$12,423,364**	**$12,423,364**	**n/a**	**339.9**
Energy Efficiency					
Irrigation Efficiency Rewards	908 projects	$ 2,373,201	$11,598,185[a]	12,617,164	3.1
Total		**$ 2,373,201**	**$11,598,185**	**12,617,164**	**3.1**

[a] See Appendix 3 for notes on methodology and column definitions.

Each year, the company conducts a customer relationship survey. Overall, 54 percent of Idaho Power irrigation customers surveyed in 2012 for the Burke Customer Relationship survey indicated Idaho Power was meeting or exceeding their needs in offering energy efficiency programs. Fifty-five percent of survey respondents indicated Idaho Power is meeting or exceeding their needs with information on how to save energy or reduce their bill. Sixty-six percent of respondents indicated Idaho Power is meeting or exceeding their needs with encouraging energy efficiency with its customers. Overall, 29 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, 88 percent are “very” or “somewhat” satisfied with the program.

Irrigation Efficiency Rewards

	2012	2011
Participation and Savings		
Participants (projects)	908	880
Energy Savings (kWh)[a]	12,617,164	13,979,833
Demand Reduction (MW)	3.1	3.8
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$1,978,729	$2,153,613
Oregon Energy Efficiency Rider	$360,689	$176,619
Idaho Power Funds	$33,782	$30,072
Total Program Costs—All Sources	$2,373,201	$2,360,304
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.022	$0.020
Total Resource Benefit/Cost Ratio	$0.110	$0.113
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	4.66	
Total Resource Benefit/Cost Ratio	1.76	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2003	

[a] 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 and energy-efficient improvements to existing systems.

Two options help meet the needs for major or minor changes on 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 most 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 include the following:

- 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 predetermined average kWh savings per component.

Participation in Green Rewind is an opportunity that enables customers to maintain the motor's original efficiency and ensures an efficient use of electricity to run the motor. Motor service centers are paid $2 per hp for each NEMA Standard hp-rated motor between 25 and 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 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 awareness of the program and promoting it through the irrigation equipment distribution channels. Marketing efforts include direct mailings, advertisements in agricultural publications, and participation in agricultural workshops and conferences. Idaho Power's agricultural representatives are funded approximately 30 percent by the Idaho and Oregon Riders and 70 percent from base rates.

2012 Activities

Of the 908 irrigation efficiency projects completed in 2012, 790 were associated with the Menu Incentive Option, providing an estimated 7,015 MWh of energy savings and 1.37 MW of demand reduction. The Custom Incentive Option had 118 projects, of which 65 were new irrigation systems and 53 were on existing systems. This option provided 5,572 MWh of energy savings and 1.7 MW of

demand reduction for the year. Also during 2012, irrigation customers contributed 30,039 kWh of energy savings from 23 motors participating in the Green Rewind opportunity.

In June 2012, with approval from the EEAG and OPUC (Tariff Advice No. 12-09), Idaho Power changed the Menu Incentive Option for new or rebuilt wheel-line levelers to only rebuilt wheel-line levelers or rebuild kits. This change came about because the cost of a new wheel-line leveler made this measure not cost effective.

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 2012, Idaho Power provided six workshops promoting the Irrigation Efficiency Rewards program throughout the service area. Approximately 260 customers attended workshops in Blackfoot, Burley, Twin Falls, Grand View, and Nampa. Idaho Power also accepted invitations to present the program at three workshops sponsored by agricultural groups in Idaho Falls, Gooding, and Nampa. Exhibitor booths were displayed at regional agricultural trade shows, including the Eastern and Western Idaho Agriculture Expos, the Agri-Action Ag show, the Treasure Valley Irrigation Conference, and the Idaho Irrigation Equipment Association show and conference.

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 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 savings are achieved. Payments are calculated on predetermined average kWh savings per measure. In some cases, the energy savings estimated in the Menu Incentive Option are adjusted downward to reflect how the components are actually being used. No changes occurred to the assumptions that drive the cost-effectiveness of the measures that are part of this program.

All cost-effective analyses were based on the savings approved by the RTF in January 2010. The measures were reviewed for compliance with the new RTF savings guidelines in 2011 and were determined to be out of compliance. In 2012, the RTF approved of a plan to bring the measure back into compliance with the guidelines. Idaho Power will meet with the RTF in early 2013 to evaluate the research done by the University of Idaho to study the savings impacts of the measures provided in the Menu Incentive Option.

Based on the available deemed savings from the RTF, nearly all the measures offered under the Menu Incentive Option are cost effective. The rebuilt and new wheel-line levelers were shown not to be cost effective in 2010. After reviewing the measure, it was determined that the cost of the new

wheel-line levelers was negatively impacting the cost-effectiveness of the measure. In 2012, the measure was modified to include only rebuilt wheel-line levelers in the program's offerings.

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

Customer Satisfaction and Evaluations

At the February 2012 EEAG meeting, Idaho Power discussed the plan of partnering with the University of Idaho to research the Menu Incentive Option measures of the Irrigation Efficiency Rewards program to gather more information about menu measures. A sub-committee of the RTF will review the research and present aspects of the study to the RTF in 2013.

In 2012, Idaho Power contracted with the University of Idaho to conduct research regarding the Irrigation Efficiency Rewards program Menu Incentive Option. This research evaluated energy savings associated with the repairing of leaks and worn components listed in the Menu Incentive Option. The final report is included in *Supplement 2: Evaluation*.

2013 Strategies

Marketing plans for 2013 include conducting 7 to 10 customer-based irrigation workshops. Additionally, Idaho Power program specialists, agriculture representatives, and an agriculture engineer will attend five regional trade shows. These workshops and trade shows enable discussions between Idaho Power representatives, the company's customers, irrigation dealers, and trade allies while continually educating them about irrigation best practices, the program, and ways to participate. Each year, workshops are conducted in different local areas. Subjects and presentations are updated to offer new ideas.

Idaho Power is reviewing the program regarding measures offered in the Menu Incentive Option. The research provided by the University of Idaho will be presented to the RTF in early 2013. The results of this research project will help determine changes to the program in future years and validate energy savings attributed to the replacement of irrigation components offered in the Menu Incentive Option.

A 2013 media plan has been created aimed at increasing the impact of advertising on this program. In addition, the effectiveness of online advertisements will be evaluated with this target audience. A database of irrigation dealers and vendors is also being 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.

Irrigation Peak Rewards

	2012	2011
Participation and Savings		
Participants (service points)	2,433	2,342
Energy Savings (kWh)	n/a	n/a
Demand Reduction (MW)	339.9	320.0
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$1,309,107	$11,790,216
Oregon Energy Efficiency Rider	$95,863	$254,013
Idaho Power Funds	$11,018,394	$41,993
Total Program Costs—All Sources	$12,423,364	$12,086,222
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	n/a	n/a
Total Resource Benefit/Cost Ratio	n/a	n/a
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	1.79	
Total Resource Benefit/Cost Ratio	1.72	
Program Characteristics		
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. 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 2012, 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.

Participants in the Manual Dispatch Option are required to nominate the amount of kW they are enrolling in the program by June 1 of the program year. Participants in the Electronic Timer Option can choose to have all irrigation pumps on a single, metered service point turned off one, two, or three times per week. Interruptions occur 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 are applied to participating service locations less than 75 hp. 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. For 2012, dispatchable load control events could happen between 1:00 p.m. and 9:00 p.m. on weekdays and Saturday. Customers who choose to

participate until 9:00 p.m. receive 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.

The incentive structure includes a fixed and variable incentive payment. A customer's fixed incentive appears as a bill credit that sums the demand credit and energy credit for the interruption option selected and applies to a customer's monthly bills. The variable incentive is a summary of all load control event kWh multiplied by the variable incentive credit paid in the form of a check within 45 days of the end of the program season. Credits are prorated for periods when reading/billing cycles do not align with the program season dates from June 15 to August 15. All customer incentives participating in the Electric Timer Option, Automatic Dispatch Option, or Manual Dispatch Options are calculated using Idaho Power meter billing data. In addition, Manual Dispatch Option customers' incentives are calculated using interval metering data and nominated kW. Installation fees and opt-out penalties are completed through manual bill adjustments. Incentives, determined from interval meter data for service points classified as large-service locations, are completed through a manual process, and customers received the incentives in the form of a check in 2012. The incentives offered are listed in Table 11.

Table 11. Option incentives

Dispatchable Interruption Option Incentives							
	Fixed Incentive Payment				Variable Incentive Payment		
Dispatchable Option	Demand Credit ($/billing kW)		Energy Credit ($/billing kWh)		Standard Interruption Variable[a]		Extended Interruption Variable[b]
Options 1, 2, and 3	$5.00	**and**	$0.019	**plus**	$0.159	**or**	$0.209

[a] Energy Credit: 4 hours between 1–8 p.m. ($/event kWh)
[b] Energy Credit: 4 hours between 1–9 p.m. ($/event kWh)

Electronic Timer Option Incentives			
Option	**Demand Credit ($ per billing kW)**		**Energy Credit ($ per billing kWh)**
Timer Option Incentives			
One weekday	$3.15		
Two weekdays	$4.65	**plus**	$0.002
Three weekdays	$4.65	**plus**	$0.007

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.

2012 Activities

Participation in this program was strong in 2012. Service points increased by 91, a 3.9-percent increase over 2011. Most of the challenges surrounding communication with some dispatch devices that occurred in prior years were resolved. In 2012, the program had the potential to achieve a maximum peak load reduction of approximately 340 MW. This represents a 6-percent increase from 2011, even though the company did not solicit new participants. Of all eligible irrigation service locations, approximately 13 percent participated in the program. In 2012, there were 2,433 metered service points enrolled in the program, with approximately 3.4 percent enrolled in the Electric Timer Option, 95.1 percent enrolled in the Automatic Dispatch Option, and 1.5 percent in the Manual Dispatch Option.

Idaho Power attempted to distribute the Electric Timer Option participating service points evenly throughout each weekday based on cumulative demand-reduction potential. However, due to service-point size variability, enrollment opt-outs, and other variables, the load reduction could not be exactly balanced. All participants in the Automatic and Manual Dispatch Options were grouped into five regional areas to be dispatched on each scheduled event day. Table 12 shows the MW reduction achieved daily on a week-by-week basis.

Table 12. Total program daily MW reduction without distribution losses using realization rates

Measure	Monday	Tuesday	Wednesday	Thursday	Friday
June 15	n/a	n/a	n/a	n/a	3.1
June 18–22	4.2	4.0	3.9	4.2	3.3
June 25–29	4.2	4.0	3.9	339.9[a]	3.3
July 2–6	4.0	3.8	3.7	3.9	3.1
July 9–13	4.0	3.8	3.7	320.7[b]	3.1
July 16–20	3.5	3.3	3.2	3.5	2.7
July 23–27	3.5	3.3	3.2	3.5	2.7
July 30–August 3	3.2	3.1	3.0	3.2	2.5
August 6–10	3.2	3.1	3.0	3.2	2.5
August 13–15	3.2	3.1	3.0	n/a	n/a

[a] The shaded cell reflects the estimated MW load reduction capacity available through the program.
[b] The shaded cell is Idaho Power's peak load day and reflects the estimated MW load reduction capacity available through the program.

Although the load reduction provided by the Irrigation Peak Rewards program was available to Idaho Power throughout the 2012 program season, dispatching the program was unnecessary. This was due to resources being able to meet system peak demands, low energy prices, and lack of system emergencies during the summer. Under the program's variable incentive design, taking into account both the extended interruption incentive and program realization rates, the program had an approximate dispatch price of $240 per MWh, which would total about $300,000 per event if all customers were interrupted for four hours. The program would be used if the company could not meet its peak needs with other resources, if hourly energy prices were greater than the dispatch cost of the program, or to avert a system emergency.

In February 2012, a customer mailing was sent to irrigation customers who participated in the program in 2011. The mailing included a program explanation, a program application, contract agreement, the program's incentive structure, a list of the customer's eligible service points, and an incentive estimate for each program option. Customers that had not participated in the program and did not receive the initial mailing but requested to participate were sent the same information.

Idaho Power did not market the program in 2012 but did provide program information at six workshops throughout the service area. Approximately 260 customers attended workshops in Blackfoot, Burley, Twin Falls, Grand View, and Nampa. The company also accepted invitations to present the program at three workshops sponsored by agricultural groups in Idaho Falls, Gooding, and Nampa. Exhibitor booths, where company representatives were available to answer questions, were displayed at regional agricultural trade shows, including the Eastern and the Western Idaho Agriculture Expos, 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 familiarized customers with the technology and program details.

At the July 2012 EEAG meeting, Idaho Power presented the concept of changing the Irrigation Peak Rewards program to have three or four interruption events included in the fixed portion of the incentive customers receive. This would mean the program would not have to pay the variable incentive for these events. The events would be used primarily for customer awareness of what happens when events are called. It was discussed that without these included events the program could go multiple years without initiating any load control events. EEAG members were generally accepting of the concept.

Cost-Effectiveness

The B/C analysis for the Irrigation Peak Rewards program is based on a 20-year model that uses financial and DSM alternate-cost assumptions from the most recent IRP. As published in the 2011 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 has indicated a lack of near-term capacity deficits, on December 21, 2012, Idaho Power filed a proposal with the IPUC to temporarily suspend two of its demand response programs, A/C Cool Credit and Irrigation Peak Rewards for 2013. A settlement workshop was held in February 2013 with Idaho Power and interested stakeholders to discuss plans for the 2013 cycling season. The stipulation was filed on February 14, 2013. Idaho Power intends to meet with all stakeholders in workshops to further discuss future changes and identify the best long-term solutions for 2014 and beyond.

Demand response programs are analyzed over the program life, this includes historical program demand reduction and expenses, as well as forecasted program activity. Because of the uncertainty of the program costs and because an order in the IPC-E-12-29 case is pending, for this report, the company conducted its cost-effectiveness analysis using the information know prior to the filing to temporarily suspend the Irrigation Peak Rewards program in 2013. The costs and demand capacity for 2012 were included with the forecast demand reduction and costs based on the 2013 budget and expected results. The Irrigation Peak Rewards program had a TRC ratio of 1.72. From a one-year perspective, the Irrigation Peak Rewards program had a TRC ratio of 2.4. See *Supplement 1: Cost-Effectiveness* for details on the cost-effectiveness assumptions and data.

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*.

2013 Strategies

As referenced previously, on December 21, 2012, Idaho Power filed Case No. IPC-E-12-29 with the IPUC to temporarily suspend the Irrigation Peak Rewards program for the 2013 season. The 2013 IRP is under development, and the IRP analysis indicates there will not be a need for demand response programs like the Irrigation Peak Rewards program during 2013. The proposed temporary suspension of Irrigation Peak Rewards will allow Idaho Power to work with stakeholders to determine the future course of action for its demand response programs. Idaho Power has proposed to continue to maintain the load control devices currently in place until further direction indicates otherwise.

Idaho Power plans to also file with the OPUC to suspend the program for 2013.

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. 2012 was the third year of NEEA's current, five-year plan.

NEEA performs several MPERs on various energy efficiency efforts each year. In addition to the MPERs, NEEA provides market-research reports 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*.

In 2012, Idaho Power energy efficiency staff served on NEEA's Board of Directors, attended advisory meetings, served on sub-committees, 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 2012. This included partial funding of the IDL and local BetterBricks® trainings and workshops. Idaho Power's commercial sector programs Building Efficiency and Easy Upgrades are designed to leverage NEEA, the IDL, and BetterBricks activities.

In the industrial sector, NEEA continued its efforts to embed Continuous Energy Improvement (CEI) in small- to medium-sized businesses defined as less than 250 employees per site. CEI is a multi-year strategic effort designed to improve energy efficiency in the industrial sector. Prior CEI efforts focused on two regional industries considered heavy energy users: 1) the food processing industry and 2) the pulp and paper industry. Participants achieve cost savings through the adoption of energy-efficient business practices. CEI provides expert support, resources, and services, supplying companies with the training and tools for making energy efficiency a core business value. This effort is supported by providing technical knowledge to organizations and to Idaho Power customers collaborating on energy efficiency implementation. NEEA has a demonstration project for the agricultural sector taking place in Idaho. The project will provide information on control systems and variable-rate irrigation to improve overall efficiency.

Technical training and education continue to be important in helping Idaho Power's industrial customers identify where they may have energy efficiency opportunities within their facilities. Nine technical training classes were completed in 2012. Topics included compressed air, chilled water systems and cooling towers, pumping systems, VFDs, industrial refrigeration, data-center efficiency, and energy-management systems. The level of attendance at these classes remains high, with 171 participants attending the workshops.

In the commercial sector, NEEA has been working 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 Pilot. The pilot concluded in the second quarter of 2012. NEEA has also been working to secure 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.

Residential NEEA Activities in Idaho

NEEA supported a variety of residential programs and associated activities in Idaho Power's service area in 2012.

Among Idaho Power's programs, NEEA is directly involved in providing additional funding and support for ENERGY STAR® Homes Northwest, the DHP Pilot, the Residential Economizer study, and the Consumer Electronics Energy Forward campaign.

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.

In June, Idaho Power partnered with NEEA to promote the 2012 St. Jude Dream Home®. The Dream Home was a certified, electrically heated, ENERGY STAR home featuring a state-of-the-art DHP. NEEA secured the donation of the DHP from the manufacturer. An Idaho Power bill insert promoted the ENERGY STAR qualified Dream Home, and NEEA donated an ENERGY STAR flat-screen television to be used as a raffle prize.

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 in 2012, conducted from September through December. 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 newspaper advertising. Idaho Power currently offers a $750 cash incentive for qualified homeowners who install a qualified DHP system.

NEEA coordinated a residential Heat Pump Water Heater (HPWH) research project in the Northwest region that started approximately three years ago. A goal of the project is to promote the adoption of higher-efficiency water heaters over units built with only electric-resistance heat. Another goal is to provide a business case to the DOE by April 2016 encouraging the DOE to modify the 2020 federal standards and test methods for domestic electric water heaters. Water heaters built with only electric-resistance heat will not meet the proposed modified standard. The research project includes data collection, design, analysis, savings calculations, and marketing activities. NEEA's promotion offers a $1,000 rebate through June 2013 to residential homeowners who have certain HPWHs installed. The promotion requires the HPWH to be installed by a contractor trained by NEEA. In 2012, NEEA trained 18 contractors in the Idaho Power service area. NEEA also arranged for a HPWH discount program to be offered through Sears, a national appliance retailer, using 30 of their stores in the Northwest. Discounts were made available to homeowners who purchased certain HPWHs. Idaho Power participated in a HPWH summit in Portland in June 2012. The goal of the summit was to increase collaboration and cohesion with all regional utilities and other stakeholders.

In 2012, an Idaho Power residential program specialist participated on the selection committee for the HPWH Model Validation & Process Evaluation. This study strives to provide energy-savings data through the installation of HPWHs and data-logging equipment in residential homes. The committee

scored contractor bids and selected the contractor Evergreen Economics to provide the HPWH Model Validation and Process Evaluation. Evaluation data will be compared to energy-savings data generated by the RTF's computer modeling created specifically for this study.

Idaho Power's partnership with NEEA's Consumer Electronics Energy Forward Campaign continued in 2012. The Energy Forward campaign highlighted the most energy-efficient televisions available. Retailers who represent more than 80 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. Although final 2012 numbers are not yet available, as of late 2012, approximately 37 percent of televisions sold in the region were Energy Forward-qualified.

NEEA developed and launched a number of marketing tactics, including a fall marketing campaign to drive sales of qualifying televisions and engage national retailers in the promotion of these televisions. The campaign was a sweepstakes in which consumers could enter to win one of four "VIP tailgates" at a home game (one in each state of Idaho, Montana, Oregon, and Washington) or a chance to win weekly sub-prizes like Energy Forward televisions. Best Buy, Sears, and ENERGY STAR were campaign sponsors, and NEEA conducted public relations, advertising, social media, and online promotional tactics, including promotional packages with universities.

NEEA also launched a marketing campaign on October 1 with Best Buy, Sears, and ENERGY STAR as campaign sponsors. The primary objectives of the campaign were to increase retailer participation in promoting Energy Forward Most Efficient televisions, increase sales associates' awareness of them, and increase sales associates' ability to communicate qualifying television benefits to consumers leading into Black Friday. Mass consumer outreach via public relations, paid media, social media, community events, and partner outreach enticed retail partners to participate in the campaign and also helped increase consumer awareness and demand leading into the busiest shopping season of the year. NEEA representatives maintained retail partnerships by visiting each store at various times throughout the year, setting up point-of-purchase materials, and educating the sales staff.

Idaho Power has also participated in NEEA's Residential Advisory Committee meetings and activities throughout 2012 and served on the advisory team to contribute to ongoing improvements of Conduit, a regional online community for energy efficiency program managers in the Pacific Northwest. The goal of Conduit is to expedite the delivery and adoption of energy efficiency programs and activities. NEEA launched the website in May 2011. Conduit houses a library, discussion forums, and collaboration space. Similar to Facebook in features and benefits, Conduit is a space for energy efficiency professionals to congregate and share ideas, concerns, and questions. It is open to trade allies, state agencies, regulators, research institutions, and utility professionals. Additionally, two members of the residential programs team attended NEEA's annual conference, Connections Northwest, which provided updates on NEEA-sponsored programs and research, as well as valuable networking opportunities with other utility program managers.

An Idaho Power residential program specialist participated on the Regional Emerging Technologies Advisory Committee (RETAC) during 2012. The committee reviewed and updated the RETAC charter to effectively integrate the charter with other committees such, as the RPAC. Another RETAC committee purpose was to develop a 2013 plan to support the charter and member needs. The 2012 portfolio of emerging technologies under review at NEEA was discussed. Idaho Power and other utilities participating in RETAC reported on the energy efficiency projects the utility companies were interested in or had investigated.

In 2012, an Idaho Power residential program specialist participated on the National Energy Efficiency Technology Road Mapping Summit committee. The purpose of the committee was to revise current technology characteristics and the research and development (R&D) associated with the individual residential and commercial technology roadmaps contained in the Roadmap Portfolio. The Roadmap Portfolio helps guide and prioritize the regional investigation of technologies. The portfolio contains many technologies, along with the specific drivers, capability gaps, characteristics, and R&D programs associated with each technology. Idaho Power participated in revisions to the HVAC technology roadmap. The prioritization of all residential and commercial roadmaps is to be completed by March 2013.

An Idaho Power residential specialist was involved in 2012 with the NWRRC. This collaborative is a forum to evaluate and coordinate regional retail strategy. The first official meeting as a collaborative was held on November 27, 2012, at the Puget Sound Energy office in Olympia, Washington. Activities included a presentation to NEEA's Portfolio Committee, approval and adaption of Charter and Working Agreements, and the development of a scoping process for 20 potential measures identified for review at subsequent meetings.

Other NEEA Activities in Idaho

Over the last two years, Idaho Power's energy efficiency analysts participated in two committees to collect basic information on building stock and energy use of buildings throughout the Pacific Northwest. The results of the studies help form the future regional planning efforts. In 2011, NEEA moved forward with the RBSA. With the RBSA, customers from households in Washington, Oregon, Idaho, and parts of Montana were selected randomly to participate in a phone survey. A subset of those customers was then selected to participate in an on-site survey and, in some cases, a more in-depth energy review of the home. The *Single-Family Characteristics and Energy Use Report* was released in September 2012. The *Manufactured Home Characteristics and Energy Use Report* was published in January 2013. The multi-family report is expected to be released in 2013. Organizations, such as the RTF, have begun to revise measure saving using updated assumptions from the RBSA.

In addition to the RBSA, NEEA began work on the Commercial Building Stock Assessment (CBSA). An Idaho Power energy efficiency analyst participated in the RFP selection committee and the Sampling Priorities Working Group. Work on the CBSA will continue throughout 2013, with a final report expected in 2014.

Idaho Power is a participant in NEEA's Cost Effectiveness Advisory Committee. This committee meets three to four times a year to review NEEA cost-effectiveness models, assumptions, and, ultimately, energy-savings estimates. 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.

NEEA Funding

In 2012, Idaho Power began the third 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 2012, 100 percent was funded through the Idaho and Oregon Riders.

In 2012, Idaho Power paid $3,379,756 to NEEA. The Idaho jurisdictional share of the payments was $3,210,768, while $168,988 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 savings for the previous year. In the *Demand-Side Management 2011 Annual Report*, the NEEA savings reported were 16,109 MWh. The revised estimate included in this report for 2011 NEEA savings is 20,547 MWh. Preliminary estimates reported by NEEA for 2012 indicate that Idaho Power's share of regional market-transformation MWh savings for 2012 is 17,741 MWh, or 2 aMW. 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.nwalliance.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's goal is to promote energy efficiency to the residential sector. This goal is achieved by creating and delivering educational materials and programs that 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 lead the production and distribution of the 2012 energy efficiency guides.

The first *Winter Energy Efficiency Guide*, designed specifically around content applicable for homes with electric heat, was distributed to 187,114 customers with their newspapers in January. The *Summer Energy Efficiency Guide* circulation increased to 222,313 due to additional newspaper subscriptions, insertion into the *Boise Weekly* magazine, and an extra 800 copies for hand delivery by Idaho Power representatives to locations, such as senior centers. The *Summer Energy Efficiency Guide*, inserted into newspapers on May 20, focused on ways to save money and make wise use of electricity during the cooling season. To get information out well in advance of the heating season, a third energy efficiency guide was published and distributed on November 11. This guide introduced tools and checklists to assist customers in getting the most savings per dollar invested in energy-related upgrades. It also suggested low and no-cost ways to increase comfort and manage bills while maintaining equipment and planning for future improvements.

During 2012, Idaho Power changed the style of the energy efficiency guides and incorporated a more consistent look and feel, including a catalog identification number to facilitate subsequent in-house printings. These process improvements allowed the company to increase the shelf-life and begin to build a library of flexible resources at a minimal cost. In 2012, 1,405 additional guides were distributed as educational handouts at energy efficiency presentations and events. About 10 percent of customers who requested *30 Simple Things You Can Do To Save Energy* also requested one or more of the energy efficiency guides.

In 2012, Idaho Power continued to build its social-media presence. Compared to this time last year, Facebook fans nearly doubled to just over 3,600, and Idaho Power's Twitter following quadrupled to 800 users. The company continued to leverage both channels to communicate information about Idaho Power energy efficiency programs, incentives, and events. Idaho Power's YouTube channel also saw increased activity; the 45 videos currently posted generated 13,500 views, of which 5,500 came from Idaho Power's educational video on DHPs. Across all channels, content was timed to align with print and broadcast campaigns so as to reinforce the message and heighten customer awareness. Additionally, Idaho Power's Energy Efficiency Program managers responded to 362 web inquiries with detailed written answers.

The Residential Energy Efficiency Education Initiative distributed energy efficiency messages through a variety of other communication methods during 2012. 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, 8,707 English and 1,008 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, Boise Home Audit Project, and See ya later, refrigerator® program; through direct web requests; and in response to inquiries received by Idaho Power's customer service center. Of the books distributed in 2012, 1,106 were mailed directly to customers at their request, including 1,087 sent to customers who contacted Idaho Power's Customer Service Center with questions about how to reduce energy use and 19 in response to direct requests received through Idaho Power's website. Idaho Power also mailed 876 copies of the informational brochure *Practical Ways to Manage Your Electricity Bill* to customers who called specifically with concerns about high bills.

Idaho Power continues to recognize that 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. Activities during 2012 included weekly articles in internal publications to engage employees in learning more about Idaho Power's programs and wise energy use. A texting competition was implemented and employees were encouraged to text answers to weekly questions focused on energy efficiency. Posters for display in Idaho Power's offices and distribution of wearable buttons encouraging employees to become "Energy Efficiency Rock Stars" rounded out the month.

Although the formal partnership with the Idaho Commission for Libraries expired in June 2011, the Kill A Watt™ Meter Program remained active in 2012. With this commitment complete, Idaho Power reached out to local libraries to assist with the continued promotion of the program. Idaho Power developed a travelling, interactive table display for individual library use to create buzz and interest around the Kill A Watt kits. All participating libraries received an invitation to schedule the display. Eight libraries responded and three displays moved amongst the libraries throughout the summer and fall.

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 2012, 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).

Other energy education partnerships included working with the IDL in late autumn to offer two residential-focused training seminars in the BetterBricks® series. Twenty-four participants attended the session titled "Advanced Insulation Techniques" and 16 attended "The People Side of Sustainability." Both sessions had two off-site participants that attended via live video streaming. Videotapes of the seminars are available for download from the IDL's website. The workshops averaged 15 post-lecture downloads in 2012. 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. Attendance increased from an average of 12 participants per session in 2011 to an average of 18 participants per session in 2012. 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 seven workshops during the year.

In addition to these activities, Idaho Power continued sponsorship of the fifth annual Idaho Green Expo in June. As part of Idaho Power's commitment to the Expo, the company sponsored a direct-mail effort to increase participation and publicize the new location. Data from Idaho Power's 2010 and 2011 Green Expo Surveys was mined to determine the best Treasure Valley homeowners to include. Two-for-one coupons were provided the week prior to the Expo to 26,000 targeted participants. The Idaho Power Expo booth consisted of a "Summer of '78" theme, where participants were encouraged to set their

summertime thermostats to 78 degrees and given other stay-cool tips. In addition to sharing this message at the booth, Idaho Power partnered with six other sustainably minded organizations to sponsor a broad educational activity that used text messaging to engage attendees and their families for the length of their expo visit. The activity exceeded expectations with 186 unique individuals, representing 6 percent of total expo attendees, choosing to play. Together, they texted 3,093 correct answers to the specified telephone number. On average, these 186 players texted 17 correct answers each and thus received 34 pieces of valuable information during their expo visit. The regional director for the vendor, who processed the text messages, stated, "These results are quite fantastic. In a typical setting I would estimate 1.5 percent to 2 percent participation. You all have tripled that. Great effort!"

For the third year running, Idaho Power partnered with GreenWorks Idaho to develop and administer an exit survey, resulting in 342 completed surveys. The Green Expo participant profiles will be used to further improve messaging and goals and increase an understanding of Idaho Power's return-on-investment for future sponsorship of this event. It will also be used for tracking energy efficiency-related trends among expo attendees. Thirty percent of this year's survey participants reported having received an energy efficiency incentive payment from Idaho Power, up from 21 percent in 2011. The survey summary is provided in *Supplement 2: Evaluation*.

In September 2012, Idaho Power participated in the St. Luke's Women's Show for the fifth consecutive year. The event continues to be important due to the size of the audience and because its demographic component aligns with Idaho Power's residential energy efficiency target audience. Numerous marketing research studies have shown the people most likely to participate in energy efficiency programs tend to be females with higher education and income levels than the general population. This target audience aligns well with individuals who attend this event.

Idaho Power requested booth visitors complete an in-depth survey. The survey was redesigned in 2012 based on results from the previous two years' surveys to gather key market data and establish a baseline regarding attitudes toward energy-efficient and sustainable behaviors. Another improvement with the 2012 survey was that participants were given the opportunity to complete an online survey prior to the show through the show sponsor. This resulted in a more positive experience in completing the survey for many, since there were frequently waiting lines in previous years. In total, the company collected 670 completed surveys, exceeding the target of 400. The opportunity to complete the survey online shortened the waiting line at the booth and resulted in 274 of the 670 survey respondents completing the survey from a remote location.

Although the respondents are not a random sample, key findings from the Women's Show survey indicated Idaho Power's ENERGY STAR® Homes Northwest continues to be the most recognized energy efficiency program, with most respondents (77%) indicating they were "aware of" the program. Respondents also indicated awareness of other ENERGY STAR branded programs and the See ya later, refrigerator® program. Energy House Calls was the least recognized program, with a majority of respondents (65%) indicating they had "never heard of" the program. The Home Products Program and A/C Cool Credit program were most identified by participants as a program they had participated in.

Of the Women's Show participants that completed the survey (98% female), the majority said they review and pay the monthly bills in their home and are the primary decision makers for managing thermostats, purchasing light bulbs and fixtures, and making appliance and electronics purchases. However, less than half of respondents indicated they are the primary decision maker for home upgrades, such as adding insulation.

When asked if they had plans to reduce their electricity consumption, less than 8 percent indicated they had no plans to do so. Forty-three percent indicated they were already taking some action, while 49 percent indicated they were either currently exploring ways or starting to take some action to reduce electricity use. Of the actions presented, turning lights off when leaving the room, adjusting thermostats up two degrees in the summer, and replacing incandescent light bulbs with CFLs were the most likely behavioral changes respondents would take to save money and to positively impact the environment. Respondents were slightly more inclined to reduce their water heater temperature 10 degrees and participate in the A/C Cool Credit program for positive environmental benefits than cost savings.

Idaho Power further increased its energy efficiency presence in the community by providing energy efficiency and program information through 171 outreach activities, including events, presentations, trainings, and other outreach activities. As part of process improvement accomplishments, the Outreach Tracking System, the database that records educational and outreach activities, again received some enhancements for additional metrics. In 2012, a special effort was made to increase the quantity and quality of post-event feedback recorded in the database. At the conclusion of 2012, 71 percent of events taking place during the year had some post-event documentation recorded in the system.

In addition to the outreach activities noted previously, Idaho Power field staff throughout Idaho Power's service area delivered another 176 presentations to local organizations addressing energy efficiency programs and wise energy use. In 2012, the Community Education team provided 92 presentations on *The Power to Make a Difference* to 2,690 people. More specifically, 53 of these presentations were to students, and 29 of them were community presentations. The breakdown of attendance was 1,539 students and 1,151 community members. The community education representatives and other staff members also completed 42 senior citizen presentations on energy efficiency programs and shared information about saving energy to a total of 1,473 seniors in the company service area.

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, Green Power Newsletter*, *A/C Cool Credit Newsletter*, *Customer Connections*, and Idaho Power's Facebook page. Additionally, the initiative worked with the Energy-Use Advisory Tool (EUAT) team to provide appropriate tips and suggestions for the account manager enhancements implemented in March. One of the major goals of this web enhancement was to educate customers and encourage behavioral change by linking specific energy-related behaviors and choices to their monetary consequences. Time-of-Day promotional materials and calculators were also created with energy efficiency suggestions from the initiative.

During 2013, 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 2013 include more opportunities to educate and influence young people regarding wise energy use and continued work with Idaho Power program specialists, partners, and participating contractors to influence behavioral change, particularly when energy efficiency upgrades are made. Energy efficiency educational materials and channels will continue to be evaluated and either developed or revised, as necessary, to increase customer reach, improve distribution, and enhance presentation opportunities. Beginning in 2013, two issues of *Customer Connections* (the monthly newsletter included in customer bills) will be devoted entirely to energy efficiency. Idaho Power will continue to actively evaluate existing data to determine how future research and data collection may be improved to further the Residential Energy Efficiency Education Initiative's goals.

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 provides $125,000 to be paid to CAP agencies in the Idaho Power service area on a prorated basis. In addition, this order specified that Idaho Power provide educational information for households that heat their homes with electricity provided by Idaho Power.

Three main desired outcomes of the Easy Savings Program are to educate recipients about saving energy in their homes to use energy wisely, to allow hands-on experience while installing a low-cost measure, and to reduce the energy burden for energy assistance/LIHEAP applicants.

In past years, the primary target for the program was households applying for energy assistance that did not qualify for weatherization prioritization. Households that were targeted through the Easy Savings Program generally did not include elderly or disabled individuals or families with children that are already prioritized for other Idaho Power weatherization services. For the 2011 to 2012 program, the priority status for weatherization assistance exclusion was removed. Customers with priority status for weatherization are now eligible to receive Easy $avings® program kits.

Each provided kit contained the following low-cost/no-cost energy saving items:

- 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
- Survey inquiring about the installation experience and actions taken to reduce energy use

All educational materials are printed in English and Spanish. Returned surveys are used to track the effectiveness of the program. Tracking is done via a kit/survey unique numbering system.

In August 2012, Idaho Power placed an order with the Easy Savings Program vendor, Resource Action Programs (RAP), for a two-year supply of kits. This allowed time for the regional CAP agencies to receive kits and ready them for distribution by the beginning of the LIHEAP season, which begins on November 1 each year and ends the following March, depending on funding availability.

Fulfilling the payment requirements for program years 2011 to 2012, $250,000 were sent by Idaho Power to CAP agency executive directors in each region. Each agency used 30 percent of the agency's allotment to cover expenses for administering the program at their agency. An order for 4,255 kits was placed in August 2012. Kits were shipped from the vendor and received at agencies in October 2012 for distribution to customers. The goal is to have all kits distributed prior to November 2013.

Between October 2012 and December 31, 2012, 850 kits were distributed to Idaho Power customers approved to receive energy assistance benefits on their Idaho Power bills. A participant survey inquiring about installation experiences and actions taken to reduce energy use was included in the kits. Tracking was done via a kit/survey numbering system. Returned surveys were used to track the educational impact of the program.

Of the 850 surveys distributed, 126 completed surveys were received back from customers describing their experience in installing kit items in their homes. 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-one percent of household respondents reported they have, or will, lower their heat during the day, and 82 percent reported they will lower their heat at night. Eighty-two percent of the households reported installing both CFLs provided, and another 12 percent said they installed one of the CFLs provided. Seventy-nine percent of the households reported installing the high-efficiency showerhead.

Overall, survey results show that over 58 percent of the households that received the kits and returned a survey installed five or more kit items. Seventy-four 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*.

Gift certificates valued at $100 each will be provided by CAPAI to encourage survey completion on the remaining 3,405 kits. A drawing from all returned surveys will be held in 2013. Five households will win a $100 gift certificate. Upon anticipated completion of kit distribution in October 2013, Idaho Power and CAPAI will consider changes for the program in 2014.

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. A major strength of the initiative is the emphasis on building strategic relationships. The program specialist works 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. Additionally, these site visits serve as training opportunities for field staff, raising their knowledge for future site visits.

In 2012, Idaho Power carried out its plan to capitalize on effective customer projects by posting on Idaho Power's website six *Success Stories* highlighting customers' 2012 energy efficiency projects. Copies of the 2012 *Success Stories* are provided in *Supplement 2: Evaluation*.

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; and American Society of Heating, Refrigeration,

and Air-Conditioning Engineers. 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-and-learn sessions held at various design and engineering firms, and offering a tool loan library. Customers also have access to equipment that enables them to measure and monitor energy consumption on various systems within their operation.

In 2012, the Commercial Education Initiative sought further opportunities to assist small communities interested in learning more about energy efficiency. The initiative continued to conduct site visits, used the Equipment Efficiency Specification Sheets, and distributed target market information tip sheets. Additionally, Idaho Power offered assistance to colleges providing energy-related technical education.

Plans for 2013 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 to increase their energy expertise, and 3) refining tools that allow customers to perform a cursory evaluation of their own facilities to identify energy efficiency opportunities and determine if a more in-depth evaluation or audit is needed. Customer support via facility walk-throughs and site-specific efficiency guidance will continue. Idaho Power will continue working with key stakeholders to provide outreach and training opportunities. In a partnership with NEEA and BOMA, Idaho Power is piloting an energy-savings competition for commercial office buildings. Similar competitions have successfully been held in Seattle, Washington, and Portland, Oregon. Branded as the Kilowatt Crackdown™, the goal of the competition is to help participants raise their energy awareness and increase building performance community wide. The Kilowatt Crackdown will be a beneficial educational opportunity for participants.

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 that still provide energy savings or a defined benefit to the promotion of energy-efficient behaviors or activities.

Idaho Power received four applications for LEEF in 2012. Projects included 1) the installation of computerized controllers on existing engine-block heaters in a bus yard, 2) the use of a solar thermal system to heat a residence in Idaho City, 3) the installation of a programmable logic controller on manufacturing ovens to reduce peak demand, and 4) the construction of an energy-efficient micro-home for demonstration purposes.

For each of these projects, Idaho Power convened a working group of engineers and cost-effectiveness analysts to review the application, request additional information, and perform a cost-effectiveness analysis. None of the projects were funded for the reasons stated below.

Three of the projects did not meet cost-effectiveness tests for various reasons. The committee found that less expensive timers would achieve the same savings as the proposed controllers for the block heaters. The residence in Idaho City planned to have a pellet stove for backup heat, so the primary heat source was not going to be electric. The manufacturing ovens proposal shifted use, but the existing peak period was not during Idaho Power's peak demand period, and there were no proposed energy savings associated with the proposal. The micro-home project was specific to the 2012 Green Expo trade show, and the application was received too late for the completion of funding and construction prior to the show. However, funding was put into the Residential Energy Efficiency Education Initiative budget in 2013 to complete a similar project that could be used for demonstration purposes.

Residential Economizer Project Study

In 2011, a Residential Economizer Project Study was initiated involving the installation of 19 economizers into residential houses. An economizer draws cool, outside evening air into the A/C system of a house. Its purpose is to reduce the summer cooling energy required to cool the house. The reduction of cooling energy is derived from the reduced run time of the A/C mechanical system. Data collection devices were used to capture energy and temperature values in the houses fitted with these systems. The data was collected during summer 2011. It was analyzed by Idaho Power and third parties to determine potential energy savings. The installation of data-logging equipment, field monitoring, and the energy analysis report was performed by the IDL.

In early 2012, with the advice of EEAG, it was determined that securing additional data during summer 2012 would be beneficial when combined with data collected the prior year. Twenty-two additional houses were fitted with economizers and data-logging equipment. Twelve of the houses data logged in 2011 were also data logged in 2012. Ongoing progress was reported in February and July 2012 EEAG meetings. All 34 houses were analyzed at the end of 2012. The final report from the IDL is due after December 2012.

NEEA has been involved with the study since its beginning in 2011. The 2012 results will be shared with them. In 2011, NEEA planned to contribute to four study reports. Three of the studies were completed in 2011. These three include the baseline energy study, the contractor survey, and the customer survey. NEEA will review the 2012 results to determine if the fourth report, the market-transformation report, will be necessary based on factors including reported energy savings.

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 and renewable-resources development. Activities include the development of standardized protocols for verifying and evaluating energy savings and tracking conservation and renewable resource goals. Providing feedback and suggestions for improving the effectiveness of regional energy efficiency and renewable-resource development programs are additional activities of the RTF. The RTF also recommends a list of eligible conservation 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 2012, Idaho Power staff participated in all of the RTF's meetings and was involved in various sub-committees, such as the RTF Policy Advisory Committee. Idaho Power is also working with the RTF to bring the "out-of-compliance" irrigation hardware measures into compliance. The company partnered with the University of Idaho to conduct field testing of various irrigation components during the 2012 growing season. The research will be presented to the RTF in early 2013.

Since 2010, the RTF has been working toward developing a set of operative guidelines to describe the RTF's methods to select, develop, and maintain measure savings, costs, and other benefits. The guidelines were completed and adopted in 2012. In the meantime, the RTF has spent the past two

years reviewing previously deemed measures and determining its compliance to the new guidelines. A measure may fall under one of the four measure categories and one of the four measure statuses.

Measure categories include proven, provisional, planning, and small-saver savings. Proven savings meet the highest quality and reliability standards. Provisional savings estimates are those the RTF conditionally approves and requires additional data collection. It must be possible to obtain the data necessary to meet the proven quality of standards. Planning savings do not meet the quality of standards of the provisional or proven categories; however, these measures may be needed for the regional program operators. A data-collection plan must be developed that can bring the measure to the provisional or proven category. Small savers are measures that have savings too small to necessitate the resources needed to bring the measure to proven or provisional quality of standards.

Measure statuses include active, under review, de-activated, and out-of-compliance. The active measure status is when the measure's source data is current and contains reliable savings.

Prior to a measure's sunset date, a measure may change its status to under review if new sources of data become available. The measure's savings will be reviewed and may be re-estimated. A de-activated measure status refers to when the sunset date for a measure has passed and new savings estimates have not been approved. A measure may be de-activated if new findings invalidate the measure savings. Out-of-compliance measures are those measures that do not comply with one or more of the requirements from the guidelines. Once the RTF determines a measure is out of compliance, a plan to bring the measure into compliance must be approved within a year. This status is applicable to measures approved prior to June 1, 2011.

Boise City Home Audit Project

In 2011, Idaho Power and the City of Boise partnered to create a limited-term, residential energy audit project that installed low-cost energy-saving measures and identified additional efficiency improvements. The City of Boise received ARRA funding from the DOE Energy Efficiency Conservation Block Grant (EECBG). At the end of 2011, a portion of the funds remained, and the project was extended to provide for an additional 226 home audits.

The home audit extension in 2012 resembled the original project. Idaho Power contracted with HPSs to perform the energy audits and installation of measures. The energy audit included a blower door test, a visual inspection of the crawl space and attic, and a collection of data regarding the home and its energy use. Potential low-cost energy-saving measures that could be installed in each home included limited sealing of air leaks, such as mastic around the furnace unit; installing CFLs; insulating water pipes that are three feet or less between the water heater and the structure; and installing water heater blankets. The audit included instructing customers on a variety of items, including the replacement of their furnace filter and how to lower the temperature on their water heater.

Participating customers paid $49 for the audit and installation of measures, with the remaining cost covered by the EECBG funds. Energy audits of this type normally cost $300 or more, not including the measures, materials, and labor. The cost of the materials potentially installed at each home was approximately $100.

After the audit was complete, homeowners received a report and were provided information on programs that could assist them with the costs of implementing additional measures, including information on the City of Boise's Home Improvement Loan Program.

The target audience for this project was Boise residential customers living in single-family, site-built homes under 3,000 ft^2. The homes had to be owner-occupied year-round. The target was for 25 percent of participating homes to be all-electric.

Participants were recruited through direct-mail. In 2012, six small batches of recruitment letters were mailed for a total of 12,342 letters, with a response rate of 2.3 percent. Customers who were interested in participating in the project were directed to a website to complete an application. Those who either did not have internet access or were uncomfortable with filling out the application online were able to call and have their application taken over the phone. Participants were selected on a first-come, first-served basis.

The three energy auditors from the original project were selected to continue with the extension. Audits were randomly and evenly distributed between the three auditors.

Of the 225 audited homes, 182 homes (81%) were heated by gas, two homes (1%) were heated by oil, and 41 (18%) were heated by electricity. The average age of the homes in the 2012 project extension was 37.6 years old.

Home sizes ranged from 913 ft^2 to 3,176 ft^2. The average home size was 1,933 ft^2. Although the recommended maximum home size was 3,000 ft^2, a few homes over this size were completed. Table 13 shows the 2012 number of participating homes by ranges of square-foot increments.

Table 13. Number of participating homes by size

Home Size	Count
700–1000 ft^2	4
1001–1500 ft^2	63
1501–2000 ft^2	53
2001–2500 ft^2	66
2501–3000 ft^2	31
3001–3328 ft^2	9

Homes were located throughout the Boise city limits, with larger amounts of recruitment letters mailed in those zip codes reported to have a higher percentage of electrically heated homes. Table 14 compares the 2012 number of participating homes per zip code that heat by using electricity, gas, or oil.[2]

Table 14. Number of participating homes by zip code and heating source

Zip Code	Electric	Gas	Oil	Total
83702	7	19	1	27
83703	7	6	0	13
83704	8	52	0	60
83705	5	9	0	14
83706	8	29	0	37
83709	3	25	0	28
83712	1	10	1	12
83713	3	23	0	26
83714	0	1	0	1
83716	0	8	0	8

When performing an audit, the HPS determined which available measures were appropriate for the home, and, if the homeowner approved, those measures were installed. Table 15 lists by heating source and quantity of items installed in participating homes in 2012.

Table 15. Measures installed in participating homes by heat source

	Quantity	Gas Home	Electric Home	Other
CFLs	776			
Water heater blankets		4	1	
Pipe insulation		79	13	1
Mastic		55	11	1

Once an audit was complete, the information obtained by the auditor was entered into a database. A personalized report was created and mailed to each participant detailing what was found at the home, what measures were installed, and further energy efficiency recommendations.

A survey was sent after the participant received their personalized report and allowed time for participant action regarding suggested energy efficiency actions. The survey gathered data on immediate actions the participant initiated following the audit and short-term actions they planned to take at a future date. It also inquired about reasons for inaction, such as expenses or difficulty finding a contractor. A copy of the survey is included in *Supplement 2: Evaluation*.

Idaho Power contracted the IDL and the City of Boise to provide an impact evaluation of the Boise City Home Audit Pilot. Using ARRA funds, energy audits were conducted and low-cost energy efficiency measures were installed at 650 homes located in Boise. The audits took place from late 2010 through summer 2011 and identified additional energy efficiency measures for future consideration by the customer.

The final report indicated that the average savings per home from direct install measures was 308 kWh in electricity and 3 therms in natural gas per year. Based on the average residential consumption in Idaho Power's service area, this represents a 2.4-percent reduction in annual electricity consumption. Although these savings estimates were to be originally calibrated using utility billing data, according to the International Performance Measurement and Verification Protocol (IPMVP), savings were not large enough to accurately differentiate from historical billing data.

The cost-effectiveness analysis conducted under IDLs assumptions indicates that this program, with installed measures for dual-fuel homes, would only be cost-effective under the PCT. The analysis shows that this program with the same installed measures for electrically heated homes would be cost effective under the UCT and TRC. A copy of the complete report is included in *Supplement 2: Evaluation*.

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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. A description of this overall DSM business model was provided in Case No. IPC-E-10-27 filed with the IPUC on October 22, 2010, and is described in more detail below.

Since 2002, Idaho Power has recovered most 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 customer incentives of demand response programs is now included in base rates and tracked in the annual PCA mechanism. On December 30, 2011, the IPUC issued Order No. 32426 in General Rate Case No. IPC-E-11-08 that approved including $11.3 million of demand response incentive payments as part of base rates. As of June 1, 2012, Idaho Power is including in the PCA an amount to true-up actual demand response incentive expenses for the previous year if the amount is different than the $11.3 million in base rates.

To address the removal of financial disincentives, Idaho Power tested the effects of an FCA mechanism in a five-year pilot initiative. In 2011, the FCA completed its fifth year in pilot status. As part of the 2011 General Rate Case No. IPC-E-11-08, Idaho Power requested the FCA become permanent. The IPUC decided the FCA should be addressed in a separate case. On October 19, 2011, the company filed Case No. IPC-E-11-19 with the IPUC. The case requested to convert the FCA to an ongoing and permanent rate schedule. On March 30, 2012, the IPUC issued Order No. 32505, approving the FCA mechanism as a permanent program for the residential and small general-service customers. The IPUC also directed Idaho Power to file a proposal within six months to adjust the FCA to address the capture of changes in load not related to energy efficiency programs. On September 28, 2012, the company submitted its Compliance Filing, requesting the IPUC issue an order authorizing either the continued use of the existing FCA methodology, without change, or in the alternative, a modified methodology that introduces a symmetrical cap on the calculated FCA balance based on the change in the annual energy consumption per customer of plus or minus 2 percent from the historical average. On January 31, 2013, the IPUC issued Final Order No. 32731, directing the FCA mechanism continue unchanged.

Idaho Power is working toward the third component of the overall DSM regulatory model. As part of Case No. IPC-E-10-27, the IPUC issued Order No. 32245 on May 17, 2011, 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 the authority to include 2011 Custom Efficiency program incentive payments in rates and to establish a mechanism to annually update rates for future payments. This mechanism would provide Idaho Power an opportunity to earn an authorized rate of return on its investments in DSRs. As of December 31, 2012, proceedings relating to this case are ongoing.

Fixed-Cost Adjustment

Under the FCA, rates are adjusted annually up or down to recover or refund the difference between the fixed costs authorized by the IPUC 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 invests in energy efficiency and demand response resources designed to reduce customer usage. The FCA is limited to the residential and small general-service customer classes in recognition of the

fact that, for these customers, a high percentage of fixed costs are recovered through their volumetric energy charges.

During the five-year period in which the FCA Schedule 54 was in a pilot status, Idaho Power made strong progress toward improving and enhancing its efforts to promote energy efficiency and DSM activities. The company increased the number of energy efficiency and demand response programs it offers and substantially increased both its investment in DSM activities and the MWh savings obtained through these activities. Results from the first five years of the pilot indicated the true-up mechanism was working as intended.

As stated previously, on March 30, 2012, the IPUC issued Order No. 32505, approving the FCA mechanism as a permanent program for the residential and small general-service customers.

On May 8, 2012, the IPUC issued Order No. 32544, approving the company's request to implement FCA rates for fixed-cost deferrals in 2011. Beginning June 1, 2012, the company implemented an overall rate adjustment of 0.28 percent to residential and small general-service customers to collect a combined $10.3 million in under-collected fixed costs. Residential customers experienced a rate increase of 0.0227 cents/kWh, while small general-service customers experienced an increase of 0.0324 cents/kWh. The rate adjustments will result in a collection of an additional $1 million over the then-current billed amounts and will be in place until May 31, 2013.

Custom Efficiency Incentive Recovery

On October 31, 2012, the company filed Case No. IPC-E-12-24 requesting authority to include Custom Efficiency program Idaho incentive payments in rates. Previously, on May 17, 2011, the IPUC in Order No. 32245 had authorized Idaho Power to account for Custom Efficiency program incentive payments as a regulatory asset.

In the October 31, 2012, filing, Idaho Power requested the following of the IPUC: Recognize the 2011 Custom Efficiency incentive amounts as "used and useful"; begin recovery of these amounts in rates on June 1, 2013; specify the company's rate of return as the carrying charge for the regulatory asset account prior to amortization; specify a four-year amortization period for the regulatory asset; acknowledge that the unamortized portion of the regulatory asset will earn the company's rate of return, allow the company to institute annual spring filings for this process; and authorize the implementation of Schedule 56. The incremental annual revenue requested in the filing is $2,949,340, with a requested rate change effective date of June, 1, 2013, to coincide with other anticipated rate changes associated with the annual PCA and the annual FCA.

Energy Efficiency Rider—Prudence Determination of Expenditures

On March 15, 2012, Idaho Power filed Case No. IPC-E-12-15 with the IPUC requesting an order finding that the company had prudently incurred $42,641,706 (later adjusted to $42,641,361) in DSM expenses in 2011. This adjusted number included $35,622,976 in Idaho Rider expenses and $7,018,385 in Custom Efficiency program incentive expenses. The filing included three reports: *Demand-Side Management 2011 Annual Report*, *Supplement 1: Cost Effectiveness*, and *Supplement 2: Evaluation*. Supplement 2 included *NEEA Market Effects Evaluations*. In Final Order No. 32667, dated October 22, 2012, and Reconsideration Order No. 32690, dated December 11, 2012, the IPUC approved in part and denied in part Idaho Power's request. In these orders, the IPUC approved $42,468,904.50 in 2011 DSM expenditures, including $35,450,519.50 in Idaho Rider expenses and $7,018,385 in Custom Efficiency

program incentives, as prudently incurred expenses. The IPUC disallowed the recovery of $82,855.50 for incentives paid to participants of the A/C Cool Credit program who did not receive a signal to cycle even though Idaho Power thought they were being cycled. In addition, the IPUC declined to decide the reasonableness of Idaho Power's 2011 Rider-funded, labor-related expense increase until the company provides further information.

Cost-Effectiveness and Funding of Low-Income Weatherization

On February 15, 2012, the IPUC issued a notice that opened Case No. GNR-E-12-01 and scheduled a public workshop from March 19 to 20, 2012. This case was initiated in part because both Rocky Mountain Power and Avista Utilities had recently conducted evaluations of their low-income programs and found them not to be cost effective. In 2012, Idaho Power began an evaluation of their low-income program. In addition, CAPAI asked the IPUC to increase funding for low-income programs in both Idaho Power's and Rocky Mountain Power's service areas. In this case, utilities, interested persons, and IPUC staff were to explore in greater detail issues related to the funding, implementation, and evaluation of utility low-income weatherization and energy conservation education programs. IPUC staff, utilities, CAPAI, and CAP agencies participated in the March workshop.

On October 23, 2012, IPUC staff issued their draft *Report on Low Income Weatherization and Energy Conservation Education Programs*. In this draft report, IPUC staff set out their suggested criteria for consideration when increased funding is being deliberated. IPUC staff also provided recommendations and comments on cost-effective calculations and procedures, as well as utility funding level considerations. Parties to the case, including the three Idaho investor-owned electric utilities, provided reply comments in November 2012. Idaho Power, in its comments, emphasized that low-income program funding should be based on the need exhibited by qualified weatherization customers. A proposed methodology was provided in Idaho Power's comments. On December 7, 2012, IPUC staff filed reply comments. An IPUC order is still anticipated in this case.

Demand Response Programs Suspension

On December 21, 2012, Idaho Power filed Case No. IPC-E-12-29, requesting a temporary suspension of two of its three demand response programs, A/C Cool Credit and Irrigation Peak Rewards. The temporary suspension was requested because the current load and resource balance being used to develop the 2013 IRP does not show a peak-hour deficit in the near term, making these programs unnecessary in 2013. This temporary suspension will allow the company to work with stakeholders to identify the best long-term solution for these programs. The temporary suspension of the two demand response programs and their associated incentive payments would result in reduced costs for all Idaho Power customers in the form of a reduction in the 2013 to 2014 PCA that will be updated June 1, 2013. Before making this filing, Idaho Power convened a special meeting of EEAG on December 14, 2012, to review the issues and solicit member input. The group understood the rational for the filing; however, concerns were expressed about the impact on program participants and about how these program changes integrate in the IRP planning process. The temporary suspension of the programs requested in the filing will provide time to work with stakeholders on the redesign of the programs. The company requested the IPUC issue an order by March 1, 2013.

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CONTINUED COMMITMENT

Every year, Idaho Power enhances its commitment to provide DSM programs that offer broader opportunities for Idaho Power's customers to manage their energy and demand use. Idaho Power also continues its effort to make its own facilities more energy efficient and to find ways to promote energy efficiency in its communities and with its employees. A review of specific efforts is listed in the following sections.

Continued Expansion and Broad Availability of Energy Efficiency and Demand Response Programs

In 2012, Idaho Power broadened the marketing efforts and portfolio of programs offered to customers. Programs continue to add service areas where they are available to customers and continue to add new measures for customer participation. This expansion of programs and offerings helps ensure more customers each year have the opportunity to participate in programs. Some highlights for 2012 are as follows:

- Custom Efficiency awarded the single largest incentive in the program's history, on a chilled water economizer project designed to save approximately 10 million kWh annually.
- The See ya later, refrigerator® program reached a milestone when it picked up its 10,000th unit.
- In the education arena, the first *Winter Energy Efficiency Guide*, designed specifically around content applicable for homes with electric heat, was distributed to 187,114 customers with their newspapers in January. The *Summer Energy Efficiency Guide* circulation increased to 222,313.
- The network of participating contractors for the DHP Pilot expanded in 2012. To accelerate the expansion of the participating contractor network, Idaho Power provided 15 DHP Pilot orientation trainings to participating and prospective contractors. Expansion strategies resulted in the addition of 12 companies to the list of participating contractors, a 22-percent increase over 2011.
- The first biannual *Energy at Work* commercial newsletter was launched by the company. The goal of the newsletter is to provide pertinent and useful information to a customer segment with limited time.
- Idaho Power increased its use of online and social marketing, including an Easy Upgrades online advertising campaign and targeted behavioral advertisements on Facebook and Yahoo!.
- The Weatherization Solutions for Eligible Customers program expanded its service area into the Boise area through a new trade ally called Power Savers.
- In May 2012, Idaho Power issued its inaugural sustainability report: *Balance*. This report highlighted the company's continuing efforts to operate in a manner that supports financial, environmental, and social stewardship.
- In 2012, based on surveys conducted in 2011, Idaho Power received the highest customer satisfaction with business customers among western midsized utilities according to J.D. Power and Associates *2012 Electric Utility Business Customer Satisfaction Study*.

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. Idaho Power is participating in these ongoing meetings and monitoring the situation to assess where support may be offered. The Idaho Building Code Board has convened another Energy Codes Collaborative in 2013 to revise the current energy code in Idaho.

Idaho Power also contributed to the *Idaho Residential Energy Code Compliance* study commissioned by NEEA in 2012. This report is measuring Idaho's level of compliance with energy codes as required by the 2009 ARRA, which mandates that states receiving these funds achieve 90-percent compliance with target codes by 2017. The report describes the study of Idaho residential compliance with the amended version of the 2009 IECC. The report, included in *Supplement 2: Evaluation*, indicates a relatively high compliance by builders with the residential energy code in Idaho and suggests the overall 90-percent compliance rate has already been achieved, although some measures, such as wall insulation and lighting, are below that rate.

Promotion of Energy Efficiency through Electricity Rate Design

Idaho Power continues to support a policy of gradually moving all customers into rates designed to reflect their cost of service, provide cost-based price signals, and encourage the wise and efficient use of energy.

On January 19, 2012, Idaho Power filed Tariff Advice No. 12-02 to expand Schedule 05, Time-of-Day Pilot Plan, to Idaho customers while at the same time suspend Schedule 04, Energy Watch plan. Idaho Power proposed to expand Energy Watch plan at a later time. Included in the Advice filing, which later became Case No. IPC-E-12-05, was a report titled *2012 Time-Variant Pricing (TVP) Implementation Plan*. The overall goal of this implementation plan was to "utilize the new AMI system to offer customers a choice of pricing plans while providing them with better tools to manage their energy usage, to provide the company with the opportunity to further study the effects of a time-variant rate on customers' usage, and to help shape the company's future communication efforts." The company also planned to evaluate the impact of this new rate plan on its revenues and costs. The Time-of-Day pricing structure was designed to send price signals to customers that more closely reflect the costs of serving those customers. The plan provides participants the opportunity to move their usage from higher-priced time periods to lower-priced time periods and possibly lower their bills. On March 27, 2012, the IPUC issued Order No. 32499 and approved the proposed changes to the tariffs and directed Idaho Power to file a report analyzing the *2012 TVP Implementation Plan* results to IPUC staff prior to further revising its TVP tariffs.

Idaho Power set up a study to determine changes in energy usage caused by changes in participants' behavior in response to the new rate structure. A target market was determined and, throughout spring and summer 2012, participants were solicited by a weekly direct-mail effort. Potential participants were encouraged to visit Idaho Power's website (http://www.idahopower.com/TOD) to evaluate their usage under the different plan options and to make an educated decision regarding which plan was best for them. Over 126,000 customers were solicited. The direct-mail solicitation process ended in September. As of the end of 2012, over 1,500 customers signed up to become Time-of-Day plan participants. Through late 2012 and early 2013, Idaho Power will evaluate initial study findings and will file its report with the IPUC in spring 2013.

Third-Party, Independent Verification

Idaho Power recognizes that the timely, credible, and transparent evaluation of all its DSM programs is critical in ensuring 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 being administered effectively and best-practice specifications are met. Reports from these evaluations provide valuable recommendations for program improvement and validate energy savings achieved through the company's DSM programs.

In 2012, impact evaluations were completed by third-party contractors on the following six DSM programs: Building Efficiency; Easy Upgrades; H&CE Program; See ya later, refrigerator®; Weatherization Solutions for Eligible Customers; and WAQC. A process evaluation was completed for the A/C Cool Credit program. Primary research was conducted on the Irrigation Efficiency Rewards and A/C Cool Credit programs. 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.

Throughout 2012, Idaho Power participated with NEEA to conduct several third-party assessments. These studies included the Residential Building Stock Assessment, an evaluation of the Northwest DHP Initiative, assessment of four Residential Consumer Electronics products, and several market effects evaluations in the residential, commercial, and industrial sectors. Copies of these reports can be found in *Supplement 2: Evaluation*.

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 for the establishment of 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 2013, Idaho Power will contract with third-party evaluators to complete process evaluations for the Energy Efficient Lighting, ENERGY STAR Homes Northwest, H&CE Program, Weatherization Solutions for Eligible Customers, WAQC, Easy Upgrades, and FlexPeak Management programs. The *2010–2013 Evaluation Plan* can be found in *Supplement 2: Evaluation*.

Energy Efficiency Potential Study

Idaho Power contracted with EnerNOC Utility Solutions Consulting (EnerNOC Solutions) to provide an analysis of the technical, economic, and achievable energy efficiency over the next 20 years in the company's service area. In addition, EnerNOC Solutions provided an executable dynamic model that supports the potential study and allows for the testing of sensitivity. EnerNOC Solutions also updated load profiles by sector, program, and end use. Because of their disproportionate energy use, special-contract customer potential was analyzed separately. The achievable energy efficiency potential by sector is shown as follows:

- Residential achievable potential projects: 189,469 MWh in 2017, or approximately 21.6 aMW. This level of potential is equivalent to 3.5 percent of the residential baseline projection for that year. By 2032, the cumulative achievable projection savings are 701,104 MWh, 10.8 percent of the baseline projection. A copy of the complete report is included in *Supplement 2: Evaluation*.

- Commercial achievable potential projects: 194,418 MWh, or approximately 22.2 aMW, of energy savings in 2017, which corresponds to 5.2 percent of the commercial baseline projection for that year. By 2032, the cumulative achievable projection savings are 633,771 MWh, 13.9 percent of baseline projection. A copy of the complete report is included in *Supplement 2: Evaluation*.

- Industrial achievable potential projects: 174,526 MWh, or approximately 19.9 aMW, of energy savings in 2017, which corresponds to 18 percent of the industrial baseline projection for that year. By 2032, the cumulative achievable projection savings are 488,465 MWH, 12.8 percent of baseline projection. A copy of the complete report is included in *Supplement 2: Evaluation*.

- Irrigation achievable potential projects: 36,360 MWh, or approximately 4.2 aMW, of energy savings in 2017, which corresponds to 6.8 percent of the irrigation baseline projection for that year. By 2032, the cumulative achievable projection savings are 229,821 MWh, 11.3 percent of baseline projection. A copy of the complete report is included in *Supplement 2: Evaluation*.

Achievable potential across the residential, commercial, industrial, and irrigation sectors is projected to be 594,772 MWh, or 67.9 aMW, in 2017 and increases to 234.4 aMW by 2032. This represents 4.3 percent of the baseline projection in 2017 and 12.2 percent in 2032. By 2032, achievable potential offsets 12.2 percent of the growth in the baseline projection. A copy of the complete report is included 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 2012, IDACORP, Inc., and Idaho Power issued the inaugural sustainability report: *Balance*. 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 groundbreaking raptor protection programs and innovative methods to gather and analyze data in waterways supporting company operations. IDACORP plans to issue its second sustainability report in May 2013.

The Idaho Power Green Team championed sustainable activities conducted by Idaho Power and its employees. In 2012, projects included coordinating monthly Green Bag educational seminars, supporting company-wide alternative transportation efforts, and implementing a project at the company café to compost the organic portion of its wastes.

Idaho Power's corporate headquarters (CHQ) continued to participate in the strategic elimination of power loads during peak use through the FlexPeak Management program. In August 2010, Idaho Power entered into an agreement with EnerNOC, Inc., to enroll the CHQ in FlexPeak Management—Idaho Power's commercial/industrial demand response program. EnerNOC enlists and contracts with Idaho Power's commercial and industrial customers to voluntarily reduce their electricity use primarily

during times of Idaho Power system peaks. EnerNOC provides participants with auditing assistance, energy-monitoring software, demand-reduction performance monitoring, coaching, and other related services. EnerNOC works closely with its program participants to estimate their reduction potential accurately. Unlike other program participants, Idaho Power does not receive any financial incentives to participate.

In 2012, Idaho Power committed to reduce its electrical consumption by 100 kW during demand-reduction events. The CHQ participated in all four of the FlexPeak events, which were initiated in June, July, and August. The average reduction achieved by the facility across the four events was 425 kW. The CHQ exceeded the committed reduction in all events. The maximum hourly reduction was 775 kW, achieved in July. Reductions were 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 use if necessary.

In 2012, Idaho Power began an aggressive lighting retrofit in several of its facilities. This included upgraded lighting at eight of its hydroelectric power plants, the CHQ building, and two operations centers. Total projected first-year electrical savings were approximately 562,100 kWh. These savings should continue for 10 to 12 years.

Changes at the power plants included replacing magnetic ballasts and T-12 lamps with more efficient electronic ballasts and T-8 lamps. At the Hells Canyon Dam, external mercury vapor fixtures were replaced with LED fixtures.

Energy-efficient T-8 lighting was installed in all of the CHQ's hallways, basement, loading dock, stairwells, restrooms, coffee rooms, copy rooms, first/second floor light wall, electrical rooms, data rooms, and penthouse. Efficient electronic ballasts and lamps replaced the inefficient magnetic ballasts and lamps. Wall-, ceiling-, or fixture-mounted occupancy sensors were installed as appropriate. Halogen art display fixtures were retrofitted with LED lamps. In elevator shafts and pump rooms, CFLs replaced incandescent lamps.

The lighting retrofit and space remodel at the Payette Operations Center continued during 2012 with the removal of T-12 lighting, installation of T-8 lighting retrofit packages, and a decrease in cubicle heights to 53 inches for improved natural lighting. In addition, the Boise Center West (BCW) project installed dimmable LED lighting fixtures throughout the new data center.

In 2013, the BCW project will incorporate several energy-efficient attributes. Plans include using indirect clerestory windows, placing Dyson hand-insertion electric air dryers and water-saving features within the restrooms.

During 2012, planning continued for the 2013 installation of a new energy-efficient chilled water system for the CHQ. Although remodeling of the CHQ (carpets, blinds, lighting upgrade, paint, and new lowered cube height) was postponed for one year, the company anticipates continuing this project through 2016. Sub-station lighting retrofits were initiated in 2012 and will continue to be a focal point through at least 2020.

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APPENDICES

This report includes five appendices. Appendix 1 contains financial information for 2012, showing the beginning balance, ending balance, and the expenditures for the Idaho and Oregon Riders, Idaho Custom Efficiency incentive payments, 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 2012. 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 *2012 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, Idaho Custom Efficiency, and NEEA funding balances

Idaho Energy Efficiency Rider		
2012 Beginning Balance	$	(5,321,997)
2012 Funding plus Accrued Interest		35,101,807
Total 2012 Funds		**29,779,810**
2012 Expenses		(25,822,044)
2011 AC Cool Credit Disallowance		82,856
2012 Year-End Balance	**$**	**4,040,622**
Oregon Energy Efficiency Rider		
2012 Beginning Balance	$	(3,537,441)
2012 Funding plus Accrued Interest		1,004,836
Total 2012 Funds		**(2,532,605)**
2012 Expenses		(1,382,330)
2012 Year-End Balance	**$**	**(3,914,935)**
Idaho Custom Efficiency Incentives		
2012 Beginning Balance Accrued Incentives	$	(7,018,385)
2012 Beginning Balance Accrued Interest		(212,339)
2012 Total Beginning Balance	**$**	**(7,230,724)**
2012 Incentives Accrued		(6,019,222)
2012 Interest Accrued		(836,255)
2012 Year-End Balance	**$**	**(14,086,201)**
NEEA Payments and Escrow Credit Funds Balance		
2012 Idaho Power Contractual Obligation[a]	$	3,379,756
2012 Year-End Balance	**$**	**3,379,756**

[a] Idaho Power shall prepay estimated expenses quarterly, where the amount shall be amortized over the respective quarter. Funding of NEEA, approved by IPUC Order 31080 dated 5/12/10. Reconciliation between the estimated expenditures and the actual expenditures for the quarter will be completed 30 days after the quarter end or by March 1 for year-end. A true-up of the variance will be included in the next quarter's invoice, not to exceed 125 percent of its five-year total direct-funding contribution.

Appendix 2. 2012 DSM expenses by funding source (dollars)

Sector/Program	Idaho Rider	Oregon Rider	Idaho Power	Total Program
Energy Efficiency/Demand Response				
Residential				
A/C Cool Credit[a]	$ 4,804,566	$ 92,810	$ 830,618	**$ 5,727,994**
Ductless Heat Pump Pilot	153,017	6,850	0	**159,867**
Energy Efficient Lighting	1,110,329	16,507	0	**1,126,836**
Energy House Calls	272,666	3,217	0	**275,884**
ENERGY STAR® Homes	450,727	2,458	0	**453,186**
Heating & Cooling Efficiency Program	175,483	6,798	0	**182,281**
Home Improvement Program	385,091	0	0	**385,091**
Home Products Program	640,098	18,829	105	**659,032**
Oregon Residential Weatherization	0	4,051	465	**4,516**
Rebate Advantage	34,926	2,316	0	**37,241**
See Ya Later Refrigerator	596,167	16,979	0	**613,146**
Weatherization Assistance for Qualified Customers	0	0	1,370,141	**1,370,141**
Weatherization Solutions for Eligible Customers	1,048,461	0	22,094	**1,070,556**
Commercial/Industrial				
Building Efficiency	1,579,121	13,451	0	**1,592,572**
Comprehensive Lighting	64,094	0	0	**64,094**
Easy Upgrades	5,150,422	199,331	0	**5,349,753**
FlexPeak Management[a]	98,973	150,489	2,760,360	**3,009,822**
Oregon Commercial Audit	0	12,470	0	**12,470**
Custom Efficiency[b]	923,050	115,866	6,053,665	**7,092,581**
Irrigation				
Irrigation Efficiency Rewards	1,978,729	360,689	33,782	**2,373,201**
Irrigation Peak Rewards[a]	1,309,107	95,863	11,018,394	**12,423,364**
Energy Efficiency/Demand Response Total	**$ 20,775,027**	**$ 1,118,975**	**$ 22,089,624**	**$ 43,983,625**
Market Transformation				
NEEA[c]	3,210,768	168,988	0	**3,379,756**
Market Transformation Total	**$ 3,210,768**	**$ 168,988**	**$ 0**	**$ 3,379,756**
Other Programs and Activities				
Residential				
Residential Economizer Pilot[d]	93,593	(101)	0	**93,491**
Residential Energy Efficiency Education Initiative	165,919	8,819	0	**174,738**
Commercial				
Commercial Energy Efficiency Education Initiative	70,099	3,689	0	**73,788**
Other				
Energy Efficiency Direct Program Overhead	271,622	14,329	0	**285,951**
Other Programs and Activities Total	**$ 601,233**	**$ 26,736**	**$ 0**	**$ 627,968**
Indirect Program Expenses				
Residential Overhead	172,819	9,051	0	**181,869**
Commercial/Industrial/Irrigation Overhead	171,673	9,096	7,784	**188,554**
Energy Efficiency Accounting and Analysis	898,944	47,050	142,241	**1,088,236**
Energy Efficiency Advisory Group	2,710	142	0	**2,853**
Special Accounting Entries[e]	(93,985)	2,291	(34,308)	**(126,002)**
Indirect Program Expenses Total	**$ 1,152,161**	**$ 67,631**	**$ 115,718**	**$ 1,335,509**
Totals	**$ 25,739,188**	**$ 1,382,330**	**$ 22,205,341**	**$ 49,326,859**

[a] Per order 32426 the IPUC determined that IPC may recover 100 percent of its Idaho demand response incentives through the PCA mechanism.
[b] Idaho Custom Efficiency incentives, Idaho Power balance of $6,053,665, not included in base rates for 2012.
[c] NEEA Funding addressed in IPUC per Order No. 31080, dated May 12, 2010. 2013 annual expense expected at $3.8 million (see footnote, Appendix 1 for additional information).
[d] Residential Economizer 2011 Oregon Rider balance of $101 was reclassified to Idaho Rider in 2012.
[e] Special Accounting Entries, Idaho Power accrual amount of ($34,146), not included in base rates for 2012.

Appendix 3. 2012 DSM program activity

Program	Participants		Total Costs: Utility[b]	Total Costs: Resource[c]	Savings: Annual Energy (kWh)	Savings: Peak Demand[d] (MW)	Measure Life (Years)	Nominal Levelized Costs[a]: Utility ($/kWh)	Nominal Levelized Costs[a]: Total Resource ($/kWh)
Demand Response									
A/C Cool Credit	36,454	homes	$ 5,727,994	$ 5,727,994	n/a	44.9	n/a	n/a	n/a
Irrigation Peak Rewards[1]	2,177	service points	12,423,364	12,423,364	n/a	339.9	n/a	n/a	n/a
FlexPeak Management	102	sites	3,009,822	3,009,822	n/a	52.8	n/a	n/a	n/a
Total			**$ 21,161,180**	**$ 21,161,180**	**n/a**	**437.6**			
Energy Efficiency									
Residential									
Ductless Heat Pump Pilot	127	homes	159,867	617,833	444,500		20	$ 0.024	$ 0.094
Energy Efficient Lighting	925,460	bulbs	1,126,836	2,407,355	16,708,659		5	0.012	0.025
Energy House Calls	668	homes	275,884	275,884	1,192,039		18	0.016	0.016
ENERGY STAR® Homes Northwest	410	homes	453,186	871,310	537,447		35	0.046	0.089
Heating & Cooling Efficiency Program	141	projects	182,281	676,530	688,855		20	0.018	0.066
Home Improvement Program	840	insulation projects	385,091	812,827	457,353		45	0.044	0.093
Home Products Program	16,675	appliances/fixtures	659,032	817,924	887,222		14	0.061	0.075
Oregon Residential Weatherization	5	home	4,516	11,657	11,985		30	0.022	0.022
Rebate Advantage	35	homes	37,241	71,911	187,108		25	0.012	0.024
See ya later, refrigerator®	3,176	refrigerators/freezers	613,146	613,146	1,576,426		8	0.046	0.046
Weatherization Assistance for Qualified Customers	238	homes/non-profits	1,370,141	1,819,945	648,304		25	0.129	0.172
Weatherization Solutions for Eligible Customers	141	homes	1,070,556	1,070,556	257,466		25	0.254	0.254
Sector Total			**$ 6,337,777**	**$ 10,066,879**	**23,597,363**		**9**	**$ 0.029**	**$ 0.046**
Commercial									
Building Efficiency	84	projects	1,592,572	8,204,883	20,450,037	2.3	12	0.007	0.036
Easy Upgrades	1,838	projects	5,349,753	9,245,297	41,568,672	4.7	12	0.012	0.020
Oregon Commercial Audits	14	audits	12,470	12,470					
Sector Total			**$ 6,954,795**	**$ 17,462,650**	**62,018,709**	**7.1**	**12**	**$ 0.010**	**$ 0.025**
Industrial									
Custom Efficiency[2]	126	projects	7,092,581	12,975,629	54,253,106	7.6	12	0.012	0.021
Sector Total			**$ 7,092,581**	**$ 12,975,629**	**54,253,106**	**7.6**	**12**	**$ 0.012**	**$ 0.021**
Irrigation									
Irrigation Efficiency Rewards[3]	908	projects	2,373,201	11,598,185	12,617,164	3.1	8	0.022	0.110
Sector Total			**$ 2,373,201**	**$ 11,598,185**	**12,617,164**	**3.1**	**8**	**$ 0.022**	**$ 0.110**

Appendix 3. 2012 DSM program activity (continued)

Program	Participants	Total Costs		Savings		Measure Life (Years)	Nominal Levelized Costs[a]	
		Utility[b]	Resource[c]	Annual Energy (kWh)	Peak Demand[d] (MW)		Utility ($/kWh)	Total Resource ($/kWh)
Market Transformation								
Northwest Energy Efficiency Alliance[4]		$ 3,379,756	$ 3,379,756	17,741,430				
Other Programs and Activities								
Residential								
Residential Economizer		93,491	93,491					
Residential Energy Efficiency Education Initiative		174,738	174,738					
Commercial								
Commercial Education Initiative		73,788	73,788					
Comprehensive Lighting[5]		64,094	64,094					
Other								
Energy Efficiency Direct Program Overhead		285,951	285,951					
Local Energy Efficiency Funds								
Total Program Direct Expense		**$ 47,991,350**	**$ 77,336,341**	**170,227,773**	**455.3**			
Indirect Program Expenses		1,335,509						
Total DSM Expense		**$ 49,326,859**						

[a] Levelized Costs are based on financial inputs from Idaho Power's 2011 IRP and calculations include line-loss adjusted energy savings.
[b] The Total Utility Cost is all cost incurred by Idaho Power to implement and manage a DSM program.
[c] The total resource cost (TRC) is the total expenditures for a DSM program from the point of view of Idaho Power and its customers as a whole.
[d] Summer Peak Demand is reported where program MW reduction is documented. Demand response program reductions are reported with 13-percent peak loss assumptions.
[1] Peak demand represents enrolled capacity of the program during summer 2012.
[2] Custom Efficiency savings includes 19 Green Motors participants totaling 54,154 kWh of annual savings, but not in project totals.
[3] Irrigation Efficiency includes 23 Green Motors participants totaling 36,039 kWh of annual savings, not counted in project totals.
[4] Savings are preliminary estimates provided by NEEA.
[5] Comprehensive Lighting annual savings of 447,620 kWh from 6 projects are included in Easy Upgrades savings totals. For the combined cost-effectiveness analysis, see Easy Upgrades in Supplement 1.

Appendix 4. Historical DSM expense and performance 2002–2012

Program/Year	Participants	Total Costs: Utility Cost[c]	Total Costs: Resource Cost[d]	Savings and Demand Reduction: Annual Energy (kWh)	Savings and Demand Reduction: Average Energy[e] (aMW)	Peak Demand[f] (MW)	Measure Life (Years)	Levelized Costs[a]: Total Utility ($/kWh)	Levelized Costs[a]: Total Resource ($/kWh)	Program Life Benefit/ Cost Ratios[b]: Utility	Program Life Benefit/ Cost Ratios[b]: Total Resource
Demand Response											
A/C Cool Credit											
2003	204	$ 275,645	$ 275,645			0.0					
2004	420	287,253	287,253			0.5					
2005	2,369	754,062	754,062			3.1					
2006	5,369	1,235,476	1,235,476			6.3					
2007	13,692	2,426,154	2,426,154			12.2					
2008	20,195	2,969,377	2,969,377			25.5					
2009	30,391	3,451,988	3,451,988			38.5					
2010	30,803	2,002,546	2,002,546			39.0					
2011	37,728	2,896,542	2,896,542			24.0					
2012	36,454	5,727,994	5,727,994			44.9					
Total		**$ 22,027,036**	**$ 22,027,036**							**1.33**	**1.33**
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					
Total		**$ 7,498,913**	**$ 7,498,913**							**1.22**	**1.22**
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	13,514,246			249.7					
2011	2,342	12,086,222	12,086,222			320.0					
2012	2,433	12,423,364	12,423,364			339.9					
Total		**$ 53,680,830**	**$ 53,864,250**							**1.79**	**1.72**

Appendix 4. Historical DSM expense and performance 2002–2012 (continued)

Program/Year	Participants	Total Costs: Utility Cost[c]	Total Costs: Resource Cost[d]	Savings and Demand Reduction: Annual Energy (kWh)	Savings and Demand Reduction: Average Energy[e] (aMW)	Peak Demand[f] (MW)	Measure Life (Years)	Levelized Costs[a]: Total Utility ($/kWh)	Levelized Costs[a]: Total Resource ($/kWh)	Program Life Benefit/ Cost Ratios[b]: Utility	Program Life Benefit/ Cost Ratios[b]: Total Resource
Residential Efficiency											
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		
Total	**458**	**$ 742,286**	**$ 2,059,030**	**1,676,180**			**20**	**$ 0.036**	**$ 0.105**	**4.22**	**1.44**
Energy Efficiency Packets											
2002	2,925	755	755	155,757	0.02		7	0.001	0.001		
Total	**2,925**	**$ 755**	**$ 755**	**155,757**			**7**	**$ 0.001**	**$ 0.001**		
Energy Efficient Lighting											
2002	11,618	243,033	310,643	3,299,654	0.38		7	0.012	0.015		
2003	12,662	314,641	464,059	3,596,150	0.41		7	0.014	0.021		
2004											
2005	43,760	73,152	107,810	1,734,646	0.20		7	0.007	0.010		
2006	178,514	298,754	539,877	6,302,794	0.72		7	0.008	0.014		
2007	219,739	557,646	433,626	7,207,439	0.82		7	0.012	0.017		
2008	436,234	1,018,292	793,265	14,309,444	1.63		7	0.011	0.013		
2009	549,846	1,207,366	1,456,796	13,410,748	1.53		5	0.020	0.024		
2010	1,190,139	2,501,278	3,976,476	28,082,738	3.21		5	0.020	0.031		
2011	1,039,755	1,719,133	2,764,623	19,694,381	2.25		5	0.015	0.024		
2012	925,460	1,126,836	2,407,355	16,708,659	1.91		5	0.012	0.025		
Total	**4,607,727**	**$ 9,060,131**	**$ 13,254,530**	**114,346,653**		**0.0**	**5**	**$ 0.017**	**$ 0.025**	**4.47**	**3.05**
Energy House Calls											
2002	17	26,053	26,053	25,989	0.00		20	0.082	0.082		
2003	420	167,076	167,076	602,723	0.07		20	0.023	0.023		
2004	1,708	725,981	725,981	2,349,783	0.27		20	0.025	0.025		
2005	891	375,610	375,610	1,775,770	0.20		20	0.017	0.017		
2006	819	336,701	336,701	777,244	0.09		20	0.035	0.035		
2007	700	336,372	336,372	699,899	0.08		20	0.039	0.039		
2008	1,099	484,379	484,379	883,038	0.10		20	0.045	0.045		
2009	1,266	569,594	569,594	928,875	0.11		20	0.052	0.052		

Appendix 4. Historical DSM expense and performance 2002–2012 (continued)

Program/Year	Participants	Total Costs: Utility Cost[c]	Total Costs: Resource Cost[d]	Savings and Demand Reduction: Annual Energy (kWh)	Savings and Demand Reduction: Average Energy[e] (aMW)	Peak Demand[f] (MW)	Measure Life (Years)	Levelized Costs[a]: Total Utility ($/kWh)	Levelized Costs[a]: Total Resource ($/kWh)	Program Life Benefit/ Cost Ratios[b]: Utility	Program Life Benefit/ Cost Ratios[b]: Total Resource
Residential Efficiency											
Energy House Calls											
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		
Total	**10,071**	**$ 4,543,355**	**$ 4,543,355**	**11,648,019**			**18**	**$ 0.034**	**$ 0.034**	**3.05**	**3.05**
ENERGY STAR® Homes Northwest											
2003		13,597	13,597	0							
2004	44	140,165	335,437	101,200	0.01	0.1	25	0.103	0.246		
2005	200	253,105	315,311	415,600	0.05	0.4	25	0.045	0.056		
2006	439	469,609	602,651	912,242	0.10	0.9	25	0.038	0.049		
2007	303	475,044	400,637	629,634	0.07	0.6	25	0.056	0.047		
2008	254	302,061	375,007	468,958	0.05	0.6	25	0.048	0.059		
2009	474	355,623	498,622	705,784	0.08	1.1	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		
Total	**3,062**	**$ 3,097,757**	**$ 4,643,317**	**5,382,155**			**35**	**$ 0.039**	**$ 0.058**	**3.77**	**2.51**
Heating & Cooling Efficiency Program											
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		
Total	**1,200**	**$ 2,163,300**	**$ 4,241,532**	**4,364,621**			**20**	**$ 0.041**	**$ 0.080**	**3.49**	**1.78**

Appendix 4. Historical DSM expense and performance 2002–2012 (continued)

Program/Year	Participants	Total Costs: Utility Cost[c]	Total Costs: Resource Cost[d]	Savings and Demand Reduction: Annual Energy (kWh)	Savings and Demand Reduction: Average Energy[e] (aMW)	Peak Demand[f] (MW)	Measure Life (Years)	Levelized Costs[a]: Total Utility ($/kWh)	Levelized Costs[a]: Total Resource ($/kWh)	Program Life Benefit/ Cost Ratios[b]: Utility	Program Life Benefit/ Cost Ratios[b]: Total Resource	
Residential Efficiency												
Home Improvement Program												
2008	282	$ 123,454	$ 157,866	317,814	0.04		25	$ 0.029	$ 0.037			
2009	1,188	321,140	550,148	1,338,876	0.15		25	0.019	0.032			
2010	3,537	944,716	2,112,737	3,986,199	0.46		45	0.016	0.035			
2011	2,275	666,041	2,704,816	917,519	0.10		45	0.038	0.155			
2012	840	385,091	812,827	457,353	0.05		45	0.044	0.093			
Total	**8,122**	**$ 2,440,442**	**$ 6,338,394**	**7,017,761**			**45**	**$ 0.022**	**$ 0.058**	**3.15**	**1.21**	2
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			
Total	**61,426**	**$ 2,900,964**	**$ $4,686,194**	**5,995,781**			**14**	**$ 0.048**	**$ 0.078**	**2.26**	**1.40**	
Oregon Residential Weatherization												
2002	24	(662)	23,971	4,580			25	0.010	0.389			
2003		(943)										3
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									4
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			
Total	**51**	**$ 41,525**	**$ 103,653**	**81,794**			**30**	**$ 0.036**	**$ 0.089**	**3.88**	**1.55**	5

Appendix 4. Historical DSM expense and performance 2002–2012 (continued)

Program/Year	Participants	Total Costs: Utility Cost[c]	Total Costs: Resource Cost[d]	Savings and Demand Reduction: Annual Energy (kWh)	Savings and Demand Reduction: Average Energy[e] (aMW)	Peak Demand[f] (MW)	Measure Life (Years)	Levelized Costs[a]: Total Utility ($/kWh)	Levelized Costs[a]: Total Resource ($/kWh)	Program Life Benefit/ Cost Ratios[b]: Utility	Program Life Benefit/ Cost Ratios[b]: Total Resource
Residential Efficiency											
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		
Total	**760**	**$ 548,199**	**$ 1,235,052**	**2,981,920**			**25**	**$ 0.014**	**$ 0.031**	**8.71**	**3.87**
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		
Total	**11,438**	**$ 2,138,019**	**$ 2,138,019**	**5,989,387**			**8**	**$ 0.052**	**$ 0.052**	**1.70**	**1.70**
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		
Total	**362**	**$ 2,302,931**	**$ 2,302,931**	**1,995,368**			**25**	**$ 0.086**	**$ 0.086**	**1.47**	**1.47**
Window AC Trade-Up Pilot											
2003	99	6,687	10,492	14,454			12	0.051	0.079		
Total	**99**	**$ 6,687**	**$ 10,492**	**14,454**			**12**	**$ 0.051**	**$ 0.079**		

Appendix 4. Historical DSM expense and performance 2002–2012 (continued)

Program/Year	Participants	Total Costs: Utility Cost[c]	Total Costs: Resource Cost[d]	Savings and Demand Reduction: Annual Energy (kWh)	Savings and Demand Reduction: Average Energy[e] (aMW)	Peak Demand[f] (MW)	Measure Life (Years)	Levelized Costs[a]: Total Utility ($/kWh)	Levelized Costs[a]: Total Resource ($/kWh)	Program Life Benefit/ Cost Ratios[b]: Utility	Program Life Benefit/ Cost Ratios[b]: Total Resource
Residential—Weatherization Assistance for Qualified Customers (WAQC)											
WAQC—Idaho											
2002	197	$ 235,048	$ 492,139								
2003	208	228,134	483,369								
2004	269	498,474	859,482	1,271,677	0.15		25	$ 0.0290	$ 0.050		
2005	570	1,402,487	1,927,424	3,179,311	0.36		25	0.0330	0.045		
2006	540	1,455,373	2,231,086	2,958,024	0.34		25	0.0370	0.056		
2007	397	1,292,930	1,757,105	3,296,019	0.38		25	0.0290	0.040		
2008	439	1,375,632	1,755,749	4,064,301	0.46		25	0.0250	0.032		
2009	427	1,260,922	1,937,578	4,563,832	0.52		25	0.0210	0.033		
2010	373	1,205,446	2,782,597	3,452,025	0.39		25	0.0260	0.060		
2011	273	1,278,112	1,861,836	2,648,676	0.30		25	0.0360	0.053		
2012	228	1,321,927	1,743,863	621,464	0.02		25	0.1590	0.210		
Total	**3,921**	**$ 11,554,485**	**$ 17,832,228**	**26,055,329**			**25**	**$ 0.0330**	**$ 0.051**	**4.36**	**2.83**
WAQC—Oregon											
2002	31	24,773	47,221	68,323	0.01		25	0.0270	0.051		
2003	29	22,255	42,335	102,643	0.01		25	0.0160	0.031		
2004	17	13,469	25,452	28,436	0.00		25	0.0350	0.067		
2005	28	44,348	59,443	94,279	0.01		25	0.0350	0.047		
2006							25				
2007	11	30,694	41,700	42,108	0.00		25	0.0540	0.074		
2008	14	43,843	74,048	73,841	0.01		25	0.0400	0.068		
2009	10	33,940	46,513	114,982	0.01		25	0.0230	0.031		
2010	27	115,686	147,712	289,627	0.03		25	0.0300	0.038		
2011	14	46,303	63,981	134,972	0.02		25	0.0260	0.035		
2012	10	48,214	76,083	26,840	0.00		25	0.1340	0.212		
Total	**191**	**$ 423,525**	**$ 624,488**	**976,051**			**25**	**$ 0.0323**	**$ 0.048**	**4.26**	**2.89**
WAQC—BPA Supplemental											
2002	75	55,966	118,255	311,347	0.04		25	0.0130	0.028		
2003	57	49,895	106,915	223,591	0.03		25	0.0170	0.036		
2004	40	69,409	105,021	125,919	0.01		25	0.0410	0.062		
Total	**172**	**$ 175,270**	**$ 330,191**	**660,857**			**25**	**$ 0.0200**	**$ 0.037**	**6.73**	**3.57**
WAQC—All Total		**$ 12,153,280**	**$ 18,786,907**	**27,692,237**			**25**	**0.0330**	**0.051**	**4.39**	**2.84**

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Appendix 4. Historical DSM expense and performance 2002–2012 (continued)

Program/Year	Participants	Total Costs: Utility Cost[c]	Total Costs: Resource Cost[d]	Savings and Demand Reduction: Annual Energy (kWh)	Savings and Demand Reduction: Average Energy[e] (aMW)	Peak Demand[f] (MW)	Measure Life (Years)	Levelized Costs[a]: Total Utility ($/kWh)	Levelized Costs[a]: Total Resource ($/kWh)	Program Life Benefit/ Cost Ratios[b]: Utility	Program Life Benefit/ Cost Ratios[b]: Total Resource
Commercial											
Air Care Plus Pilot											
2003	4	$ 5,764	$ 9,061	33,976			10	$ 0.021	$ 0.033		
2004		344	344								
Total	**4**	**$ 6,108**	**$ 9,405**	**33,976**			**10**	**$ 0.022**	**$ 0.034**		
Building Efficiency 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		
Total	**423**	**$ 8,041,743**	**$ 20,394,250**	**59,544,566**			**12**	**$ 0.015**	**$ 0.038**	**6.50**	**2.56**
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	4.4	12	0.011	0.022		
2012	1,838	5,349,753	9,245,297	41,568,672	4.75	4.8	12	0.012	0.020		
Total	**7,099**	**$ 21,104,708**	**$ 48,506,776**	**182,399,866**			**12**	**$ 0.013**	**$ 0.029**	**7.57**	**3.29**
Holiday Lighting											
2008	14	28,782	73,108	259,092	0.03		10	0.014	0.035		
2009	32	33,930	72,874	142,109	0.02		10	0.031	0.066		
2010	25	46,132	65,308	248,865	0.03		10	0.024	0.034		
2011	6	2,568	2,990	66,189	0.01		10	0.004	0.005		
Total	**77**	**$ 111,412**	**$ 214,280**	**716,255**			**10**	**$ 0.019**	**$ 0.037**	**3.70**	**1.92**

Appendix 4. Historical DSM expense and performance 2002–2012 (continued)

Program/Year	Participants	Total Costs: Utility Cost[c]	Total Costs: Resource Cost[d]	Savings and Demand Reduction: Annual Energy (kWh)	Savings and Demand Reduction: Average Energy[e] (aMW)	Peak Demand[f] (MW)	Measure Life (Years)	Levelized Costs[a]: Total Utility ($/kWh)	Levelized Costs[a]: Total Resource ($/kWh)	Program Life Benefit/ Cost Ratios[b]: Utility	Program Life Benefit/ Cost Ratios[b]: Total Resource
Commercial											
Oregon Commercial Audit											
2002	24	$ 5,200	$ 5,200								
2003	21	0	4,000								
2004	7	0	0								
2005	7	5,450	5,450								
2006	6										
2007		1,981	1,981								
2008		58	58								
2009	41	20,732	20,732								
2010	22	5,049	5,049								
2011	12	13,597	13,597								
2012	14	12,470	12,470								
Total	**154**	**$ 64,537**	**$ 68,537**								
Oregon School Efficiency											
2005		86	86								
2006	6	24,379	89,771	223,368	0.03		12	$ 0.012	$ 0.044		
Total	**6**	**$ 24,465**	**$ 89,857**	**223,368**			**12**	**$ 0.012**	**$ 0.044**		
Industrial											
Custom Efficiency											
2003		1,303	1,303								
2004	1	112,311	133,441	211,295	0.02		12	0.058	0.069		
2005	24	1,128,076	3,653,152	12,016,678	1.37		12	0.010	0.033		
2006	40	1,625,216	4,273,885	19,211,605	2.19		12	0.009	0.024		
2007	49	3,161,866	7,012,686	29,789,304	3.40	3.6	12	0.012	0.026		
2008	101	4,045,671	16,312,379	41,058,639	4.69	4.8	12	0.011	0.044		
2009	132	6,061,467	10,848,123	51,835,612	5.92	6.7	12	0.013	0.024		
2010	223	8,778,125	17,172,176	71,580,075	8.17	9.5	12	0.014	0.027		
2011	166	8,783,811	19,830,834	67,979,157	7.76	7.8	12	0.012	0.026		
2012	126	7,092,581	12,975,629	54,253,106	6.19	7.6	12	0.012	0.021		
Total	**862**	**$ 40,790,426**	**$ 92,213,608**	**347,935,471**			**12**	**$ 0.013**	**$ 0.029**	**7.48**	**3.31**

Appendix 4. Historical DSM expense and performance 2002–2012 (continued)

Program/Year	Participants	Total Costs: Utility Cost[c]	Total Costs: Resource Cost[d]	Savings and Demand Reduction: Annual Energy (kWh)	Savings and Demand Reduction: Average Energy[e] (aMW)	Peak Demand[f] (MW)	Measure Life (Years)	Levelized Costs[a]: Total Utility ($/kWh)	Levelized Costs[a]: Total Resource ($/kWh)	Program Life Benefit/ Cost Ratios[b]: Utility	Program Life Benefit/ Cost Ratios[b]: Total Resource
Irrigation											
Irrigation Efficiency Program											
2003	2	$ 41,089	$ 54,609	36,792	0.00	0.0	15	$ 0.106	$ 0.141		
2004	33	120,808	402,978	802,812	0.09	0.4	15	0.014	0.048		
2005	38	150,577	657,460	1,012,883	0.12	0.4	15	0.014	0.062		
2006	559	2,779,620	8,514,231	16,986,008	1.94	5.1	8	0.024	0.073		
2007	816	2,001,961	8,694,772	12,304,073	1.40	3.4	8	0.024	0.103		
2008	961	2,103,702	5,850,778	11,746,395	1.34	3.5	8	0.026	0.073		
2009	887	2,293,896	6,732,268	13,157,619	1.50	3.4	8	0.026	0.077		
2010	753	2,200,814	6,968,598	10,968,430	1.25	3.3	8	0.030	0.096		
2011	880	2,360,304	13,281,492	13,979,833	1.60	3.8	8	0.020	0.113		
2012	908	2,373,201	11,598,185	12,617,164	1.44	3.1	8	0.022	0.110		
Total	**5,837**	**$ 16,425,973**	**$ 62,755,370**	**93,612,009**			**8**	**$ 0.026**	**$ 0.098**	**4.66**	**1.76**
Other Programs											
Building Operator Training											
2003	71	48,853	48,853	1,825,000	0.21		5	0.006	0.006		
2004	26	43,969	43,969	650,000	0.07		5	0.014	0.014		
2005	7	1,750	4,480	434,167	0.05		5	0.001	0.002		
Total	**104**	**$ 94,572**	**$ 97,302**	**2,909,167**			**5**	**$ 0.007**	**$ 0.007**		
Commercial Education Initiative											
2005		3,497	3,497								
2006		4,663	4,663								
2007		26,823	26,823								
2008		72,738	72,738								
2009		120,584	120,584								
2010		68,765	68,765								
2011		89,856	89,856								
2012		73,788	73,788								
Total		**$ 460,714**	**$ 460,714**								

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Appendix 4. Historical DSM expense and performance 2002–2012 (continued)

Program/Year	Participants	Total Costs		Savings and Demand Reduction				Levelized Costs[a]		Program Life Benefit/ Cost Ratios[b]	
		Utility Cost[c]	Resource Cost[d]	Annual Energy (kWh)	Average Energy[e] (aMW)	Peak Demand[f] (MW)	Measure Life (Years)	Total Utility ($/kWh)	Total Resource ($/kWh)	Utility	Total Resource
Other Programs											
Comprehensive Lighting											
2011		$ 2,404	$ 2,404								
2012		64,094	64,094								
Total		**$ 66,498**	**$ 66,498**								
Distribution Efficiency Initiative											
2005		21,552	43,969								
2006		24,306	24,306								
2007		8,987	8,987								
2008		(1,913)	(1,913)								
Total		**$ 52,932**	**$ 75,349**								
DSM Direct Program Overhead											
2007		56,909	56,909								
2008		169,911	169,911								
2009		164,957	164,957								
2010		117,874	117,874								
2011		210,477	210,477								
2012		285,951	285,951								
Total		**$ 1,006,079**	**$ 1,006,079**								
Other C&RD and CRC BPA											
2002		55,722	55,722								
2003		67,012	67,012								
2004		108,191	108,191								
2005		101,177	101,177								
2006		124,956	124,956								
2007		31,645	31,645								
2008		6,950	6,950								
Total		**$ 495,654**	**$ 495,654**								

Appendix 4. Historical DSM expense and performance 2002–2012 (continued)

Program/Year	Participants	Total Costs: Utility Cost[c]	Total Costs: Resource Cost[d]	Savings and Demand Reduction: Annual Energy (kWh)	Savings and Demand Reduction: Average Energy[e] (aMW)	Peak Demand[f] (MW)	Measure Life (Years)	Levelized Costs[a]: Total Utility ($/kWh)	Levelized Costs[a]: Total Resource ($/kWh)	Program Life Benefit/ Cost Ratios[b]: Utility	Program Life Benefit/ Cost Ratios[b]: Total Resource
Other Programs											
Residential Economizer Pilot											
2011		$ 101,713	$ 101,713								
2012		93,491	93,491								
Total		**$ 195,204**	**$ 195,204**								
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								
Total		**$ 965,270**	**$ 965,270**								
Solar 4R Schools											
2009		42,522	45,522								
Total		**$ 42,522**	**$ 45,522**								
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		
Total	**544**	**$ 84,285**	**$ 132,961**	**234,326**			**14**	**$ 0.037**	**$ 0.058**	**2.95**	**1.87**

Appendix 4. Historical DSM expense and performance 2002–2012 (continued)

Program/Year	Participants	Total Costs		Savings and Demand Reduction		Peak Demand[f] (MW)	Measure Life (Years)	Levelized Costs[a]		Program Life Benefit/ Cost Ratios[b]	
		Utility Cost[c]	Resource Cost[d]	Annual Energy (kWh)	Average Energy[e] (aMW)			Total Utility ($/kWh)	Total Resource ($/kWh)	Utility	Total Resource
Market Transformation											
NEEA											
2002		$ 1,286,632	$ 1,286,632	12,925,450	1.48						
2003		1,292,748	1,292,748	11,991,580	1.37						
2004		1,256,611	1,256,611	13,329,071	1.52						
2005		476,891	476,891	16,422,224	1.87						
2006		930,455	930,455	18,597,955	2.12						
2007		893,340	893,340	28,601,410	3.27						
2008		942,014	942,014	21,024,279	2.40						
2009		968,263	968,263	10,702,998	1.22						
2010		2,391,217	2,391,217	21,300,366	2.43						
2011		3,108,393	3,108,393	20,547,192	2.35						
2012		3,379,756	3,379,756	17,741,430	2.03						
Total		**$ 16,926,319**	**$ 16,926,319**	**193,183,955**							
Consumer Electronic Initiative											
2009		160,762	160,762								
Total		**$ 160,762**	**$ 160,762**								
Annual Totals											
2002		1,932,520	2,366,591	16,791,100	1.92	0.0					
2003		2,566,228	3,125,572	18,654,343	2.12	0.0					
2004		3,827,213	4,860,912	19,202,780	2.19	6.6					
2005		6,523,348	10,383,577	37,978,035	4.34	44.3					
2006		11,174,181	20,950,110	67,026,303	7.65	44.4					
2007		14,896,816	27,123,018	91,145,357	10.40	58.5					
2008		20,213,216	44,775,829	128,508,579	14.67	74.9					
2009		33,821,062	53,090,852	143,146,365	16.34	236.6					
2010		44,643,541	69,164,744	193,592,637	22.10	357.7					
2011		44,877,117	79,436,532	183,861,776	20.99	419.6					
2012		47,991,352	77,411,652	170,227,773	19.43	453.6					
Total Direct Program		**$ 232,466,593**	**$ 392,689,390**	**1,070,135,047**							

Appendix 4. Historical DSM expense and performance 2002–2012 (continued)

		Total Costs		Savings and Demand Reduction				Levelized Costs[a]		Program Life Benefit/ Cost Ratios[b]	
Program/Year	Participants	Utility Cost[c]	Resource Cost[d]	Annual Energy (kWh)	Average Energy[e] (aMW)	Peak Demand[f] (MW)	Measure Life (Years)	Total Utility ($/kWh)	Total Resource ($/kWh)	Utility	Total Resource
Indirect Program Expenses											
DSM Overhead and Other Indirect											
2002		$ 128,855									
2003		(41,543)									
2004		142,337									
2005		177,624									
2006		309,832									
2007		765,561									
2008		980,305									
2009		1,025,704									
2010		1,189,310									
2011		1,389,135									
2012		1,335,509									
Total		**$ 7,402,629**									
Total Expenses											
2002		2,061,375									
2003		2,524,685									
2004		3,969,550									
2005		6,700,972									
2006		11,484,013									
2007		15,662,377									
2008		21,193,521									
2009		34,846,766									
2010		45,832,851									
2011		46,266,252									
2012		49,326,859									
Total 2002–2012		**$ 239,869,220**									

[a] Levelized Costs are based on financial inputs from IPC's 2009 IRP and calculations include line-loss adjusted energy savings.

[b] Program life B/C ratios are provided for active programs only.

[c] The Total Utility Cost is all cost incurred by IPC to implement and manage a DSM program.

[d] The total resource cost (TRC) is the total expenditures for a DSM program from the point of view of IPC and its customers as a whole.

[e] Average Demand = Annual Energy/8,760 annual hours.

[f] Peak Demand is reported for programs that directly reduce load or measure demand reductions during summer peak season. Peak demand reduction for demand response programs is reported at the generation level assuming 13-percent peak line losses.

[1] Peak MW achieved based on mid-week load reduction schedule.

[2] B/C ratios reflect impacts of the 28-percent realization rate for years 2008–2010 from the ADM 2011 impact evaluation.

[3] Utility cost reflects collected funds on previous bad loan write-offs.

[4] Utility cost reflects only audit and administration costs, there was no further activity in 2006.

[5] Levelized cost calculation includes bad loan write-off expense and funds collected from previously written off loans.

[6] Beginning in 2005, BPA funds were no longer applied to CAP agency payments.

[7] Oregon statutory program. The company does not monitor customer implementation of audit recommendations and thus does not estimate savings for this program. Audit expense not involving outside contractor services are booked to general customer service.

[8] Measure life is weighted life (based on energy savings) of custom option (15 years) and menu options (5 years).

[9] Savings are preliminary estimates provided by NEEA.

Appendix 5. 2012 DSM program activity by state jurisdiction

Program	Idaho Participants	Idaho Utility Costs	Idaho Demand Reduction/ Annual Energy Savings	Oregon Participants	Oregon Utility Costs	Oregon Demand Reduction/ Annual Energy Savings
Demand Response			**(MW)**			**(MW)**
A/C Cool Credit	35,969 homes	$ 5,635,184	44.3	482 homes	$ 92,810	0.6
Irrigation Peak Rewards	2,396 service points	12,325,148	338.0	37 service points	98,216	1.6
FlexPeak Management	97 sites	2,859,333	41.2	5 sites	150,489	11.6
Total		**$ 20,819,664**	**423.5**		**$ 341,515**	**13.9**
Energy Efficiency			**(kWh)**			**(kWh)**
Residential						
Ductless Heat Pump Pilot	122 homes	153,017	427,000	5 homes	6,850	17,500
Energy Efficient Lighting	913,397 bulbs	1,110,329	16,496,129	12,063 bulbs	16,507	212,530
Energy House Calls	620 homes	272,666	1,122,497	48 homes	3,217	69,542
ENERGY STAR® Homes Northwest	410 homes	450,727	537,447	0 homes	2,458	0
Heating & Cooling Efficiency Program	136 projects	175,483	669,607	5 projects	6,798	19,248
Home Improvement Program	840 insulation projects	385,091	457,353	0 insulation projects	0	0
Home Products Program	16,194 appliances/fixtures	640,203	858,202	481 appliances/fixtures	18,829	29,019
Oregon Residential Weatherization	0 home	0	0	5 home	4,516	11,985
Rebate Advantage	33 homes	34,926	173,414	2 homes	2,316	13,694
See ya later, refrigerator®	3,106 refrigerators/freezers	596,167	1,546,075	61 refrigerators/freezers	16,979	30,351
Weatherization Assistance for Qualified Customers	228 homes/non-profits	1,321,927	621,464	10 homes/non-profits	48,214	26,840
Weatherization Solutions for Eligible Customers	141 homes	1,070,556	257,466	0 homes	0	0
Sector Total		**$ 6,211,092**	**23,166,654**		**$ 126,684**	**430,709**
Commercial						
Building Efficiency	84 projects	1,579,121	20,450,037	0 projects	13,451	0
Easy Upgrades	1,787 projects	5,150,422	40,656,743	51 projects	199,331	911,929
Oregon Commercial Audits	0 audits	0	0	14 audits	12,470	0
Sector Total		**$ 6,729,543**	**61,106,780**		**$ 225,252**	**911,929**
Industrial						
Custom Efficiency	122 projects	6,976,700	53,137,995	4 projects	115,881	1,115,111
Sector Total		**$ 6,976,700**	**53,137,995**		**$ 115,881**	**1,115,111**
Irrigation						
Irrigation Efficiency Rewards	869 projects	2,010,822	11,163,948	39 projects	362,378	1,453,216
Sector Total		**$ 2,010,822**	**11,163,948**		**$ 362,378**	**1,453,216**

Appendix 5. 2012 DSM program activity by state jurisdiction (continued)

Program	Idaho			Oregon		
	Participants	Utility Costs	Demand Reduction/ Annual Energy Savings	Participants	Utility Costs	Demand Reduction/ Annual Energy Savings
Market Transformation			**(kWh)**			**(kWh)**
Northwest Energy Efficiency Alliance[1]		$ 3,210,768	16,854,359		$ 168,988	887,072
Other Programs and Activities						
Residential						
Residential Economizer Project		93,593			(101)	
Residential Energy Efficiency Education Initiative		165,919			8,819	
Commercial						
Commercial Education Initiative		70,099			3,689	
Comprehensive Lighting		64,094				
Other						
Energy Efficiency Direct Program Overhead		271,622			14,329	
Total Program Direct Expense		**$ 46,623,916**			**$ 1,367,435**	
Indirect Program Expense		1,260,377			75,132	
Total Annual Savings			**165,429,736**			**4,798,037**
Total DSM Expense		**$ 47,884,293**			**$ 1,442,567**	

[1] Savings are preliminary estimates provided by NEEA. Oregon is credited with 5 percent of annual NEEA savings.