Appendix B—Demand-Side Management 2010 Annual Report

For the 2011 Integrated Resource Plan

June 2011

IDAHO POWER®
An IDACORP Company

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GLOSSARY OF ACRONYMS

aMW—Average Megawatt

A/C—Air Conditioning

ACB, Inc—Advertising Checking Bureau, Inc.

AMI—Advanced Metering Infrastructure

ARRA—American Reinvestment and Recovery Act

B/C—Benefit Cost

BCA—Building Contractors Association

BCASEI—Building Contractors Association of South East Idaho

BCASWI—Building Contractors Association of Southwestern Idaho, Inc.

BOP—Builder Option Package

BOMA—Building Owners and Managers Association International

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

CD—Compact Disc

CEE—Consortium for Energy Efficiency, Inc.

CEERI—CAES Energy Efficiency Resource Initiative

CEI—Continuous Energy Improvement

CEL—Cost-Effective Limit

CFL—Compact Fluorescent Lamp/Light

CHQ—Corporate Headquarters (Idaho Power)

CID—Certified Irrigation Designer

CIS—Customer Information System

CLRIS—Customer and Load Research Information System

COP—Coefficient of Performance

CRM—Customer Relationship Management

CSI—Crime Scene Investigation

CSR—Customer Service Representative

DEER—Database for Energy Efficiency Resources

DHP—Ductless Heat Pump

DOE—Department of Energy

DSM—Demand-Side Management

DSR—Demand-Side Resource

EA4—Energy Audit 4

ECM—Electronically Commutated Motor

EEAG—Energy Efficiency Advisory Group

EECBG—Energy Efficiency Conservation Block Grant

EISA—*Energy Independence and Security Act of 2007*

ESI—Energy Scene Investigation

ETO—Energy Trust of Oregon

EPA—Environmental Protection Agency

FCA—Fixed-Cost Adjustment

GMPG—Green Motors Practice Group

GPM—Gallons per Minute

H&CE—Heating & Cooling Efficiency Program

hp—Horsepower

HPS—Home Performance Specialist

HSPF—Heating Seasonal Performance Factor

HVAC—Heating, Ventilation, and Air Conditioning

ICL—Idaho Conservation League

IDL—Integrated Design Lab in Boise

IECC—International Energy Conservation Code

INL—Idaho National Laboratory

IOER—Idaho Office of Energy Resources

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

kW—Kilowatt

kWh—Kilowatt-hour

LCD—Liquid Crystal Display

LED—Light-Emitting Diode

LEEF—Local Energy Efficiency Funds

LIHEAP—Low Income Home Energy Assistance Program

MOU—Memorandum of Understanding

MHAFB—Mountain Home Air Force Base

MPER—Market Progress Evaluation Report

MW—Megawatt

MWh—Megawatt-hour

NAHB—National Association of Home Builders

NEEM—Northwest Energy Efficient Manufactured Housing Program

NEEA—Northwest Energy Efficiency Alliance

NEMA—National Electrical Manufacturers Association

NPCC—Northwest Power and Conservation Council

NW EM Demo—Northwest Energy Management Demonstration Project

NWES—Northwest ENERGY STAR®

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

PLMA—Peak Load Management Alliance

PTCS—Performance Tested Comfort System

QA—Quality Assurance

RAD—Responsible Appliance Disposal

RAP—Resource Action Programs

RFP—Request for Proposal

RIM—Ratepayer Impact Measure Test

RS&E—Runyon, Saltzman & Einhorn

RTF—Regional Technical Forum

RTUG—Commercial Rooftop Unit Work Group

Rider—Idaho Energy Efficiency Rider and Oregon Energy Efficiency Rider

SCCT—Simple-Cycle Combustion Turbine

SCO—State-Certifying Organization

SEE—Students for Energy Efficiency

SEEARP—State Energy Efficient Appliance Rebate Program

SIC—Standard Industrial Classification Codes

SIR—Savings-to-Investment Ratio

SO_2—Sulfur Dioxide

SRA—Snake River Alliance

SRVBCA—Snake River Valley Building Contractors Association

TLS—Transport Layer Security

TOU—Time-of-Use

TRC—Total Resource Cost

UC—Utility Cost

USA—Utility Service Agreement

W—Watt

WAQC—Weatherization Assistance for Qualified Customers

EXECUTIVE SUMMARY

In 2010, Idaho Power achieved a year of increased energy savings, reduced demand, increased evaluation and research, and enhanced energy efficiency education and customer outreach. Demand-side management (DSM) activities focused on evaluation, savings, program participation, customer satisfaction, and energy efficiency awareness. Through program expansion and improvements, the company's DSM portfolio of programs and energy savings opportunities have increased.

Idaho Power's overall annual energy savings from energy efficiency activities increased in 2010. Energy savings for 2009 were 143,146 megawatt hours (MWh), including the Northwest Energy Efficiency Alliance (NEEA) savings. In 2010, these savings increased over 31 percent to 187,626 MWh. From Idaho Power's energy efficiency programs alone, the savings increased 30 percent, from 132,443 MWh in 2009 to 172,292 MWh in 2010. This is enough energy to supply over 13,500 average homes in Idaho Power's service area. Since 2002, Idaho Power's DSM efforts have accumulated energy savings and demand response reduction greater than any other time in the company's history. Demand reduction for Idaho Power's demand response programs increased from 218 megawatts (MW) in 2009 to 336 MW in 2010. This is more than twice as large as the capacity of Idaho Power's Bennett Mountain peaker plant located near Mountain Home, Idaho. Total expenditures on DSM-related activities increased from almost $35 million in 2009 to $46 million in 2010.

Idaho Power's focus on program evaluation and research in 2010 resulted in process evaluations completed on five commercial, industrial, and irrigation programs and on four residential programs. Two different independent third-party contractors conducted these evaluations. The company also contracted with a third-party consultant to conduct a residential home energy use survey. Idaho Power continued to participate with other research and evaluation organizations, such as NEEA, the Regional Technical Forum (RTF), and the Idaho Integrated Design Lab (IDL in Boise). Also in 2010, Idaho Power developed a new integrated database with a unified table structure to store DSM program data and more effectively track program performance.

The percentage of customers who have a positive perception of Idaho Power's energy efficiency efforts continued to increase, indicated by the results of Idaho Power's 2010 quarterly customer relationship survey. Results showed steady improvement over recent years. Customers' positive perception of Idaho Power's energy efficiency efforts increased from 39 percent in early 2003 to 57 percent in late 2010. Idaho Power continued to expand its customer satisfaction measurement activities, which enabled Idaho Power to identify actionable areas for improvement.

Pursuit of cost-effective energy efficiency is a primary objective for Idaho Power. Energy efficiency and demand response provides economic and operational benefits to the company and its customers. Enhancement of information and programs helps ensure customers have opportunities to learn about their energy use and participate in programs. To optimize the acquisition of cost-effective DSM, Idaho Power has advanced a progressive regulatory model and expanded its educational initiatives. Additionally, Idaho Power played a key role in the launching of the Center for Advanced Energy Studies (CAES) Energy Efficiency Research Initiative (CEERI).

The *Demand Side Management 2010 Annual Report* provides a review of the company's DSM activities and finances throughout 2010, outlines Idaho Power's plans for DSM activities, and satisfies the reporting requirements set out in the Idaho Public Utilities Commission's (IPUC) Order Nos. 29026 and 29419.

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INTRODUCTION

Idaho Power's *Demand Side Management* (DSM) *2010 Annual Report* provides a review of the financial and operational performance of Idaho Power's DSM activities and initiatives for the 2010 calendar year. The company provides a wide range of opportunities for all customer classes to participate in programs, to be informed about energy use, and to reduce their energy consumption.

Idaho Power's two main objectives for DSM programs are to achieve all prudent, cost-effective energy efficiency resources to meet its electrical system's energy and demand needs and to provide customers with programs and information to help them manage their energy usage. The company achieves these objectives through the development, implementation, and prudent management of programs that provide energy and demand savings, and through outreach and education. When possible, Idaho Power implements identical programs in its Idaho and Oregon service areas.

Customer participation in Idaho Power's energy efficiency and demand response programs continues to increase, as do energy savings and demand reduction. The energy savings exclusively from Idaho Power's energy efficiency programs in 2010 was 172,292 megawatt-hour (MWh), a 30 percent increase over the 132,443 MWh energy savings in 2009. Demand reduction for the demand response programs also substantially increased in 2010. Combined, the Irrigation Peak Rewards, FlexPeak Management, and A/C Cool Credit programs resulted in an estimated summer peak reduction of 336 megawatt (MW), which is a 54 percent increase from the reduction achieved in 2009.

In a continuing effort to fulfill the objectives of the Memorandum of Understanding (MOU) which was signed by Idaho Power, Idaho Public Utilities Commission (IPUC) staff, and Idaho's other investor-owned utilities on January 25, 2010, Idaho Power has made several additions to this year's report. Included this year is a new appendix attached to this document, titled Appendix 5. This appendix shows program savings and costs separated into Idaho Power's Idaho and Oregon jurisdictions and by funding source. The other addition is the *2010 DSM Detailed Expenses by Program* table that reports expenses by funding source and cost category. This table is included in *Supplement 1: Cost Effectiveness*. Supplement 1 shows all of the standard cost-effectiveness tests for its programs, including the calculation of the Ratepayer Impact Measure (RIM) Test for each program. The company also continued to enhance its third-party evaluation activities. In 2010, all Idaho Power energy efficiency programs are shown to be cost-effective, and all of its demand response programs are cost-effective from both a long-term perspective and for 2010 under a one-year perspective.

Demand-Side Management Programs

The programs within Idaho Power's energy efficiency and demand response portfolio are offered to four major customer sectors: residential, commercial, industrial, and irrigation. The commercial and industrial energy efficiency programs are made available to customers in either sector. The sector is generally referred to as the commercial/industrial sector in this report.

Idaho Power categorized its DSM activities in four categories: demand response, energy efficiency, market transformation, and other programs and activities. The other programs and activities are generally to provide customer outreach and education concerning the efficient use of electricity. All of these activities are coordinated to forward Idaho Power's enhanced commitment to energy efficiency, demand response, and customer satisfaction.

Figures 1–3 show the historic energy savings, demand reduction, and DSM expenses.

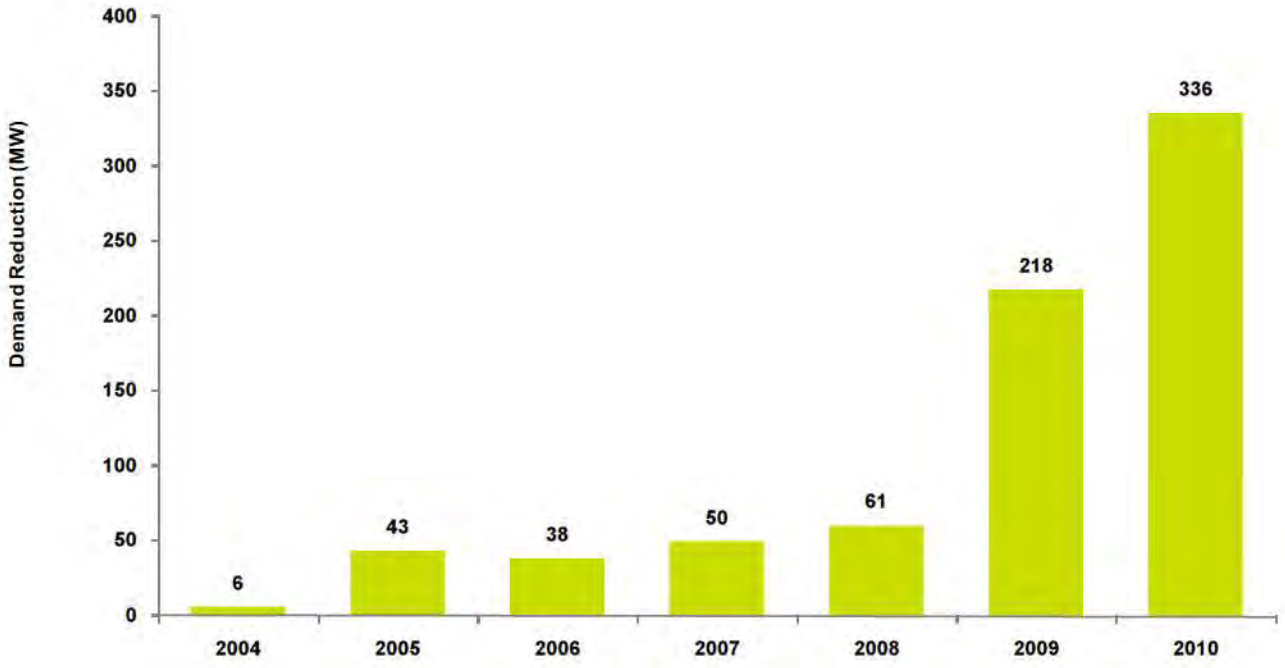

Figure 1. Annual demand response reduction 2004–2010 (MW)

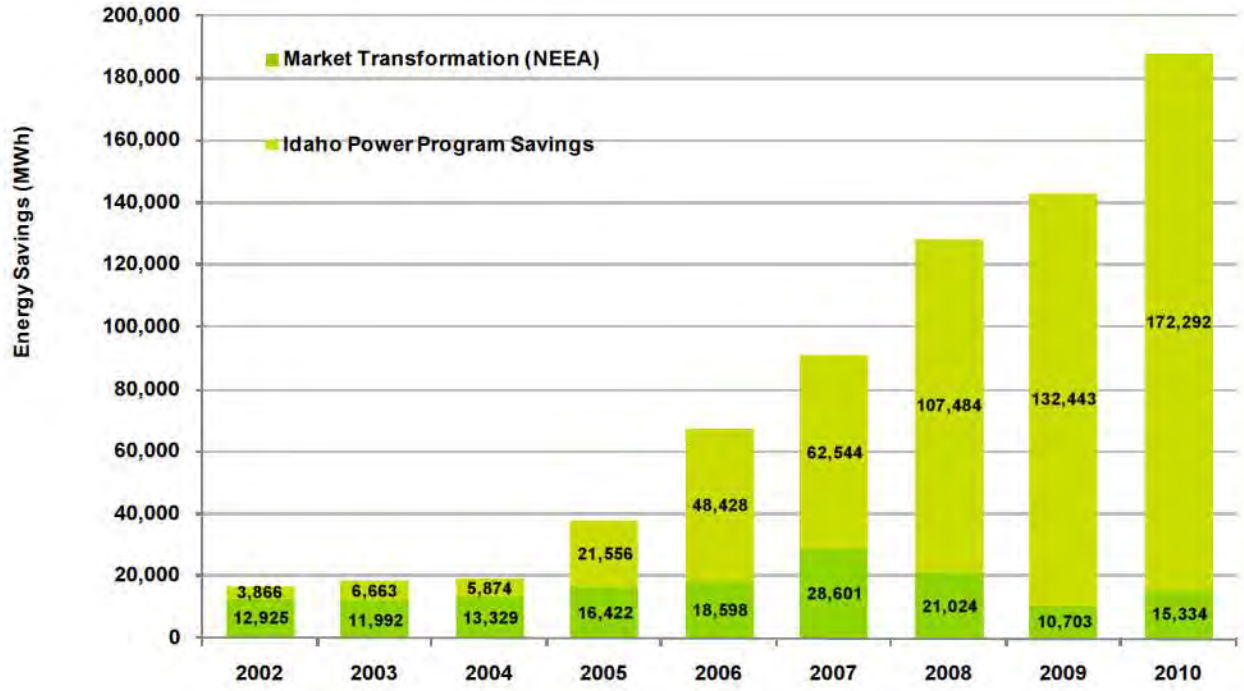

Figure 2. Annual energy savings 2002–2010 (MWh)

Figure 3. DSM expense history 2002–2010 (millions of dollars)

Demand Response Programs

Demand response programs are considered a resource to reduce Idaho Power's demand for electricity at specific times of the day and year when electricity is normally in short supply. The new, all-time winter system peak of 2,528 MW was set on Thursday, December 10, 2009, at 8:00 a.m. The summer peak in 2010 was 2,930 MW set on Monday, June 28, 2010 at 7:00 p.m., below the Idaho Power's all-time system peak of 3,214 MW on Monday, June 30, 2008, at 3:00 p.m. Idaho Power estimates that if it did not have demand response programs, the summer system peak would have been approximately 3,087 MW on July 16, 2010 at 7:00 p.m.

In 2010, Idaho Power's Energy Efficiency and Demand Response personnel worked closely with representatives from other departments within the company on two distinct yet related projects. The first was to optimize the dispatch of the demand response programs on a day-to-day basis to achieve the greatest possible demand reduction over the longest time period while still having all programs dispatched at the time of the system peak. For this goal, representatives from the Energy Efficiency, Power Supply, Compliance, System Dispatch, Regulatory Affairs, Transmission Planning, and Generation Dispatch departments met weekly to determine a potential dispatch schedule for the following week. This team considered the upcoming load forecast, weather forecast, generation availability, and the magnitude of the forecast system peak in order to set a dispatch schedule. The actual decision to dispatch was made on a day-ahead basis by Power Supply Operations.

The second major demand response project for the company in 2010 was to work with members of Load Forecasting, Power Supply Planning, Load Research, Regulatory Affairs, and Energy Efficiency Programs to determine the optimum amount of demand response the company can and should plan for in the long-term Integrated Resource Plan (IRP) process. This research and analysis led to the filing of case number IPC-E-10-46 in Idaho and Advice number 11-1 in Oregon. Both of these regulatory filings

proposed that the company make substantial changes to the method by which the Irrigation Peak Reward participants are paid for their demand reduction.

The measure of demand response program performance is the number of MW of reduced electrical demand that the company needs to serve during system peak periods. In 2010, Idaho Power again offered three demand response programs. The A/C Cool Credit program was offered to residential customers and the FlexPeak Management program was offered to commercial/industrial customers. The Irrigation Peak Rewards program was available for irrigation customers. The Irrigation Peak Rewards program was modified in 2010 to add the ability to dispatch the program on Saturdays and to add the potential for the company to use the program starting at 1:00 p.m. instead of 2:00 p.m. The program season was also extended from ending on July 31 to ending on August 15.

Energy Efficiency Programs

Energy efficiency programs focus on reducing energy usage by identifying homes, buildings, equipment, or components where energy-efficient design, replacement, or repair can yield energy savings. These programs are available to all customer sectors. Project measures range from entire building construction to simple light bulb replacement. Savings from these programs are measured in terms of reduced kilowatt-hour (kWh) usage, or MWh usage for larger projects. These programs usually supply energy benefits 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 are in a position to affect the design of energy usage in products, services, and practices that affect electricity consumption. Idaho Power achieves market transformation savings primarily through its participation in Northwest Energy Efficiency Alliance (NEEA). Idaho Power also supports market transformation accomplished by appliance or building code modifications or enforcement.

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, the Easy Savings® Program, the Commercial Educational Initiative, the Local Energy Efficiency Funds (LEEF), and the Students for Energy Efficiency (SEE). 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 in which each was available in 2010, and energy savings.

Table 1. 2010 DSM, sectors, programs, operational type, and energy savings

Program by Sector	Operational Type	State	Savings
Residential			
A/C Cool Credit	Demand Response	ID/OR	39.0 MW
Ductless Heat Pump Pilot	Energy Efficiency	ID/OR	364 MWh
Energy Efficient Lighting	Energy Efficiency	ID/OR	28,083 MWh
Energy House Calls	Energy Efficiency	ID/OR	1,199 MWh
ENERGY STAR® Homes Northwest	Energy Efficiency	ID/OR	883 MWh
Heating & Cooling Efficiency Program	Energy Efficiency	ID/OR	1,104 MWh
Home Improvement Program	Energy Efficiency	ID	3,986 MWh
Home Products Program	Energy Efficiency	ID/OR	1,444 MWh
Oregon Residential Weatherization	Energy Efficiency	OR	<1 MWh
Rebate Advantage	Energy Efficiency	ID/OR	165 MWh
Residential Energy Efficiency Education Initiative	Other Programs and Activities	ID/OR	n/a
See ya later, refrigerator®	Energy Efficiency	ID/OR	1,568 MWh
Weatherization Assistance for Qualified Customers	Energy Efficiency	ID/OR	3,742 MWh
Weatherization Solutions for Eligible Customers	Energy Efficiency	ID	313 MWh
Commercial/Industrial			
Building Efficiency	Energy Efficiency	ID/OR	10,820 MWh
Commercial Education Initiative	Other Programs and Activities	ID/OR	n/a
Easy Upgrades	Energy Efficiency	ID/OR	35,824 MWh
FlexPeak Management	Demand Response	ID/OR	47.5 MW
Holiday Lighting Program	Energy Efficiency	ID/OR	249 MWh
Oregon Commercial Audits	Energy Efficiency	OR	n/a
Custom Efficiency	Energy Efficiency	ID/OR	71,580 MWh
Irrigation			
Irrigation Efficiency Rewards	Energy Efficiency	ID/OR	10,968 MWh
Irrigation Peak Rewards	Demand Response	ID/OR	249.7 MW
All Sectors			
Northwest Energy Efficiency Alliance	Market Transformation	ID/OR	15,334 MWh

Program Performance

In 2010, energy savings increased as compared to 2009 for residential, commercial, and industrial by 65 percent, 13 percent, and 38 percent, respectively. There was a 17 percent reduction in the savings from the irrigation sector. The residential sector savings increased to 42,851 MWh; the commercial sector savings increased to 46,893 MWh; the industrial sector increased to 71,580 MWh; and the irrigation sector decreased to 10,968 MWh. The reduction in savings in the irrigation sector was primarily the result of program maturity and new program requirements that began in 2010. Additional energy savings continue to be realized through market transformation partnership activities with NEEA.

Customer participation increased in most of the existing programs during the year. The number of projects completed under the Easy Upgrades program increased from 1,224 projects in 2009 to 1,535 projects in 2010, a 25 percent increase. Participation in the Home Improvement Program increased by almost 200 percent, from 1,188 homes in 2009 to 3,537 in 2010. As a result of the continuation of the depressed housing market in 2010, the number of homes given incentives in the Rebate Advantage program decreased. Surprisingly, the ENERGY STAR® Homes Northwest program

participation increased by almost 33 percent by providing incentives for 630 homes in 2010 as compared to 474 homes in 2009.

A few individual programs were big contributors to overall energy savings. The Custom Efficiency program accounted for 42 percent of Idaho Power's energy savings from programs, resulting in an estimated 71,580 MWh of savings. The Easy Upgrades program in the commercial sector provided 21 percent, or 35,824 MWh, of estimated energy savings. In the residential sector, the Energy Efficient Lighting program saved 28,083 MWh, accounting for 16 percent of overall energy savings by giving incentives to over one million bulbs in 2010.

Table 2 shows the 2010 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 2010 contribution of each sector in terms of energy usage and its respective size in number of customers. Unless otherwise noted, all energy savings presented in this report are measured or estimated at the customers' meter, excluding line losses.

Table 2. 2010 Program Sector Summary and Energy Use

	Energy Efficiency Program Impacts[a]				Idaho Power System Sales		
	Direct Expenses	Energy Savings (MWh)	Average Energy (aMW)	Peak Load Reduction (MW)[b]	Sector Total (MWh)	Percentage of Energy Usage	Number of Customers
Residential	$ 8,093,078	42,851	4.9		4,983,423	36.70%	408,754
Commercial	5,535,273	46,893	5.4	8.7	3,763,495	27.71%	64,647
Industrial	8,778,125	71,580	8.2	9.5	3,126,504	23.02%	121
Irrigation	2,200,814	10,968	1.3	3.3	1,706,632	12.57%	18,547
Market Transformation	2,391,217	15,334	1.8	n/a	n/a	n/a	n/a
Total	**$26,998,507**	**187,626**	**21.0**	**21.5**	**13,580,054**	**100.0%**	**492,069**

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

2010 Activities

In 2010, Idaho Power continued to expand its DSM programs in order to increase participation and energy savings. Many of the activities in 2010 also revolved around evaluation and research. The company was also engaged in enhanced regulatory reporting and filings.

Idaho Power's residential end-use survey or *Home Energy Survey* was completed in 2010. The survey was the latest in a series of periodic end-use studies conducted by Idaho Power, with the last survey completed in 2004. The primary objective of the 2010 study was to profile residential customers to better understand their housing and end-use characteristics that included home demographics, fuel source, home heating and cooling, and appliance and consumer electronics saturation. A copy of this report is included in *Supplement 2: Evaluation*.

In 2010, Idaho Power designed and developed a new comprehensive database that will more effectively store savings results, measure information, and allow for more efficient incentive processing for customers. The database was developed with a unified table structure across all energy efficiency programs on a SQL Server database platform that is easily scalable for future program additions and changes. The database structure allows for the integration of DSM program data with Idaho Power's customer information system (CIS) along with financial databases for tracking and processing customer incentive payments. Because of the unified and consistent table structure, the database is well positioned

for the future transition to the new CIS and customer relationship management (CRM) tool that will be implemented through the federal Smart Grid Investment Grant program. While the database table structure is consistent across programs, each program has the ability to track custom fields that are unique to their program. The database application was tested in late 2010 and completed for all but two programs by the beginning of 2011. The final programs will be integrated into the system in early 2011.

Idaho Power collaborated with the City of Boise to serve as the implementer for the Boise City Home Audit Project. Additionally, the company continued participation with NEEA's Ductless Heat Pump (DHP) Pilot. Idaho Power also modified the Irrigation Peak Rewards program.

During 2010, Idaho Power began its contractual participation in, and funding of, NEEA under the 2010 to 2014 agreement. NEEA's efforts in the northwest impact Idaho Power's customers by encouraging regional market transformation. Idaho Power representatives participated on several NEEA committees and events. Idaho Power also continued to help fund and participate in the Regional Technical Forum (RTF) and uses the results from the RTF's research in program development and cost-effectiveness analysis.

On March 16, 2010, Idaho Power filed case number IPC-E-10-09, which was a request for the IPUC to designate Idaho Power's expenditure of $50,701,740 in Idaho Rider funds in 2008 and 2009 as prudently incurred expenses. This prudency filing was the first designed to comply with the agreed-upon principles set forth in the MOU for Prudency Determination of DSM Expenditures. On November 16, 2010, in Order No. 32113, the IPUC found that the company acted prudently in the administration of its Rider-funded DSM programs and expenses.

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 across Idaho Power's service area and the Pacific Northwest. Members represent a cross-section of customers, including individuals 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.

In 2010, the EEAG met three times, February 18, May 26, and October 26. During the meetings, Idaho Power requested recommendations and discussion 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 2010 EEAG meetings are included in *Supplement 2: Evaluation*.

In addition to the 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.

Smart Meter Project

Idaho Power continued with the current Smart Meter Project by installing Advanced Meter Infrastructure (AMI). The Smart Meter Project will enhance Idaho Power's energy efficiency efforts in several ways. Hourly data is being collected by these meters and can be viewed by customers via the Internet. This will enable customers to be more informed and more wisely manage their use of electricity. Customer hourly energy data and monthly demand data will eventually help to evaluate energy efficiency and demand response programs. Idaho Power will continue to expand its use of the power-line communications technology to dispatch demand response programs.

As of February 2011, Idaho Power had installed 283,500 residential smart meters and 47,756 commercial Smart Meters, totaling 331,256 meters as part of the company's three-year AMI deployment. While 2009 saw meters installed primarily in the Treasure Valley area, 2010 continued to deploy meters into Canyon County as well as the Payette and Ontario, Oregon areas served by the company. By year-end, installations were completed in the Mountain Home area. Work commenced in the Pocatello area in January 2011 and will continue until the end of May. From June to December 2011, the Twin Falls and Hailey areas will be outfitted with AMI technology. To date, 83 of the expected 134 substations installations are completed. Overall, the project is on schedule.

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 in order for the company to have the opportunity to earn on the energy efficiency investments like other investments in which the company is engaged. Since 2002, Idaho Power has recovered its DSM program costs through the Rider with the intended result of providing more timely recovery of DSM costs. Coupled with cost recovery is a need for clear and achievable guidelines for prudency. To address the removal of financial disincentives, Idaho Power is testing the effects of a fixed-cost adjustment (FCA) mechanism in a five-year pilot initiative. The FCA pilot just completed year four.

To introduce an option to provide financial incentives for DSM, in October the company filed case number IPC-E-10-27 with the IPUC. Part of the filing establishes the company's proposal to move incentive payments for one DSM program to a regulatory asset account in order to begin earning its authorized rate of return on the DSM investment. This would allow some energy efficiency investments to be treated similar to supply-side investments and not treated as inferior investments. In that same filing, the company proposed moving the recovery of incentive payments of demand response programs out of the Rider and into the Power Cost Adjustment (PCA) mechanism. This move would treat the cost recovery of demand response payments similar to other supply-side resource expenses, such as fuel purchase power and surplus sales.

DSM Expenditures

Funding for DSM programs in 2010 came from several sources. The Rider funds are collected directly from customers on their monthly bills. The Idaho Rider is currently 4.75 percent of base rate revenues. On March 5, 2010, Idaho Power filed with the Public Utilities Commission of Oregon (OPUC) to increase the Oregon Rider from 1.5 percent to 3.0 percent and to eliminate the monthly caps on the residential and irrigation bills. This was approved on June 1, 2010. 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 $45.8 million in 2010.

Table 3 provides a summary of the 2010 expenses and energy savings by each funding category.

Table 3. 2010 funding source and energy impact

Funding Source	Expenses	MWh Savings
Idaho Rider	$ 42,479,692	174,779
Oregon Rider	1,704,367	9,105
Idaho Power Base Rates	1,648,792	3,742
Total	**$ 45,832,851**	**187,626**

Table 4 and Figure 4 show Idaho Power's Rider expenses separated by expense category. The expenses in the Materials category are primarily A/C Cool Credit switches. Other Expenses includes marketing ($514 thousand), program evaluation ($293 thousand), and program training ($190 thousand). Purchased services includes payments made to NEEA and contract payments made to third-party contractors who help administer Idaho Power's programs, such as M2M for the Irrigation Peak Rewards program and JACO for the See ya later, refrigerator program.

Table 4. 2010 Idaho and Oregon Rider expenditures by category

	Total	% of Total
Incentive Expense	$32,048,751	73%
Labor/Administration	2,828,287	6%
Materials	345,066	1%
Other Expense	1,040,237	2%
Purchased Services	7,921,718	18%
Total 2010 Rider Expenditures, by Category	**$44,184,058**	**100%**

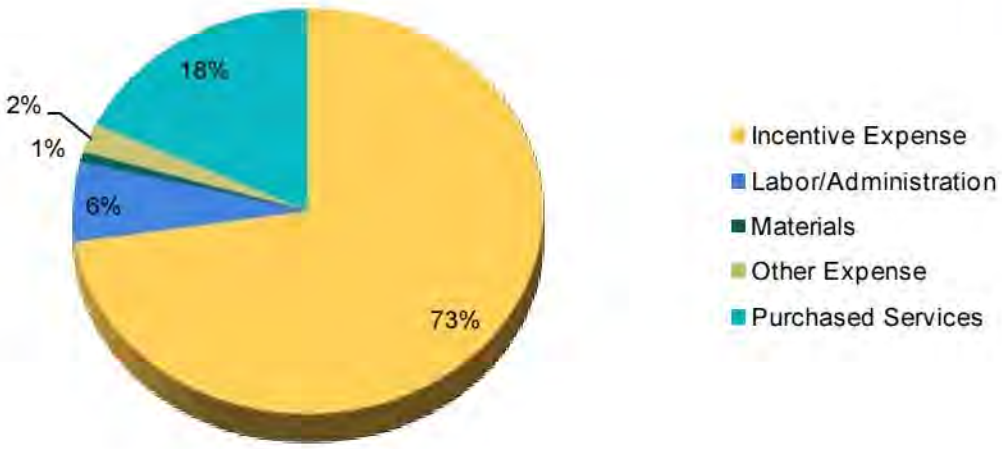

Figure 4. 2010 Oregon and Idaho Rider expenditures by category

Figure 5 shows Idaho Power Rider incentives expenses separated by type of program and by type of sector, either Demand Response (DR) or Energy Efficiency (EE).

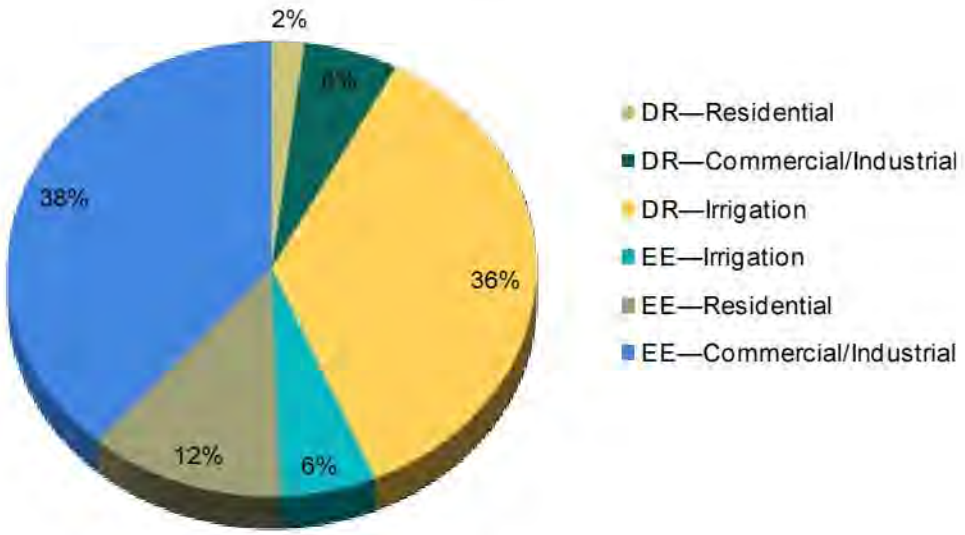

Figure 5. 2010 Idaho and Oregon Rider incentives by sector

Future Plans

Many of Idaho Power's DSM programs are selected for implementation through its biennial IRP. 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 cost, risk, and environmental concerns in developing a preferred portfolio of future resources that meet the specific energy needs of Idaho Power and its customers. In 2011, Idaho Power plans to continue to increase participation, energy savings, and demand reduction from existing energy efficiency and demand response programs. Additionally, the company will add measures as identified in the 2011 IRP to its existing programs and continue to expand its efforts in energy efficiency education. Idaho Power also plans to expand the FlexPeak Management program as defined in its contract with EnerNOC, Inc., the third-party demand response aggregator who administers this program.

Marketing

DSM marketing plans are developed annually. These plans focus on distinct customer segments, including residential, commercial/industrial, and irrigation. Each segment's marketing plan includes the goals, strategy, tactics, previous marketing results/research, and budgets for each individual program within that segment. The plan is reviewed at the six-month mark to ensure tactics are being implemented and to update information as necessary. A variety of sources help inform marketing decisions. These include primary research, secondary research, historical performance, and third-party segmentation software.

As part of the company's awarded Smart Grid Investment Grant, work will continue on the CRM tool in 2011. This new marketing tool will track customer interactions and centralize customer marketing data, providing in-depth information about Idaho Power customers. This new technology will allow the

Customer Relations and Energy Efficiency department to better interact with customers, meet their needs, and accelerate energy efficiency and demand response program participation. Resource efficiencies in regard to the CRM tool will be gained in part by replacing current manual marketing processes with automated processes and workflows.

Program Evaluation

Program evaluation is an important facet of Idaho Power's DSM operational activities. Idaho Power relies on evaluation by third-party contractors, internal analyses, and regional studies to ensure the ongoing cost-effectiveness of programs through validation of energy savings and demand reduction. The results of Idaho Power's evaluation efforts are used to enhance or initiate program changes. Throughout 2010, Idaho Power revised its comprehensive evaluation plan for energy efficiency and demand response programs. The current evaluation plan is included in *Supplement 2: Evaluation*. Although the evaluation plan is expected to be used for scheduling evaluations, the timing of specific program evaluations will be based on considerations of program evaluation needs, and other relevant regional studies.

In 2010, the company completed process evaluations on all of its commercial, industrial, and irrigation programs. It also completed process evaluations on four of its residential energy efficiency programs. Although Requests for Proposals (RFP) were issued in April 2010, the studies were completed in late 2010, and the final reports were received in early 2011. All of these studies were conducted under contract with third-party independent evaluation firms. The company is in the process of reviewing the recommendations and constructing implementation plans to incorporate the results of these evaluations into the program processes. Copies of these evaluations are included in *Supplement 2: Evaluation*.

Customer Satisfaction

Since 1995, Idaho Power has employed an independent third-party research vendor to conduct customer relationship surveys. The intent of these surveys is to measure the overall customer relationship and satisfaction with Idaho Power. As such, consistency in survey format is an important aspect of being able to trend results over a period of time. Occasionally, when there are changes in Idaho Power operations that may significantly affect a customer's relationship with the company, slight changes or additions have been allowed to the survey instrument to accommodate new relationship attributes. Because of Idaho Power's increased activity with energy efficiency programs in 2003 and the impact those programs may have on a customer's satisfaction with the company, Idaho Power added two questions related to awareness of Idaho Power's energy efficiency efforts to the overall survey instrument. In 2010, again because of increased activity and interest in Idaho Power's energy efficiency programs, the company added three additional questions to the survey to measure customers' participation in, and satisfaction with, Idaho Power's energy efficiency programs. However, it is important to reiterate that the intent of this survey is not to measure all aspects of any or all energy efficiency programs offered by Idaho Power. The survey measures satisfaction of a number of different aspects of the customer's relationship with Idaho Power, including energy efficiency, at a very high level.

The 2010 results of Idaho Power's quarterly customer relationship survey showed steady improvement over recent years. The percentage of customers who have a positive perception of Idaho Power's energy efficiency efforts continued to grow, with a 46 percent increase in positive customer perception from 2003 to 2010. Customers' positive perception of Idaho Power's energy efficiency efforts increased from 39 percent in early 2003 to 57 percent in late 2010. 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.

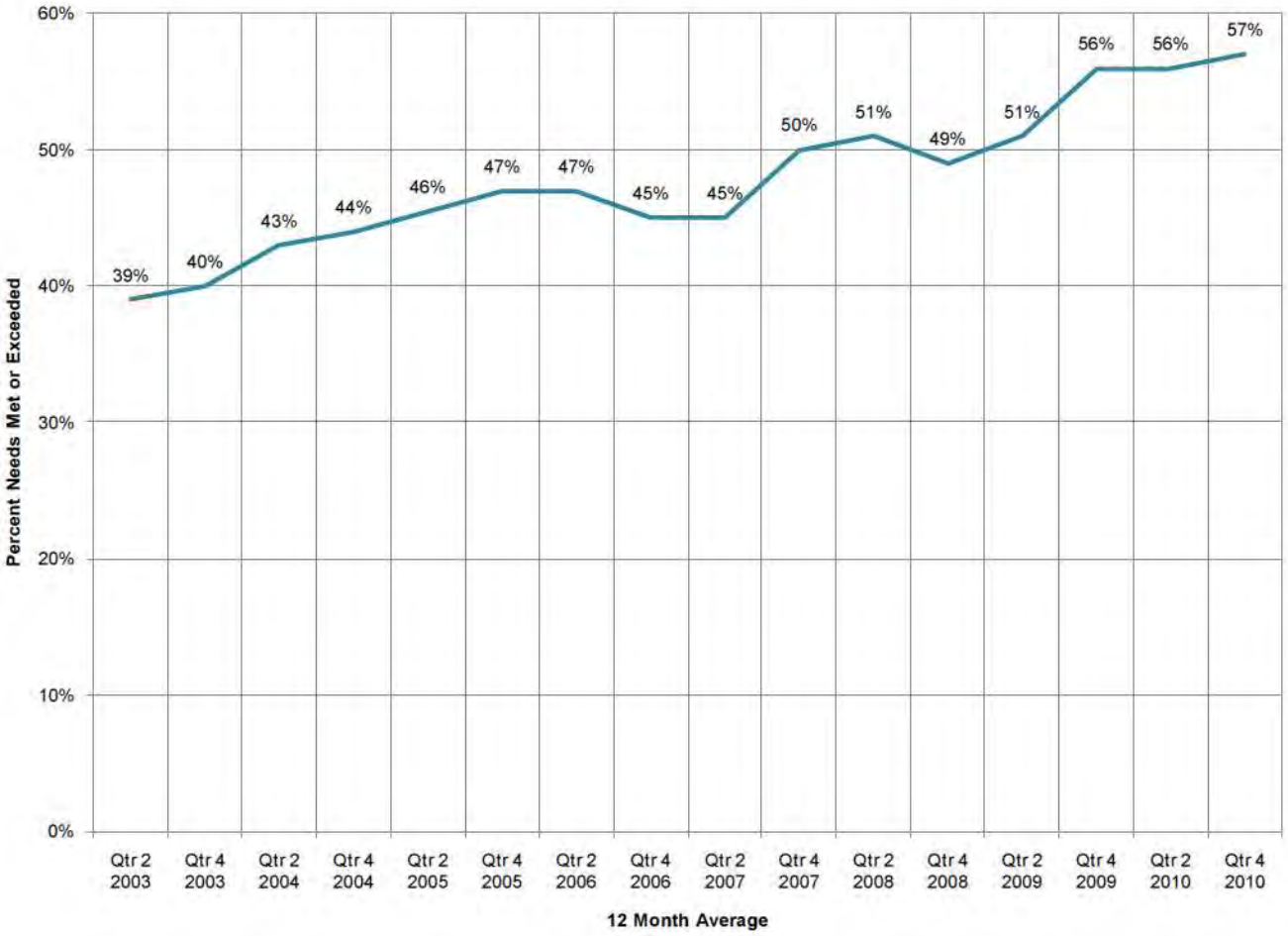

Figure 6. Percent of customers whose needs are met or exceeded by Idaho Power's energy efficiency efforts

In 2010, Idaho Power added three new questions to the general relationship survey related to energy efficiency programs: 1) Have you participated in any of Idaho Power's energy efficiency programs? 2) Which energy efficiency program did you participate in? 3) Overall, how satisfied are you with the energy efficiency program? Overall, 33 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, 95 percent are "very" or "somewhat" satisfied with the program.

Several surveys measured customer satisfaction with individual programs in 2010. The surveys also provide guidance for program modification, marketing, and evaluation. Survey results are presented in the following program descriptions in this report: DHP Pilot, Heating & Cooling Efficiency (H&CE) Program, Easy Savings Program, Residential Energy Efficiency Education Initiative, Weatherization Solutions for Eligible Customers, Easy Upgrades, and FlexPeak Management.

Idaho Power programs have ongoing customer satisfaction measurements as a follow-up to the application process. For example, Easy Upgrades provides an ongoing, Web-based customer survey for its participants. Results of these surveys indicate general satisfaction and help guide program

improvement and marketing efforts. After each session of the Energy Efficiency and Green Living Series, Idaho Power requests attendees fill out a customer feedback form rating the program. The H&CE Program provides an opportunity for customer and contractor feedback through surveys.

Cost-Effectiveness

Idaho Power considers cost-effectiveness of primary importance in the design, implementation, and tracking of energy efficiency and demand response programs. Because of Idaho Power's diversified portfolio of programs, most of the new potential for energy efficiency savings in the Idaho Power service area is based on measures being added to programs, rather than new programs. The process in the IRP for determining if additional measures should be adopted remains the same as it is for program inclusion. Specific programs or potential energy savings 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 lower cost 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 is input from various sources in order to use the most current and reliable information available. When possible, Idaho Power leverages the experiences of other companies in the region, or throughout the country to help identify specific program parameters.

Idaho Power's goal is for all mature programs to have benefit/cost (B/C) ratios greater than 1.0 for the total resource cost (TRC) test, utility cost (UC) test, and participant cost test (PCT) at the program level and the measure level. Only the program level tests are used in cases where there is significant interaction between measures. This year, Idaho Power has calculated the RIM test for each program, and the results of these calculations are included in *Supplement 1: Cost-Effectiveness*. Idaho Power may launch a pilot program to evaluate estimates or assumptions in the cost-effectiveness analysis. Following implementation of a program, cost-effectiveness analyses are reviewed annually, including actual program information, such as actual program expenses, savings, or participation levels. If measures or programs are determined to not be cost effective after implementation, the program or measures are reexamined and modified based on input from the EEAG. In 2010, all of Idaho Power's energy efficiency programs are shown to be cost-effective from the TRC, UC, and PCT perspectives. All three of the company's demand response programs are cost-effective from both a long-term perspective as well as for 2010 under a one-year perspective.

Appendix 4 contains the UC and TRC B/C ratios using actual cost information over the life of each program through 2010. 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. A complete description of Idaho Power's methodology, input assumptions, sources, and results is presented in *Supplement 1: Cost-Effectiveness*.

DSM Annual Report Structure

The structure of Idaho Power's *Demand-Side Management 2010 Annual Report* remained for the most part unchanged from the 2009 report, aligning with the reporting requirements included in the MOU with the IPUC staff.

This main *Demand-Side Management 2010 Annual Report* document remains similar to previous years, organized primarily by customer sector categorized by residential, commercial/industrial, and irrigation. The sector descriptions are followed by information regarding programs in that sector. Each program description includes a chart containing 2010 and 2009 program metrics in tabular format, followed by a general description, 2010 activities, cost-effectiveness, customer satisfaction/evaluation, and 2011 plans. Each program section contains detailed information in relation to program changes and the reasoning behind those changes, including details 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. The appendices following the written sections contain tabular information on the 2010 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 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 three, historical regions are referred to throughout this report.

Appendices 1–4 remain generally unchanged in form and contain financial, energy and demand savings, and levelized costs and program life B/C ratios from the UC and the TRC perspectives. In the main report, Appendix 5 has been added. It contains detailed financial and energy savings information separated by Idaho Power's two jurisdictions, Idaho and Oregon.

Also included this year are two supplements and an attached compact disc (CD). *Supplement 1: Cost-Effectiveness* contains detailed cost effectiveness information by program and energy-savings measure 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, RIM, and PCT perspectives. The RIM test is a new addition this year. The RIM test measures the impact to customer bills or rates due to changes in utility revenues and operating costs caused by an energy efficiency program. Idaho Power used the formula for the RIM test as provided in the *California Standard Practice Manual, Economic Analysis of Demand-Side Programs and Projects, October 2001. 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) provided by NEEA is attached to Supplement 2.

RESIDENTIAL SECTOR OVERVIEW

Description

The Idaho Power service area covers a population of a little more than one million people. At the end of 2010, Idaho Power was serving 408,754 residential customers in its Idaho and Oregon service areas. During 2010, Idaho Power added 2,123 residential customers, making it the third consecutive year of relatively modest growth of residential customers within the company's service area. These additional residential customers represented a slightly lower amount than the 2,258 residential customers added in 2009. A continued sluggish regional economy and few housing starts were the main drivers of this trend. In 2010, the residential segment represented 39 percent of Idaho Power's total electricity usage and contributed 45 percent of total revenue for the company.

Milder temperatures, a sluggish economy, energy efficiency activities, customer education, and successful dispatching of company-sponsored DSM programs led to a system peak of only 2,930 MW on June 28, 2010, at 7:00 p.m. For the second consecutive year, Idaho Power did not set a new summer system peak record. The record summer peak of 3,214 MW was established on June 30, 2008, at 3:00 p.m. Idaho Power continued its education and promotion of energy efficiency programs and information to all residential customers by participating in local and regional events as well as conducting target visits with trade allies, contractors, and vendors during the year. These tasks and activities contributed to increased program participation and improvement in customer satisfaction results.

Annual program savings in the residential sector of 42,850,839 kWh were recorded as part of 2010 program offerings to customers, with more than a 16-million kWh increase over 2009 program performance of 25,979,920 kWh. While several programs experienced increased savings in 2010, the increase in annual savings was driven mostly by growth in customer participation of both the Energy Efficient Lighting and Home Improvement Programs. The Energy Efficient Lighting program provided 1,190,139 discounted bulbs to customers through retailers during 2010, resulting in 28,082,738 kWh in annual savings, which more than doubled the sales of 549,846 bulbs in 2009. Participation in the Home Improvement Program, which offers incentives for increasing attic insulation, grew from 1,661 homes to 3,537 homes in 2010, resulting in 3,986,199 kWh of annual savings. Table 5 provides a summary of 2010 residential program performance for both energy efficiency programs and the one residential demand response program.

Programs

Table 5. 2010 Residential Program Summary

Program	Participants	Total Costs		Savings	
		Utility	Resource	Annual Energy (kWh)	Peak Demand (MW)
Demand Response					
A/C Cool Credit	30,803 homes	$ 2,002,546	$ 2,002,546	n/a	39.0
Total		**$ 2,002,546**	**$ 2,002,546**		**39.0**
Energy Efficiency					
Ductless Heat Pump Pilot	104 homes	$ 189,231	$ 439,559	364,000	
Energy Efficient Lighting	1,190,139 bulbs	2,501,278	3,976,476	28,082,738	
Energy House Calls	1,602 homes	762,330	762,330	1,198,655	
ENERGY STAR® Homes Northwest	630 homes	375,605	579,495	883,260	
Heating & Cooling Efficiency Program	217 homes	327,669	1,073,604	1,104,497	
Home Improvement Program	3,537 homes	944,716	2,112,737	3,986,199	
Home Products Program	16,322 appliances/fixtures	832,161	1,025,151	1,443,580	
Oregon Residential Weatherization	1 home	6,050	6,275	320	
Rebate Advantage	35 homes	39,402	66,142	164,894	
See ya later, refrigerator®	3,152 refrigerators/freezers	565,079	565,079	1,567,736	
Weatherization Assistance for Qualified Customers	400 homes/non-profits	1,321,132	2,927,898	3,741,652	
Weatherization Solutions for Eligible Customers	47 homes	228,425	228,425	313,309	
Total		**$ 8,093,078**	**$ 13,763,171**	**42,850,839**	

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 one demand response program, 12 energy efficiency programs, and an energy efficiency educational initiative. The demand response program A/C Cool Credit had more than 34,600 customers enrolled as of the end of 2010. The residential efficiency programs include Energy House Calls, Rebate Advantage, ENERGY STAR® Homes Northwest, Oregon Residential Weatherization, Home Products, Energy Efficient Lighting, See ya later, refrigerator®, Weatherization Assistance for Qualified Customers (WAQC), H&CE Program, DHP Pilot, Home Improvement, and Weatherization Solutions for Eligible Customers.

The Boise City Home Audit Project was initiated in 2010. Idaho Power partnered with the City of Boise, which received funding initiated by the American Reinvestment and Recovery Act (ARRA), to serve as the program implementer for the city. The combination of financial support through the act and Idaho Power Rider funds allows the program to be fuel neutral and target 600–700 homes within the city limits of Boise. The program is scheduled to be completed by spring 2012 and includes a blower-door test, customer education, installation of compact fluorescent light (CFL) bulbs, low-flow showerhead, and other energy efficiency measures for qualified customers.

Idaho Power continued to increase its participation in the number of retail and community outreach events during 2010. Many of these events were partnerships with community retailers, including Home Depot, Lowe's, Costco, and Fred Meyer. The company also participated in home and garden shows, several Parade of Homes events across Idaho Power's service area, the Idaho Green Expo, a library education series, and other community events across the company's service area.

Presentations to community groups and businesses were another emphasis during the year, with nearly 400 presentations conducted in 2010. For example, Idaho Power customer representatives made

approximately 130 presentations to civic and community groups, including chambers of commerce, school boards, service organizations, and businesses. The presentations took place during such times as staff meetings, business lunches, and Rotary luncheons; other examples of presentations are provided in the Residential Energy Efficiency Education Incentive section of this *Demand-Side Management 2010 Annual Report*. These partnerships and outreach activities created specific opportunities for the company to share the importance of energy efficiency and give customers information and options about participating in programs.

Idaho Power conducts the Burke Customer Relationship survey each year. Fifty-four percent of residential survey respondents in 2010 indicated Idaho Power is meeting or exceeding their needs with information on how to save energy or reduce their bill. Fifty-three percent of residential respondents indicated Idaho Power is meeting or exceeding their needs by encouraging energy efficiency with its customers. Overall, 37 percent of Idaho Power residential customers surveyed in 2010 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 residential survey respondents who have participated in at least one Idaho Power energy efficiency program, 85 percent are "very" or "somewhat" satisfied with the program.

A/C Cool Credit

	2010	2009
Participation and Savings		
Participants (participants)[a]	30,803	30,391
Energy Savings (kWh)	n/a	n/a
Demand Reduction (MW)[a]	39.0	38.5
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$1,854,979	$3,305,814
Oregon Energy Efficiency Rider	$74,071	$144,622
Idaho Power Funds	$73,496	$1,552
Total Program Costs—All Sources	$2,002,546	$3,451,988
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	n/a	n/a
Total Resource Benefit/Cost Ratio	n/a	n/a
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	1.11	
Total Resource Benefit/Cost Ratio	1.11	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2003	

[a] Program participation and demand reduction reflect enrollment as of July 31st. Year-end enrollment in the program was 34,640 homes, with 6,095 new participants joining the program.

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 on and off via a direct-load control device installed on the A/C unit. Participants receive a monthly monetary incentive for participating in the program during the summer season. This program enables Idaho Power to reduce system peaking requirements during times when summer peak load is high.

Individual radio-controlled or power-line carrier (PLC) switches are installed on customers' A/C units. These switches allow Idaho Power to cycle customers' A/Cs during a cycling event. As Idaho Power's Smart Meter project expands across its service area, more new switches will be PLC switches that will allow broader participation. Under this program, Idaho Power may cycle participants' A/Cs for up to 40 hours each month in the months of June, July, and August. In return, participants receive a $7 per-month credit on their Idaho Power bill during July, August, and September.

2010 Activities

The program expanded its presence on the Mountain Home Air Force Base (MHAFB) housing from 522 to 803 total participants. There were three cycling events in 2010, one in each of the summer months. The three events in 2010 were on June 29 from 4:00 p.m. to 7:00 p.m., July 16 from 4:00 p.m. to 7:00 p.m., and August 5 from 4:28 p.m. to 7:00 p.m. Due to mild temperatures, all events were cycled at 50 percent.

Cycling event hours continued to be in three-hour periods, pinpointing the peak time with less potential impact on participants. Summer 2010 temperatures were mild. This resulted in fewer high-demand days, so there was less need for cycling to reduce demand. Generally, the need for cycling starts near the end of June when temperatures rise. With high temperatures milder in 2010, there was less need for A/C. Lower average temperatures also improve a home's ability to cool naturally overnight and retain less heat the following day.

Marketing approaches during 2010 covered a range of methods, including bill stuffers, direct mail, follow-up letters, and newspaper advertisements. One successful marketing piece was a letter accompanied by a dual-purpose piece: a magnet to record important phone numbers mounted to a cardstock reusable bookmark. This piece was sent out in three waves, with the results ranging from 1 percent to over 2.5 percent sign-up rates. All three waves had about the same response rate range. Idaho Power employees continued visiting large businesses, providing program information, and speaking at luncheon presentations.

The Smart Meter installations brought two new opportunities to market the A/C Cool Credit program. The first was to advertise the program on the back of the door hanger left at the customer's home when a Smart Meter was installed. This generated sign ups and added to the general awareness of the program. The second opportunity provided new areas for switch installation as the Smart Meter area expanded into areas previously unavailable due to no, or limited, paging reception for the radio-controlled switches.

A cause-related marketing approach, consisting of partnering with both the Idaho Foodbank and Southeast Oregon Regional Food Bank, was repeated in 2010. It provided customers an additional opportunity to sign up for the program. During a "limited time offer," a $20 contribution went to the food bank in the participant's location for enrolling in the A/C Cool Credit program. The winter promotion, from October 2009–February 2010, resulted in a total of $22,220, equal to 66,660 meals, for the Idaho Foodbank, and $1,080, equal to 5,400 pounds of food, for the Southeast Oregon Regional Food Bank. This marketing approach yielded 1,165 new A/C Cool Credit sign-ups in 2010.

The call center customer service representative (CSR) pilot continued into 2010. CSRs received training in signing up new A/C Cool Credit participants at the point of contact when an Idaho Power customer initiates or transfers his/her account by phone. This resulted in 86 sign ups in 2010.

Outreach to Heating, Ventilation, and A/C (HVAC) companies continued as-needed to provide their employees with training on the A/C Cool Credit switch. Increasing the HVAC technician's knowledge of switch boxes contributes to positive customer relations between the customer and the technician servicing the A/C Cool Credit program participant's A/C unit.

In 2010, the two paging providers discontinued their service to the Twin Falls and Pocatello areas. A search was conducted for alternative paging providers but none were available for that area. Alternative methods of communicating with the switches were researched. An adequate solution was not available. This resulted in the inability to cycle the participants in those two areas during summer 2010. In response, marketing to these areas and installation of new switches was halted.

At the May 26, 2010, EEAG meeting, Idaho Power explained some of the paging issues experienced by customers in the Twin Falls and Pocatello areas. Idaho Power asked EEAG members for feedback and suggestions on how to proceed with this issue. EEAG members supported crediting those affected customers on their bill with the use of non-Rider funds. The participants in these areas were paid an incentive dispite the lack of Smart Meter communication. The company determined that it was less

expensive to pay an incentive than to again recruit A/C Cool program participants. The Smart Meter deployment expanded into these affected areas in late 2010, and the company began to replace paging switches with smart grid-compatible switches. Switches started being changed out in late 2010 with plans to continue into early spring, with the new switches being operational before the start of cycling season 2011.

Idaho Power initiated a process improvement in 2010, by changing the method of transferring data to contractor, Honeywell, Inc., Utilities Solutions. In the past, each e-mail containing customer information had to be manually encrypted when sent. This required Honeywell, Inc., to log into a special system to access the information each time they received an encrypted e-mail. The process kept the customer data secure, but resulted in additional time and work for both parties. Idaho Power's Information Technology (IT) department determined that Transport Layer Security (TLS) was an equally secure method of transferring data between the two parties and did not require manually encoding and decoding. Once approved and in place, the new process allowed quicker transfer of data, which results in responding to customer requests in a timelier manner.

Cost-Effectiveness

Although the B/C analysis for the A/C Cool Credit program is based on a 20-year model that uses financial and DSM alternative costs assumptions from the 2009 IRP, the company also tracks cost-effectiveness on an annual basis. As published in the 2009 IRP, for peaking alternatives, such as demand response programs, a 170-MW simple-cycle combustion turbine (SCCT) is used as an avoided resource cost. Idaho Power's A/C Cool Credit cost-effectiveness model is updated annually with actual benefits and costs. The benefits are based on peak reduction and shifted energy use. In 2010, the A/C Cool Credit model update included the expense of paying incentives to the Twin Falls and Pocatello participants for which no demand reduction was realized. This additional expense had no effect on the 20-year cost-effectiveness and no material effect on the 2010 annual cost-effectiveness. From a long-term perspective, the A/C Cool Credit program had a TRC ratio of 1.11 and from a one-year prospective a TRC ratio of 1.23. See *Supplement 1: Cost-Effectiveness* for details on the cost-effectiveness assumptions and data.

Customer Satisfaction and Evaluations

In 2010, 2,837 accounts ended participation in the A/C Cool Credit program. Of those, 2,807, or 98.9 percent, ended participation at approximately the same time as their Utility Service Agreement (USA) expired. The USA is the customer's agreement with Idaho Power for electrical service. It begins when they sign up for service, and ends when they end service.

Approximately 30 accounts, or 1 percent, stopped participating in the program for reasons other than the canceling of electric service. This was determined by an analysis of the end-dates for contract riders, which are the agreements to participate in the A/C Cool Credit program, and end-dates for USAs.

In early 2010, Idaho Power contracted with Paragon Consulting Services and received a detailed plan to evaluate the impacts of the 2010 A/C Cool Credit program. Idaho Power is using this evaluation plan as a basis for conducting a comprehensive impact evaluation in 2011.

2011 Strategies

In February 2011, Idaho Power issued an RFP to evaluate the impacts of the A/C Cool Credit program, including electrical demand reduction and energy impacts, effects of various curtailment strategies on

indoor air temperature of participants, strategies to balance load reduction with customer comfort, estimation of available load reduction as a non-spinning reserve resource, and identification of parameters to predict potential load reduction. Idaho Power plans to select a contractor in March 2011. Customer recruitment and data collection equipment installation will conclude in May before the curtailment season begins. Analysis of the data will begin in September with the final report delivered in December 2011.

The 2011 program target is to reach 40,000 total participants. Once the target is achieved, the company will continue A/C Cool Credit marketing and promotion to determine if saturation has been achieved or if it is possible to increase participation. As Smart Meters are installed in those areas where the paging signal is unavailable, the A/C Cool Credit program will be able to expand.

The remaining 1,565 paging switches will be changed out in the Twin Falls and Pocatello areas in early 2011, so all replacements for these areas will be completed before the start of cycling season 2011. The majority of Smart Meter substations in these areas will be completed and operational before June 1, 2011, with a few exceptions. Once the substation is active, communication to the new switches will be available. The substations not commissioned before the start of cycling season will either be brought online shortly thereafter, or serve very few A/C Cool Credit participants. The result is that Idaho Power can cycle most of the switches/participants in the Twin Falls and Pocatello areas.

Ductless Heat Pump Pilot

	2010	2009
Participation and Savings		
Participants (homes)	104	96
Energy Savings (kWh)	364,000	409,180
Demand Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$181,969	$192,264
Oregon Energy Efficiency Rider	$7,262	$9,740
Idaho Power Funds	$0	$0
Total Program Costs—All Sources	$189,231	$202,004
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.044	$.031
Total Resource Benefit/Cost Ratio	$0.103	$.086
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	3.47	
Total Resource Benefit/Cost Ratio	1.38	
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 during 2009. The company extended the project as an Idaho Power DHP pilot through 2010. A main goal of the Northwest DHP pilot project was to promote the DHP technology as an energy-saving alternative for customers who primarily heat their homes with electric heating. Idaho Power offered customers a $1,000 incentive to participate.

The program targets homes heated with electric zonal systems. Typically, these homes do not have air ducting, 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 baseboard, ceiling, and wall-mounted systems. Homes heated with natural gas forced-air systems or electric forced-air systems do not qualify. Qualifications include having one indoor unit installed in the main living area of the home. Since this is where most occupants spend the majority of their time, and DHP systems can serve up to 1,000 square feet, this is the most efficient application of the technology.

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

Though the official pilot recruitment period concluded at the end of 2009, field monitoring on selected homes throughout the Pacific Northwest, billing data analysis, and other evaluations will continue through 2011.

2010 Activities

Idaho Power targeted 100 participants for NEEA's Northwest DHP Pilot. As participation levels neared the 100-application limit in 2009, the company announced to contractors that Idaho Power would extend the pilot and accept additional applications throughout 2010. Completed projects in 2010 exceeded 2009 by eight projects, or 8 percent.

Along with other utilities in the region, Idaho Power decided to continue the pilot to maintain the valuable momentum created in the marketplace among contractors and customers. Idaho Power promoted the pilot to customers through an article in its monthly residential customer newsletter, *Customer Connection*, and by sending direct mail letters to 28,492 targeted customers based on several factors, including energy usage during specific months and geographical region. The company also marketed the pilot to contractors by visiting with them and informing them of the pilot.

In November, Idaho Power held a one-day training session for contractors interested in the DHP Pilot. The Northwest DHP Pilot sponsored the event. The session covered product training and information on how to become a participating contractor. There were 31 attendees representing 21 HVAC companies.

In the fourth quarter, Idaho Power, through its new database, improved the method to process DHP incentive applications. Using the Customer and Load Research Information System (CLRIS), an existing software platform, a database was developed enabling all of the application data to be entered and stored for analysis. The database also initiated the incentive payment process. It has enabled the elimination of multiple files previously used to store data.

Cost-Effectiveness

The Northwest DHP Pilot finished its second year in 2010. Complete details about the regional effort can be found at the project website at www.nwductless.com. Data collection will be completed for the 13 chosen sites in Idaho Power's service area during 2011, and the post-installation billing data will be compiled and analyzed by a regional contractor.

The RTF has released provisional annual savings, based on a one indoor-unit installation with at least one ton of heating capacity or greater and employ an inverted driven compressor. The savings per unit is estimated at 3,500 annual kWh until the pilot analysis is completed. The RTF deemed one savings metric regardless of prior cooling, whether the DHP is displacing electric-resistance heat or zonal heat, or in what climate zone the unit is located. Participant costs in 2009 were determined by taking the median price as reported on Idaho Power's applications. These participant prices were used because the units purchased in Idaho Power's service area were approximately $900 less than the provisionally deemed regional costs. In 2010 the RTF updated the participant costs to $3,400. This level of expense confirmed what Idaho Power's data indicated; consequently, the provisionally deemed cost was used for all cost-effective analysis in 2010. For more detailed information about the cost-effectiveness savings, calculations, and assumptions, see the *Supplement 1: Cost-Effectiveness*.

Customer Satisfaction and Evaluations

As part of the regional pilot, a NEEA contractor conducted quality assurance (QA) on-site verifications (OSV). The regional pilot targeted 10 percent of completed installations. In 2010, 13 DHP Pilot projects in Idaho Power's service area were inspected by NEEA's contractor to ensure projects complied with program requirements. The QAs proved beneficial for customers, contractors, and Idaho Power. For example, customers were shown how to operate their systems correctly, the contractors were able to

review the installation requirements of the DHPs, and Idaho Power was able to observe the installation process.

Idaho Power mailed a 12-question satisfaction survey to 52 participants in 2010, and 41 surveys were returned, resulting in a 79 percent response rate. Most respondents heard about the DHP Pilot from their heating and cooling contractor or a letter from Idaho Power. Sixty-eight percent of the respondents were aware that Idaho Power offered an incentive for the purchase of a DHP prior to their purchasing one. Seventy-three percent of the respondents indicated that the Idaho Power incentive influenced their purchasing decision "a lot." The most common reason cited for installing a DHP was "no ducting available for other heating sources." Ninety-eight percent of the respondents were "very satisfied" with the DHP Pilot, and 100 percent said they "definitely would" recommend the program to a friend or relative. Approximately 93 percent of homeowners rated their contractor as "very knowledgeable," while 7 percent of the contractors were rated as "somewhat knowledgeable." Results of the survey are in *Supplement 2: Evaluation*.

The surveys have played an important role in evaluating the types of marketing tactics being used. The results indicate most customers are learning about the incentive program prior to purchasing a ductless heat pump. This result substantiates the need to market the program. Of equal importance is that there is not one source but multiple sources needed to reach the customers. This supports the overall strategy of trying new ways to generate market awareness. It is also apparent that, without the incentive, these systems might not be installed at the current rate. The survey results also indicate the performance of the overall program is valued by the customer. This supports the value in providing further enhancements to make the program even more seamless. In addition, that the majority of the customers indicate they would recommend the incentive to others makes customers a valuable marketing voice.

Idaho Power is continuing its participation in the Northwest DHP Pilot and evaluation. This extensive evaluation effort is designed to provide a technical evaluation of DHP technology as a retrofit opportunity, measure achievable energy savings, assess market response, and provide a process evaluation of the pilot program.

In 2010, NEEA made available an MPER update for the DHP Pilot. The following are highlights included in the report. Fifty-nine utilities participated and installed 3,899 units, exceeding the pilot's installation goal of 2,500 units as of December 31, 2009. Participants reported high levels of satisfaction concerning understanding incentive information, finding a contractor, locating program information, and receiving their incentive checks in a reasonable time. Of the participants, 66 percent said they would not or might not have purchased a DHP without the incentive. Pilot participants were interviewed for the report. Nearly 99 percent of them indicated they have the displaced electric heating equipment in place but use their DHP as the primary heating source. Of the 20 percent of participants who were planning to purchase some type of A/C equipment, none of them continued with that plan after they installed their DHP. Most participants reported receiving non-energy benefits with the DHPs, such as increased comfort, air filtration, and simple equipment control. The adaptation to large-scale integration projects remain limited due to the concern of DHPs' performance in severe climate conditions. A copy of the report is in *Supplement 2: Evaluation*.

2011 Strategies

Idaho Power will continue offering incentives to customers, in 2011. Idaho Power will increase participation in local manufacturer-training events held by local wholesalers. These training events enable Idaho Power to reach and align with contractors not yet familiar with this pilot.

For contractors to be eligible to participate in the DHP Pilot, they must receive mandatory DHP factory-product training for each of the brands they sell and attend a mandatory Idaho Power orientation. Product training is attainable via local HVAC wholesalers, manufacturer representatives, or Idaho Power-sponsored events. The Idaho Power orientation describes specific product features and installation methods required for incentive application approval. The company orientation further describes required installation features, such as a DHP with an inverter-driven compressor, inverter-driven or variable-speed blower, and R410A refrigerant. Rigid line set covers are also required. The orientation also describes the requirements to qualify the home, install the DHP in the main living area, submit all paperwork, and teach the homeowner how to use the DHP. Contractors are alerted that their first installation will be inspected.

Changes to the pilot in 2011, include modifying the incentive value from $1000 to $750 for installations completed after January 31, 2011. Idaho Power redistributed the funds to increase the incentive amount for electric-furnace to air-source heat pump incentive option in the H&CE Program. Idaho Power will work closely with participating contractors to help them understand and apply the incentive process with their clients. DHPs remain an emerging technology in the Idaho Power service area.

New marketing methods will be used in 2011 to reach the target audience. Methods include participating in residential coupon mailer packets reaching all of the Idaho Power service area, posting articles about DHPs on social media sites that Idaho Power participates in, and advertising the pilot in newspapers that service specific areas not generally serviced with natural gas. The traditional ongoing methods, such as bill inserts and direct mail, will also continue in 2011.

Satisfaction surveys will be mailed to all 2011 incentive recipients. The response data will be compiled and analyzed to help improve all facets of the pilot. The final pilot evaluation report is expected to be available in 2012. The regional DHP Pilot team will provide limited QA inspections for the region in 2011. Idaho Power will investigate augmenting the regional QA inspection with its own QA inspections.

Energy Efficient Lighting

	2010	2009
Participation and Savings		
Participants (bulbs)	1,190,139	549,846
Energy Savings (kWh)	28,082,738	13,410,748
Demand Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$2,442,931	$1,190,065
Oregon Energy Efficiency Rider	$58,347	$17,300
Idaho Power Funds	$0	$1
Total Program Costs—All Sources	$2,501,278	$1,207,366
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.020	$0.020
Total Resource Benefit/Cost Ratio	$0.031	$0.024
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	4.54	
Total Resource Benefit/Cost Ratio	3.49	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2002	

Description

ENERGY STAR® qualified CFLs 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.

The Energy Efficient Lighting program achieves residential energy savings by replacing less-efficient lighting with more-efficient technology. According to research performed by NEEA, the average older home has 38 light bulbs. New homes have an average of 77 light bulbs. Changing these bulbs represents a low-cost, easy way for all customers to achieve energy savings.

2010 Activities

There was record participation in 2010 in the Energy Efficient Lighting program, with incentives provided on over one million bulbs. This represents approximately three bulbs per residential account.

Two promotions, one for spiral bulbs and the other for specialty bulbs, such as globes, three-way, and reflector bulbs, were held during 2010. Idaho Power continued to run an independent retailer promotion focusing on spiral bulbs priced at about 99 cents per bulb. Fluid Market Strategies (Fluid) managed this promotion.

In August, the program achieved a contract sales threshold that lowered the administrative fee paid to Fluid by $0.48 per bulb, resulting in significant cost-savings for the rest of the promotion year. Savings are estimated at $133,005.

Idaho Power participated in the Bonneville Power Administration (BPA) Change a Light promotion focused on specialty bulbs. Portland Energy Conservation, Inc. (PECI), managed this promotion from January to March 2010. BPA awarded the promotion contract to Fluid, beginning April 1, 2010. Fluid administered the promotion for the remainder of 2010 under a new name, Simple Steps, Smart Savings™.

Both PECI and Fluid provided enhanced field support as part of their promotions. Contractor staff from these two organizations visited stores on a regular schedule to check pricing, stock, and signage. The result was better visibility of Idaho Power's promotions.

Additional 2010 program activities included direct distribution, in-store events, and an on-air radio interview. Idaho Power has a small direct distribution program, whereby bulbs are given directly to customers at approved venues. The idea is that, 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 direct distribution have been developed to ensure customer fairness. Eight considerations are used to evaluate the appropriateness of distributing CFL bulbs to customers and include identifying venues that have an energy efficiency tie, a residential focus, and allow for an Idaho Power presence.

During 2010, Idaho Power participated in five in-store events with large and small national retailers designed to communicate directly to customers at the point of sale. Idaho Power had light displays at the entrances of stores, and Idaho Power staff was available to answer questions about CFLs.

Idaho Power participated on The HomeFix Show with Joe Prin on 670 KBOI AM. The show reaches an audience estimated at 19,320 listeners. Program staff from Idaho Power spent an hour on air answering phone-in questions about lighting. This is an effective, low-cost marketing and education opportunity.

Cost-Effectiveness

In 2010, the RTF updated savings assumptions for CFLs to differentiate the savings between the typical twist bulbs and the various specialty bulb types. The RTF determined that specialty CFL use differed from standard CFL use. While standard twist-CFLs have a storage rate of 36 percent, the RTF voted to reduce the storage rate for specialty bulbs to 20 percent to account for higher costs, smaller package size, and reduced socket saturation. Take-back for specialty bulbs was reduced from 5 percent to 0 percent. While the annual savings for retail spiral bulbs remained at 24 kWh after accounting for storage and take-back, annual savings for specialty-bulbs range from 12.9 kWh to 38 kWh, depending on their application. For detailed cost-effectiveness assumptions, metrics, and sources, see *Supplement 1: Cost-Effectiveness*.

Customer Satisfaction and Evaluations

In 2010, NEEA released the 2009–2010 *Residential Lighting Market Research Study* prepared by the energy consulting, testing, and certification company KEMA. The study concluded that sales of ENERGY STAR CFLs declined in the Northwest between 2008 and 2009 and identified several potential factors for this, including the economy and a "leveling off" of the market. Sales of utility discounted CFLs declined less significantly than non-utility discounted CFLs. In the NEEA study, the 2010 sales in the Northwest were expected to be higher than 2009. The study also concluded consumer satisfaction with CFLs remains fairly high. A copy of this report is included in NEEA Market Effects Evaluations in *Supplement 2: Evaluation*.

2011 Strategies

No major changes are anticipated for the Energy Efficient Lighting program in 2011. Idaho Power plans to continue in-store promotions for buy downs and markdowns of bulbs. The spiral bulb promotion with Fluid has been extended through December 2011. Since Fluid is the contractor for both promotions, the Change a Light contract extension was negotiated to leverage the cost-savings associated with the regional promotion. The administrative fee for this Idaho Power-only promotion will be at the same rate as the BPA specialty promotion.

The specialty bulb promotion with BPA will go through September 2011 and may be extended beyond. Idaho Power will continue to distribute limited quantities of bulbs directly to customers at approved public energy efficiency events and continue to participate in in-store educational events. The company will monitor the market and emerging technologies.

Idaho Power is monitoring industry trends and federal regulations to determine impacts to utility lighting programs, such as impacts on market transformation, cost-effectiveness, and value of utility programs. Specifically, Idaho Power is monitoring implementation of the *Energy Independence and Security Act of 2007* (EISA) and the new lighting technologies, such as light-emitting diode (LED) and new energy-efficient EISA-compliant incandescent bulbs.

EISA requires, by 2012–2014, specific light bulbs use 30 percent less energy than today's incandescent bulbs. For traditional A-lamp, the standards will apply to 100-watt (W) bulbs in January 2012 and end with 40-W bulbs in January 2014. By 2020, a Tier 2 would become effective requiring bulbs to be at least 70 percent more efficient, effectively equal to today's CFLs.

The EISA, CFLs will be one of the options for customers. The market is unlikely to change immediately for several reasons. First, the efficiency standards are phased in over several years starting in 2012. The 75-W bulbs must meet the standards by 2013 and 60-W bulbs by 2014. Second, many specialty bulbs, such as reflectors, globes, and three-way bulbs are exempt from the law. Third, an incandescent bulb or other bulb technology that is 30 percent more efficient could satisfy the law; however, CFLs are 75 percent more efficient. In 2010, manufacturers introduced a halogen bulb that meets the requirements but offers only the minimum energy savings required under the law.

LED light bulbs are on display at many major retailers. In 2010, ENERGY STAR released criteria for LED replacement bulbs. As of January 2011, there were approximately 40 products on this list; 87 percent are reflectors. Market prices for LED products are significantly higher than CFLs and EISA-compliant halogens. Idaho Power will continue to evaluate the price, availability, savings, and cost effectiveness to see if a cost-effective program could be offered. Idaho Power will continue to monitor trends and developments in LED technologies.

Energy House Calls

	2010	2009
Participation and Savings		
Participants (bulbs)	1,602	1,266
Energy Savings (kWh)	1,198,655	928,875
Demand Reduction (MW)		n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$724,895	$479,174
Oregon Energy Efficiency Rider	$37,435	$90,420
Idaho Power Funds	$0	$0
Total Program Costs—All Sources	$762,330	$569,594
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.054	$0.052
Total Resource Benefit/Cost Ratio	$0.054	$0.052
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	3.06	
Total Resource Benefit/Cost Ratio	3.06	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2002	

Description

The Energy House Calls program helps manufactured and mobile home owners with electric heat reduce electricity use by improving the home's efficiency. This energy efficiency program provides free duct-sealing and additional efficiency measures to Idaho Power customers living in Idaho or Oregon in a manufactured or mobile home and use 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 five CFL bulbs; providing two furnace filters, along with replacement instructions; testing water heater temperature for proper setting; and distributing energy efficiency educational materials for manufactured home occupants. The value of the service is not charged to the customer. The value of a typical cost range of the average service call would be $325 to $550, depending on the complexity of the repair. Idaho Power provides the customer with the sub-contractor contact information. Customers access the service by directly calling one of the recognized, certified sub-contractors specially trained to provide these services in their region.

Program delivery is under contract with Ecos IQ, Inc., a company with experience managing and supplying duct-sealing service programs. Ecos IQ, Inc., coordinates the sub-contractors performing local weatherization and energy efficiency services, processes sub-contractor paperwork, invoices Idaho Power, and pays sub-contractors for work performed.

2010 Activities

Idaho Power renegotiated the contract with Ecos IQ, Inc., for continuing delivery of the Energy House Calls program during 2010. Energy House Calls serviced approximately 1,600 manufactured homes during 2010, resulting in over 1,000,000 kWh savings. Eighty percent of the homes serviced were located in the Treasure Valley. Twenty percent were outside the Treasure Valley, consisting of 13 percent in Southern Idaho and 7 percent in Eastern Idaho. QA was conducted on 5 percent of the homes serviced in the program.

In 2010, lower participation was expected in areas outside the Treasure Valley, based on the assumption those areas were saturated. However, Idaho Power continued to market to all locations within the company's service area. Throughout the year, it became evident that there is still potential in areas outside of the Treasure Valley.

Marketing campaigns included a bill stuffer sent to all Idaho Power residential customers, a radio spot on the The HomeFix Show with Joe Prin on 670 KBOI, a new program brochure to be used by Idaho Power representatives in the field and at Idaho Power-sponsored events, and a redesign of the direct-mail letter, including a Spanish version. The direct-mail letters were sent to specific customers four times during 2010. These additional marketing efforts created increased participation above expectations. The bill insert was sent in August; the radio spot occurred in March; the brochure was completed in June; the direct-mail letter was revised in March; and direct mailings were sent in January, April, May, and July.

Cost-Effectiveness

Savings for Energy House Calls are primarily based on the savings of the duct-sealing of an electrically heated home. The savings are specific to the different climate zones within the company's service area. Different savings are also used based on differing types of heating and cooling equipment in the homes where the measures are installed. Additional savings are gained from the up-to-five CFL bulbs directly installed in the homes at the time that the duct-sealing is done.

The RTF reviewed the savings assumptions for duct sealing in manufactured homes in 2010; however, the regional utilities are still reporting the 2007 RTF deemed savings to BPA through its Planning, Tracking, and Reporting website. To align with the savings reported by the region to BPA, the 2007 RTF deemed savings have been applied to all Idaho Power homes serviced in 2010. The updated RTF savings assumptions will be applied to the program in 2011. The revised savings have been reviewed, and the program remains cost-effective. For more detailed information about the cost-effectiveness savings and assumptions, see *Supplement 1: Cost-Effectiveness*.

Customer Satisfaction and Evaluations

To monitor QA in 2010, third-party audits, with a survey question, were conducted in 5 percent of the homes served. Of the 78 homes inspected, 76 homes of those customers expressed that the Energy House Call was a positive experience. Twenty-three of the 78 homes received a "fail," requiring the sub-contractor to return to the home to remedy the situation.

Based on the review of the "failed" homes by an Ecos IQ, Inc., representative, 23 homes out of 78 was not an acceptable failure rate. Twenty-one of the 23 failed homes were the result of a single sub-contractor. An Ecos IQ, Inc., representative raised the concern to the contractor after each series of QAs throughout the year. Since the last of the QAs conducted were at the end of 2010, it was apparent

the issues had not been resolved. Ecos IQ, Inc., took corrective action against the sub-contractor after the final results were received.

The remedy to these issues—after the first QA inspections completed in February 2010—was to halt the use of the worker who had the majority of the problems until he received intensive training from a master trainer and met the master trainer's criteria post-training. The sub-contractor's performance seemed to improve during the second round of QA inspections in June, but worsened during the December inspections, which was followed by termination of the contractor from the program.

In 2010, Idaho Power contracted with Global Energy Partners, LLC, to provide a process evaluation of the Energy House Calls program. This evaluation included a program data review, program logic model, internal customer survey evaluation, industry best-practices comparison, conclusions, and recommendations. The final report was received in February 2011 and indicated that the program "is successful despite a declining base of eligible participants," and "is surpassing its participation goals." The report also noted that the program "is well designed," and "has an invested project specialist." The program "incorporates several best practices," and "has an actionable marketing plan." Additionally, "the majority of participants recommend the program to others." The main recommendation for improvement was to develop a more accurate estimate of the eligible market for this program. Idaho Power intends to incorporate this recommendation using the recently completed residential end-use survey results. The results of the evaluation are in *Supplement 2: Evaluation*.

The company is currently analyzing other recommendations made by the consultants for possible future implementation. Program changes made in 2011 will be highlighted in next year's *Demand-Side Management 2011 Annual Report*.

2011 Strategies

Plans for the upcoming year include continuing the direct-mail campaign to all of the Idaho Power service area to improve participation. Because of the rapid turnover of customers in manufactured homes, Idaho Power will update the mailing list currently used for the direct-mail letters. The list is generated from homes designated as being manufactured or mobile identified from the Idaho Power's CIS. That list is analyzed for homes that appear to use electric heat, based on kWh usage during certain months of the year. The company will also continue to explore low-cost 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 new, potential program participants.

In June 2011, the contract with Ecos IQ, Inc., expires. Idaho Power may not renew the contract because it may be possible that the program could be fully administered internally after that date. The logistics of such a decision will be evaluated in advance of the contract expiration.

ENERGY STAR® Homes Northwest

	2010	2009
Participation and Savings		
Participants (homes)	630	474
Energy Savings (kWh)	883,260	705,784
Demand Reduction (MW)		1.1
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$369,344	$348,829
Oregon Energy Efficiency Rider	$6,093	$5,928
Idaho Power Funds	$168	$866
Total Program Costs—All Sources	$375,605	$355,623
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.033	$0.039
Total Resource Benefit/Cost Ratio	$0.051	$0.055
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	2.68	
Total Resource Benefit/Cost Ratio	2.05	
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 energy-efficient construction practices for new, single-family homes. This program targets the lost opportunity savings and summer-demand reduction that result from energy-efficient new construction codes and building practices. Idaho Power accomplishes this by increasing the efficiency of the residential building envelope and air-delivery system.

The ENERGY STAR Homes Northwest residential construction program builds homes that 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 home performance specialists (HPS) and are certified by Advanced Energy, an organization that conducts the certification inspections for Idaho and the US Environmental Protection Agency (EPA). The homes are more efficient, comfortable, and durable than standard homes constructed according to local building codes.

Homes that earn the ENERGY STAR label include six required specifications. The specifications found in all ENERGY STAR qualified homes are 1) effective insulation, 2) high-performance windows, 3) tight construction and sealed ductwork, 4) energy-efficient lighting, 5) ENERGY STAR-qualified appliances, and 6) efficient heating and cooling equipment.

In 2010, builders involved in ENERGY STAR Homes Northwest receive a $400 incentive per home built to the Northwest Builder Option Package (BOP) standards, for both gas- and electric-heated homes in Idaho Power's service area. Builders who enter their homes in a Parade of Homes received the

standard $400 incentive plus an additional $600 incentive to encourage builders to construct ENERGY STAR homes and enter those homes in future Parade of Homes events.

The Idaho Power program collaborates with many local entities for program management, such as ENERGY STAR Homes Northwest and builders. A large part of the program's role in 2010 was conducting education and training activities for residential new construction industry partners.

2010 Activities

Although the 2010 housing market was still in a downturn throughout the Idaho Power service area, 630 ENERGY STAR homes were certified. This is the highest number of homes ever certified in the Idaho Power service area in a single year. Idaho Power believes the increase in certifications during 2010 is due to builders' understanding of the value in building to ENERGY STAR standards.

Idaho Power implemented a process improvement in 2010 by moving from paper to paperless certification and incentive processing. HPS electronically entered all field certification data on the Northwest ENERGY STAR (NWES) database. The Idaho Power program specialist then pulled data from the database to process incentives. This new process allowed builders to receive their ENERGY STAR certifications and their Idaho Power incentives more quickly. It alleviated misplaced paperwork and increased HPS accountability regarding placing certification information into the database in a timely manner.

Idaho Power conducted numerous ENERGY STAR promotional activities during 2010. The company presented energy efficiency awards at the Building Contractors Association of Southwest Idaho , Inc., (BCASWI) Parade of Homes awards banquet and at the Snake River Valley Building Contractors Association (SRVBCA) Parade of Home awards banquet.

The company maintained a presence in the building industry by supporting the Building Contractors Associations (BCA), throughout Idaho Power's service area. Specifically, the company participated in the BCASWI Builder's Expo, the SRVBCA Builder's Expo, the Magic Valley Builders Association Parade of Homes, the BCASWI Parade of Homes, SRVBCA Parade of Homes, Building Contractors Association of South East Idaho (BCASEI) Parade of Homes, and the Idaho BCA Convention.

Media campaigns were used as a method to heighten awareness of the ENERGY STAR Homes Northwest program. The program specialist was a guest on The HomeFix Show with Joe Prin on 670 KBOI AM, discussing the benefits and values of the ENERGY STAR Homes Northwest program for both builders and potential homeowners.

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 qualified homes in their local Parade of Homes events. A program bill stuffer sent information to all residential customers in the Idaho Power service area.

Idaho Power was a sponsor of the 2010 St. Jude Dream Home in conjunction with NWES. This ENERGY STAR qualified home was also certified as a National Association of Home Builders (NAHB) green home and was the first certified and tested net-zero-energy home in Idaho. Idaho Power and NWES produced a media campaign consisting of radio and newspaper advertising promoting ENERGY STAR Homes and the St. Jude Dream Home. *A Healthy Homes Guide*, a booklet—targeting consumers—containing tips and information on healthy, energy-efficient homes, was produced and distributed throughout the valley as a part of this campaign. In addition, a bill insert promoting

ENERGY STAR Homes and the St. Jude Home was sent out during the campaign. The media campaign culminated in June with the St. Jude Dream Home raffle, with proceeds benefiting the St. Jude Children's Hospital.

In October 2010, the St. Jude Dream Home 2011 kickoff and groundbreaking took place. The Dream Home will be a ENERGY STAR qualified home. This 2011 home will also be raffled off to benefit the St. Jude Children's Hospital. Idaho Power will again collaborate on a smaller scale with Northwest ENERGY STAR to support the St. Jude Dream Home project.

Idaho Power also sponsored Realtor and builder trainings. Two trainings were held in the Boise area during 2010 to train both builders and HPS on the new 2011 ENERGY STAR specifications. Northwest ENERGY STAR and Energy Inspectors delivered these trainings respectively. Northwest ENERGY STAR trainers in the Boise area delivered two additional ENERGY STAR Homes Realtor trainings. One class toured and received training in the "net-zero" St. Jude Dream Home. Fifty area Realtors attended both sessions combined. Informal conversation with participants indicated positive feedback regarding the training.

Cost-Effectiveness

Cost-effectiveness analysis assumptions for the 2010 ENERGY STAR Homes Northwest program remain the same as 2009. There were no changes in building codes and standards or program specifications that impacted the program. In summer 2010, the RTF released updated savings for this program accounting for the new 2011 higher baseline of building standards for ENERGY STAR homes. These new savings estimates will be incorporated in the 2011 program analysis. Savings for the 2010 analysis were estimated to be 1,400 annual kWh for a typical home built to ENERGY STAR home standards based on a 2008 analysis provided by Ecotope, Inc,. The report was provided in the *Demand-Side Management 2009 Annual Report Supplement 2: Evaluation*. For more detailed information about the cost-effectiveness savings, calculations, and assumptions, see *Supplement 1: Cost-Effectiveness*.

Customer Satisfaction and Evaluations

The HPS works with builders to ensure the constructed home is compliant with the Northwest electric-only BOP. Along with verifying the installation of building components and equipment through on-site inspections, prior to being qualified, the home must pass a blower door test, air-duct leakage test, and combustion back-draft tests.

Ten percent of homes certified in the ENERGY STAR Homes Northwest program are reviewed for QA purposes.

The State-Certifying Organization (SCO) performs QA. Energy Inspectors was the SCO for the State of Idaho from May 2009 to December 31, 2010. Energy Inspectors is not renewing their contract for 2011. The Washington State University Energy Extension Program has been contracted by NEEA to assume QA and technical assistance duties within the State of Idaho. QA results from 2010 are in *Supplement 2: Evaluation.*

2011 Strategies

The ENERGY STAR Homes Northwest program will be undergoing some changes for 2011. Due to the 2009 International Energy Conservation Code (IECC) implementation on January 1, 2011, and adoption by the State of Idaho, gas-heated homes are no longer cost effective. As a result, Idaho Power will no

longer be paying incentives on gas-heated homes. The program will be transitioning to an electrically heated homes program, effective January 1, 2011. Builders involved in ENERGY STAR Homes Northwest 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. During the October 26, 2010, EEAG meeting, incentive payments on all electric homes and the new code specifications on other utilities was discussed.

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. The company is planning a media campaign in conjunction with Northwest ENERGY STAR in late spring/early summer 2011 throughout the Idaho Power service area. This campaign will promote the 2011 St. Jude Dream Home, ENERGY STAR Homes Northwest, and the program builders. This campaign will include sending a bill stuffer in June to all residential customers.

Heating & Cooling Efficiency Program

	2010	2009
Participation and Savings		
Participants (homes)	217	349
Energy Savings (kWh)	1,104,497	1,274,829
Demand Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$314,963	$458,216
Oregon Energy Efficiency Rider	$12,706	$20,032
Idaho Power Funds	$0	$125
Total Program Costs—All Sources	$327,669	$478,373
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.025	$0.034
Total Resource Benefit/Cost Ratio	$0.083	$0.054
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	2.50	
Total Resource Benefit/Cost Ratio	1.22	
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 and services to residential customers.

The objective of the H&CE Program is to acquire kWh savings and provide customers an energy efficient alternative to other forms of electric space heating. Incentives are provided to residential customers and HVAC contractors who install eligible equipment and services. The eligible measures in 2010 included air-source heat pumps, open-loop water-source heat pumps, and evaporative coolers.

Participating HVAC companies are required to perform all installations and services, with the exception of evaporative coolers, which can be self-installed. The program continued through 2010 with the same portfolio of incentives.

2010 Activities

The H&CE Program's list of measures and incentives during 2010 included the following:

- Air-source heat pump customer incentives for replacing an existing air-source heat pump with a new air-source heat pump are $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 are $300 for minimum efficiency 8.2 HSPF, and $400 for minimum

efficiency 8.5 HSPF. Homes with oil or propane heating systems must be located in areas where natural gas is not available.

- Incentives for customers or builders for new construction installing an air-source heat pump in a new home are $300 for minimum efficiency 8.2 HSPF, and $400 for minimum efficiency 8.5 HSPF.

- 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 is $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 is $1,000 for minimum efficiency 3.5 COP. Homes with oil or propane heating systems must be located in areas where natural gas is not available.

- The incentive for customers with new construction installing an open-loop water-source heat pump in a new home is $1,000 for minimum efficiency 3.5 COP.

- The evaporative cooler customer incentive is $150.

To build and maintain relationships with participating contractors, the program specialist visited several participating contractor shops throughout the year to promote the program, check for program understanding, and offer support. The program performed 19 random OSV, 8.6 percent of the total applicants, to verify the information submitted on the paperwork matched what was actually installed at customers' sites. Overall, OSV results were favorable with respect to the contractors; however, a few contractors had not installed the required sensor to lock-out strip heat above a certain outdoor temperature. The program continues to work with contractors to help them understand why this requirement is necessary.

The federal tax credits, available to qualifying homeowners who install energy-efficient products as outlined in Section 25C of the Internal Revenue Service (IRS), continued through 2010. It included a credit of up to $1,500 toward the installation of high-efficiency residential heating and cooling systems. Feedback from contractors to Idaho Power indicated that the tax credit influenced the ratio of applications received by Idaho Power relative to the HSPF rating of the equipment being installed. The federal tax credit program required a minimum HSPF of 8.5. Approximately 95 percent of the applications received by Idaho Power in 2010 for air source heat pumps were for the 8.5 HSPF rating. The balance of applications was for the 8.2 HSPF rating.

The program was promoted at various home and garden trade shows and at other community events, such as the Idaho Green Expo and St. Luke's Women's Show. These opportunities provided direct access to customers, creating the opportunity to raise awareness of Idaho Power's energy efficiency incentives.

A new, color brochure was developed, printed, and distributed. It is tailored to the residential homeowner. The brochures were given to contractors as selling tools when they meet with their residential clients. Idaho Power also provides the brochures to interested customers at trade shows and events. The flier addressed the need for a marketing resource describing the availability of the incentives, provided guidance on heat pumps, and described important purchase considerations.

Idaho Power held training sessions for contractors in February, March, June, and September that provided general instruction on heat pumps and program guidelines. Approximately 25 people attended the sessions. These training sessions remain an important part of the program for two reasons. First, trainings create opportunities to invite additional contractors into the program. Second, trainings support the existing participating contractors with an increased ability to leverage the incentive program to residential clients.

Idaho Power improved the method to process heat pump incentive applications. Using CLRIS, a database was developed that allowed for all of the application data to be entered and stored for analysis and for immediate initiation of the incentive payment process. The process improvement enabled the program specialist to eliminate multiple files previously used to store, manage, and evaluate data.

Idaho Power uses a third-party contractor to process the incentive applications and provide trade-ally support. In March 2010, Honeywell, Inc., was selected as the new contractor. This change was made to decrease costs, shorten turnaround time for processing incentive applications, and improve the contractor and customer satisfaction. The contractors received increased local support because the Honeywell, Inc., representative could visit contractors at their businesses as needed.

In addition, Honeywell, Inc., provides a variety of timely contractor services, such as picking up incentive applications, returning calls quickly, and responding to questions in a thorough and customer-oriented fashion. Honeywell, Inc., has a local presence, so Idaho Power uses them to help troubleshoot customer/contractor issues via the representative for Honeywell, Inc., resulting in quicker resolution and increased contractor and customer satisfaction. Idaho Power developed a portal that Honeywell, Inc., uses as a program database to process incentive applications. This allows Idaho Power to maintain the database within the company's system that is secure and yet accessible to the third-party contractor.

Cost-Effectiveness

In August 2010, the RTF reviewed savings and costs for air-source heat pumps along with proper sizing and installation saving specific to the Northwest. Idaho Power adopted the updated savings and calculated savings for all air-source heat pump conversions with an HSPF rating of 8.5 using the 2010 deemed-savings. These savings are specific to climate zone and the presence or absence of central A/C prior to conversion. The updated RTF analysis replaced prior year's savings that were based on an independent third-party analysis conducted for Idaho Power by Ecotope, Inc., in 2009.

Savings estimates for the conversion from electric forced-air furnaces or upgrades from older air-source heat pumps to open-loop water-source heat pumps were not analyzed by the RTF. The savings for these measures are unchanged from the 2009 report. While savings for air-source heat pump upgrades were also analyzed and released by the RTF in 2010, the savings were not adopted because the analyzed baseline efficiency was an HSPF of 8.5, which is not aligned with the 2010 program design. In 2010, the H&CE Program gave incentives for heat pump upgrades at two tiers of efficiency: tier 1 for air-source heat pumps with an efficiency of at least 8.2 HSPF and tier 2 for heat pumps greater than or equal to an HSPF of 8.5. Savings for open-loop water-source heat pumps and air-source heat pump upgrades are documented in the 2009 Ecotope, Inc., *Heat Pump Sizing Specifications and Heat Pump Measures Savings Estimates* that was provided in the *Demand-Side Management 2009 Annual Report Supplement 2: Evaluation*. For more detailed information about the cost effectiveness savings, calculations, and assumptions, see *Supplement 1: Cost-Effectiveness*.

Customer Satisfaction and Evaluations

Customer satisfaction surveys were mailed to 127 participants in the H&CE Program in 2010. Surveys containing responses to 14 questions were returned from 66 participants who received incentives for new heat pumps, resulting in a 52 percent response rate. Respondents were asked to rate the amount of influence the Idaho Power incentive had in their purchasing decision. Sixty-eight percent said it had "some" influence, while 13 percent said it had "a lot" of influence. The remaining 19 percent said it had influenced their decision "not at all." The participants were asked if they were aware of the incentive program prior to the purchase of their heat pump. Seventy percent said they were aware of the incentive, while 30 percent said they were not aware of the incentive program. When the participants were asked to rate their contractor's knowledge of the incentive program, 73 percent said their contractor was "very knowledgeable." Another 15 percent said their contractor was "somewhat knowledgeable." The balance of respondents rated their response as "neutral," or "not very knowledgeable," or "not knowledgeable at all," with percentages of 5 percent, 5 percent, and 3 percent respectively. The majority of respondents, 77 percent, indicated that they heard about the H&CE Program from their heating and cooling contractor. Seventy-seven percent of the respondents indicated they are "very satisfied" with the H&CE Program, and 83 percent said they "definitely would" recommend the program to a friend or relative.

The survey results indicate the incentive program continues to have substantial influence in customers' decision process about purchasing a new heat pump. This is further supported in that the majority claimed being aware of the incentive program prior to the purchase. The current marketing efforts, therefore, will be continued, and new tactics will be added. In addition, the incentive process will be further streamlined to continue the favorable opinion the customers conveyed regarding installing contractors. The contractors' success with the program relies on their ability to understand it, thereby encouraging more of their customers to participate in it. The survey responses also indicate the majority of market awareness is being generated by the efforts of the contractors. This would indicate that other marketing efforts through Idaho Power will further the message while reducing the program dependency on the contractors' efforts.

Surveys containing eight questions were also sent to the nine incentive recipients for new evaporative coolers. Five surveys, a 55 percent response rate, were received from these recipients. When they were asked if they were aware of the incentive prior to their purchase, 60 percent said they were, and 40 percent said they were not. When asked to rate how much influence the incentive had in the purchasing decision, 60 percent said the incentive had "a lot" of influence, while 40 percent said it had influenced the decision "not at all." Sixty percent of the respondents indicated they heard about the H&CE Program from a retail store.

For ongoing QA, Honeywell, Inc., is the third-party contractor responsible for performing OSVs. Honeywell, Inc., inspected approximately 22 percent of the projects completed in 2010 for the H&CE Program. Honeywell, Inc., performed OSVs on 48 installations. Of these 48 installations, 77 percent, or 37 installations, were either compliant or were brought into compliance. Contractors for the remaining 11 projects that had difficulty passing the OSV did not receive an incentive payment.

In 2010, Idaho Power contracted with Global Energy Partners, LLC, to provide a process evaluation of the H&CE Program. This evaluation included a program data review, program logic model, internal customer survey evaluation, industry best-practices comparison, conclusions, and recommendations. The final report was received in February 2011 and noted that this program is "successful" and "well designed." The program "is meeting its goals," "incorporates several best practices," and "has an actionable marketing plan and satisfied participants." Recommendations for program

improvement centered on enhancing relationships with HVAC contractors, especially those who have not yet participated in this program. The results of the evaluation are in *Supplement 2: Evaluation.*

The company is currently analyzing other recommendations made by the consultants for possible future implementation. Program changes made in 2011 will be highlighted in the *Demand-Side Management 2011 Annual Report.*

2011 Strategies

New program marketing tactics will be used in 2011 to reach the target audience. Tactics include direct mail to target customers, participating with companies distributing coupon packets from local businesses to the Idaho Power service area, posting articles about the heat pump incentives on social media sites that Idaho Power participates in, and advertising in newspapers in specific areas not generally serviced with natural gas. The ongoing method of using bill inserts will continue in 2011.

Idaho Power and the program specialist will work closely with the participating contractors to help them maximize their ability to market the program incentives with their clients. The development of a premium group of participating contractors is a vital component to the success of the program. The program specialist and residential customer representatives will visit these contractors and prospective contractors throughout 2011.

Satisfaction surveys will be mailed to all 2011 incentive recipients. The response data will be compiled and analyzed to help improve all facets of the program.

Enhancements are being made to the incentives available for air-source heat pumps. The first change will help reduce complexity in the program. Currently there are incentives for two efficiency levels, heat pumps with minimum HSPF of 8.2 or 8.5. Only 4.8 percent of the incentives paid in 2010 were for heat pumps with the minimum 8.2 HSPF. The 95.2 percent balance of paid incentives were for heat pumps with a minimum 8.5 HSPF. In response to this trend and due to the measure's non-cost-effectiveness, the 8.2 HSPF option is being eliminated in first quarter 2011. This includes all the types of program equipment being replaced, such as old air-source heat pumps, electric furnaces, oil furnaces, and oil/propane furnaces. It also includes new heat pumps being installed in new home construction. The second modification will be to increase the incentive for changing electric furnaces to air-source heat pumps. This incentive will increase from $400 to $1000. In 2010, about 35 percent of the air-source heat pump incentives paid were for the replacement of electric furnaces. The goal is to increase participation by 30 percent in this particular category.

Idaho Power will hold several training sessions for contractors. General instruction on heat pumps as well as program guidelines will be provided. These training sessions remain an important component of the program. Sessions create opportunities to invite additional contractors into the program while fortifying the abilities of the existing participating contractors to promote the incentive program to residential clients.

Continuous process improvement during 2011 will focus on maximizing the productivity of Idaho Power staff and participating contractors involved with the program, and enable more time to be placed on tasks that add direct value to the program. The goal is to identify opportunities for complexity-reduction related to tasks performed by Idaho Power and participating contractors. Initial areas of focus will be on program information and distribution through the H&CE Program website pages. The navigation and display of content will be reviewed and improved to simplify access and

comprehension. This is necessary due to the amount of technical information and forms contained in this program.

Home Improvement Program

	2010	2009
Participation and Savings		
Participants (homes)	3,537	1,188
Energy Savings (kWh)	3,986,199	1,338,876
Demand Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$944,716	$321,140
Oregon Energy Efficiency Rider	$0	$0
Idaho Power Funds	$0	$0
Total Program Costs—All Sources	$944,716	$321,140
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.016	$0.019
Total Resource Benefit/Cost Ratio	$0.035	$0.032
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	8.66	
Total Resource Benefit/Cost Ratio	4.39	
Program Characteristics		
Program Jurisdiction	Idaho	
Program Inception	2008	

Description

The Home Improvement Program offers incentives to homeowners for installing attic insulation that reduces energy-use throughout the year while impacting summer peak demand by reducing A/C use. The program pays an incentive of 15 cents per-square-foot to Idaho residential customers in the Idaho Power service area for additional attic insulation professionally installed after June 1, 2009. Any insulation contractor can provide this service and there is no preferred-contractor list associated with this program. New insulation must increase the R-value by R-10 or greater.

A large majority of Idaho Power's residential customers qualify for the program, though specific program qualifications are required to receive the incentive. Only existing, single-family homes qualify for an incentive. This includes duplexes and townhomes with the attic area over conditioned space. Homes must have central A/C or be electrically heated. Only attic insulation installed over conditioned space qualifies for an incentive. An insulation contractor must professionally install the insulation. Incentives are paid on added attic insulation up to an R-50.

2010 Activities

In May 2010, a process improvement was implemented when Idaho Power outsourced the program incentive processing to Advertising Checking Bureau (ACB), Inc., a third-party incentive-processing company. ACB, Inc., receives, enters, and processes all incentive applications for the Home Improvement Program. The change resulted in improved incentive processing and payment time.

Various marketing techniques were employed in 2010. A targeted direct-mail campaign began in May 2010 and ran through July 2010. The direct-mail letter was sent to targeted customers using the

PRIZM marketing segmentation software. Response to this direct-mail piece was very positive with large numbers of incentive applications coming in during those months. Between May 2010 and July, 640 insulation incentive payments were received and paid.

A Val-Pak Advertisement, in conjunction with the See ya later, refrigerator® program, was sent out in August, September, and October to select zip codes in the Treasure Valley and Eastern Idaho. Phone-call volume increased substantially within days of each of the three mailings.

A bill insert went out in July, followed by a dual-program bill insert in conjunction with the See ya later, refrigerator program in November. Both bill inserts resulted in an increased volume of calls regarding program details and provided opportunities for customer education.

The Home Improvement Program paid 3,537 incentives during 2010, the first full year of the program's implementation.

Cost-Effectiveness

Savings estimates for the Home Improvement Program attic-insulation measure were based on a simulation modeling and analysis performed by Ecotope Inc. Their modeling simulated homes with and without the duct work in the attic area of the home and focused on cooling energy savings benefits from increased attic insulation. A 2,200 square-foot house was used as the prototype similar to ENERGY STAR homes. For more detailed information about the cost-effectiveness savings, calculations, and assumptions, see *Supplement 1: Cost-Effectiveness*.

During 2010, the RTF reviewed and deemed weatherization measures including attic insulation from a heating perspective by climate zone. Because this analysis did not include the impacts of central A/C, Idaho Power was unable to adopt these savings estimates for 2010 savings. As of February 2011, the RTF decided to review these measures again and make corrections in 2011. Idaho Power expects the savings from cooling will be included in the new deemed savings. The overall cost-effectiveness of the program measure can then be assessed by the presence of central A/C, electric heat, or both.

Customer Satisfaction and Evaluations

Third-party contractors reviewed 7 percent of all insulation jobs completed in the Home Improvement Program for QA purposes. Of the QA completed in 2010, two installations were considered inadequate. These issues were addressed with the insulation installers and corrected.

In 2010, the Home Improvement Program was included in the residential process evaluation. Idaho Power contracted with Global Energy Partners, LLC, to provide a process evaluation of the Home Improvement Program. This evaluation included a program-data review, program-logic model, internal customer survey evaluation, industry best-practices comparison, conclusions, and recommendations. The final report was received in February 2011 and showed that the program has "surpassed its participation goal," is "cost effective," has a "very low cost per kWh saved," and "is very affordable for customers." Recommendations for program improvement included the need to obtain more primary data from customers to determine customer/contractor satisfaction, barriers to participation, and customer receptiveness to offering additional measures. The results of the evaluation are in *Supplement 2: Evaluation*.

The company is currently analyzing other recommendations made by the consultants for possible future implementation. This program is scheduled to be included in an impact evaluation in 2011.

2011 Strategies

Plans for the upcoming year include a targeted direct-mailing campaign in May and June. An informational bill stuffer is being planned for June or July 2011. Due to the success of the Val-Pak mailing, similar mailings are being planned throughout the year with additional zip codes receiving the mailer. A marketing campaign consisting of newspaper advertisements and radio spots is planned for fall 2011.

In addition to the questions on the customer's program *Qualification Application*, a marketing question, "How did you hear about the program?" was added in 2011.

Analysis is currently underway to look at adding new measures to the Home Improvement Program in 2011. Measures being considered and analyzed are wall/floor insulation, windows, duct sealing, and air infiltration. These measures were discussed in the October 26, 2010, EEAG meeting.

Home Products Program

	2010	2009
Participation and Savings		
Participants (appliances/fixtures)	16,322	9,499
Energy Savings (kWh)	1,443,580	1,638,038
Demand Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$813,171	$498,980
Oregon Energy Efficiency Rider	$18,990	$12,283
Idaho Power Funds	$0	$50
Total Program Costs—All Sources	$832,161	$511,313
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.057	$0.031
Total Resource Benefit/Cost Ratio	$0.070	$0.051
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	2.45	
Total Resource Benefit/Cost Ratio	1.67	
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, lighting, or other products. ENERGY STAR is a government-backed program that designates products as energy efficient. Appliances and products with ENERGY STAR must meet higher, stricter efficiency criteria than federal standards.

With the addition of ENERGY STAR qualified freezers in July 2010, current offerings and related incentives include clothes washers ($50), refrigerators ($30), freezers ($20), light fixtures (up to $15 per fixture), ceiling fans with light kits, or ceiling fan light-kit attachments (up to $20 per fixture). Program participation is a simple process for customers. The customer completes the brief incentive application, submits it with a copy of the sales receipt, and, if the purchase qualifies, receives an incentive check by mail.

The Home Products Program has two additional product offerings providing the retailer/manufacturer the incentive as opposed to the consumer. This can translate into lower retail prices on the most efficient units, such as those in the showerhead promotion. These products are select energy-efficient electronics and low-flow showerheads.

Incentive payments to retailers and manufacturers, rather than the end consumer, were intended to drive the manufacture, distribution, and promotion of more energy-efficient consumer electronics at the retail level. This mid/upstream incentive model is potentially powerful in changing those markets with a high volume of sales and small per-product incentive dollars.

2010 Activities

Marketing of the Home Products Program to customers occurs primarily through retail outlets. Idaho Power provided information to store managers and employees through training sessions at store staff meetings and through periodic visits by Idaho Power representatives. Collateral materials, such as program brochures with application forms, were distributed to nearly 100 retail stores as needed. In addition, program modifications were delivered via letters sent directly to store managers.

In May 2010, Idaho Power began outsourcing the processing of applications for the Home Products Program to a third-party vendor, ACB, Inc. Through an RFP process, a vendor was chosen and ACB, Inc., began receiving applications. The capability of this vendor allows customers to complete an online application, print the confirmation page, and mail it with a copy of the sales receipt.

Idaho Power promoted the program directly to residential customers via retail store salespeople, Idaho Power field staff, bill stuffers, community promotions, an updated Idaho Power program website, an hour-long interview on The HomeFix Show with Joe Prin on 670 KBOI, and other outreach activities. During 2010, bill stuffers detailing the program were mailed to all residential customers, one during the summer (July), and one during the holiday season (November).

With the addition of freezers and the new processing vendor, the program brochure was redesigned and distributed to retailers in July 2010. The brochure also serves as the application. The customer fills out the self-mailer application, includes the sales receipt in the built-in pouch, seals the application with the self-adhesive flap, and places a stamp on the application.

The brochure redesign allowed Idaho Power the opportunity to add an option for customers who wish to donate their entire incentive to Project Share, an energy assistance program in which Idaho Power partners with the Salvation Army to help those in need. From July through December, Home Products Program participants donated $170 to this cause. A Project Share donation thank you card was created for the Home Products Program and sent to customers who chose to donate.

In addition, hang-tags were produced and distributed to lighting showrooms and retailers who sell qualifying fixtures. Static clings—small, sticky decals—are also distributed to retailers for placement on qualifying clothes washers and refrigerators. The prominent focus for using hang tags and clings was to highlight the respective incentive amounts.

The Consumer Electronics Initiative, in partnership with NEEA, continued in 2010. The initiative provides an incentive to retailers who sell flat-screen televisions, monitors, and desktop computers that are 30 percent more energy efficient than the minimum ENERGY STAR standard (ENERGY STAR +30 percent). Computer monitors and desktop computers were added in 2010. NEEA managed all aspects of the program, while, in 2010 and beyond, the funding for the initiative is taken from NEEA partners' general funding. Only the retailers who signed contracts with NEEA are involved, though nearly all retail stores in Idaho Power's service area will have had the opportunity to participate. Idaho Power assisted in marketing the initiative through a bill insert during the holiday season (December) highlighting the new "Energy Forward" energy-efficient electronics marketing campaign.

The Home Products Program exceeded the targets for 2010. Idaho Power paid 16,322 incentives during 2010. Incentives were issued for approximately 8,885 clothes washers; 6,025 refrigerators; 223 freezers; 676 light fixtures; 36 ceiling fans; and three light kits.

In June 2010, Idaho Power began a retailer-based promotion for low-flow showerheads. Fluid Market Strategies (Fluid), as part of the BPA's regional Simple Steps, Smart Savings™ program, administers the program. The industry standard for showerheads is 2.5 gallons per minute (GPM). Showerheads in the Simple Steps, Smart Savings promotion use 2.0 GPM or less, resulting in less hot water per shower and less electricity used to make hot water. The promotion is similar to the lighting promotions with incentives paid to manufacturers, resulting in lower retail prices for the more efficient units.

The showerhead promotion began in June 2010. Marketing for this program includes point-of-purchase signs, Idaho Power Web content, and the BPA-sponsored website for the regional promotion. Fluid staff conducts retailer training, visits store site to check retail signs, and monitors sales. In 2010, there were 474 promotional showerheads sold in the Idaho portion of Idaho Power's service area, resulting in $3,318 in incentives and $199 in administrative costs. The break-out of showerheads sold included 198 of the 1.5 GPM showerheads and 276 of the 2.0 GPM showerheads. Savings realized included 20,935 kWh for the 1.5 GPM showerheads and 18,432 kWh for the 2.0 GPM showerheads.

Cost-Effectiveness

Two new measures were added to the Home Products Program in 2010, ENERGY STAR freezers and low-flow showerheads. Savings and cost assumptions for freezers were based on deemed data from the RTF. The RTF savings methodology was also used for low-flow showerheads. After the original RTF savings were released in May 2010, Idaho Power adjusted the savings downward based on the electric hot water heater saturation in the Idaho Power service area. This adjustment was based on information from Idaho Power's *2004 Home Energy Survey*. The electric hot water heater saturation percentage has since been updated with the *2010 Home Energy Survey* results, and the low-flow showerheads still remain cost-effective.

Clothes washers and refrigerator savings and cost assumptions were also updated by the RTF in 2010. In summer 2010, the RTF approved changing the methodology and new baselines for calculating the saving for ENERGY STAR. In 2009, Idaho Power based annual savings of 215.19 kWh and 96.51 kWh for clothes washer and refrigerator respectively from the Nexant, *Demand Side Management Potential Study (2009)*. As a result of the RTF update, the annual energy savings for clothes washers was reduced to 121 kWh, while refrigerator savings was reduced to 44 kWh. These reductions in savings attributed to the program's overall reduction in annual savings between 2009 and 2010, despite the increase in participation.

While the measures reviewed by the RTF still remain cost-effective, it was discovered that the Idaho Power incentives for refrigerators and freezers are higher than the RTF's updated participant cost assumptions. Idaho Power plans to review these costs and incentive levels in 2011 and adjust the program accordingly.

The RTF also updated savings and cost assumptions of for ENERGY STAR lights and fixtures in 2010. These assumptions include LED down-light fixtures, which were unavailable prior to 2010. Of the 676 light fixtures processed in 2010, the 15 LED fixtures were shown to be not cost-effective. In addition to the LED light fixtures, the three ceiling fan light kits that received incentives in 2010 were also shown to be not cost-effective. There is little information on ceiling fan light kits, and the savings and cost assumptions are based on Idaho Power staff research and assumptions. Since the Home Products Program gives incentives to all ENERGY STAR products, the ceiling fan light kits and LED fixtures have remained in the program for consistency purposes and customer satisfaction; however, Idaho Power will determine if the measure will be removed or modified from the program's offerings when the other measures within Home Products Program are reviewed in 2011.

For more detailed information about the cost-effectiveness of these measures, see *Supplement 1: Cost-Effectiveness*.

Customer Satisfaction and Evaluations

Retail salespeople assisted in promoting the program to Idaho Power's and the retailers' mutual customers. Information gathered from a question on the incentive application form indicated salespeople are a proven, effective avenue for marketing the program. In fact, 55 percent of the responses indicated salespeople were how they learned about the incentive program. This is followed by 20 percent learned from in-store materials (brochures), 11 percent from one of two bill inserts sent to all residential customers, 3 percent from the newspaper, 2 percent from the Idaho Power website, 8 percent from other means, and 1 percent from radio.

The *Demand-Side Management 2009 Annual Report* indicated that a process evaluation would be completed for the Home Products Program in 2010. Home Products Program was a relatively new program offering in 2010, and many process changes were implemented; therefore, it was decided to conduct a process evaluation on other residential programs in 2010. The descriptions and copies of the process evaluations conducted in 2010 are included in *Supplement 2: Evaluation*.

2011 Strategies

Based on 2010 successes, the marketing strategy for 2011 will remain similar with only minimal adjustments and updates as needed. The Home Products Program will cross-promote with other Idaho Power programs as opportunities arise and develop promotional materials. Idaho Power will continually review potential products for addition to the program during 2011 and beyond.

Participation for 2011 may not have the same spike as 2010; however, participation is expected to remain constant, or decrease slightly from 2010 numbers. The company speculates much of the increase in applications in 2010 was due not only to greater customer awareness of the program, but also due to the Idaho State Energy Efficient Appliance Rebate Program (SEEARP) available to Idaho residential customers beginning in March 2010. This state-run program offered incentives on many of the same products as Idaho Power, but at an even higher incentive. Therefore, Idaho Power customers could apply and receive both incentives, spurring purchases of these appliances during the time the SEEARP was in effect. Funds supporting the SEEARP program were exhausted in 2010 and are no longer available in 2011.

The Consumer Electronics Initiative partnership with NEEA will continue in 2011. Idaho Power will seek opportunities to promote this initiative, when applicable.

Idaho Power will continue to participate in the regional showerhead promotion, Simple Steps, Smart Savings. The BPA promotion will run through September 2011, with a likely extension through the remainder of 2011.

Oregon Residential Weatherization

	2010	2009
Participation and Savings		
Participants (homes)	1	1
Energy Savings (kWh)	320	2,907
Demand Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$0	$0
Oregon Energy Efficiency Rider	$4,575	$6,359
Idaho Power Funds	$1,475	$1,285
Total Program Costs—All Sources	$6,050	$7,644
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.011	$0.203
Total Resource Benefit/Cost Ratio	$0.062	$0.223
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	2.28	
Total Resource Benefit/Cost Ratio	1.17	
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 Rate Schedule No. 78. On a customer's request, an Idaho Power representative visits the home to analyze it for energy efficiency. An estimate of costs and savings for specific measures is given to the customer. Idaho Power offers financial assistance for a portion of the costs for weatherization measures, either as a cash incentive or with a 6.5 percent interest loan.

2010 Activities

During the month of June, Idaho Power sent every Oregon residential customer an informational brochure about energy audits and home weatherization financing. A total of 15 Oregon customers responded. Each of the 15 customers returned a card from the brochure indicating interest in a home energy audit, weatherization loan, or incentive payment. Twelve audits and responses to customer inquiries to the program were completed.

Idaho Power issued one rebate totaling $46.81 for 320 kWh savings. The rebate and related savings was for ceiling insulation. There were no loans made through this program during 2010. Two customer responses were directed to Cascade Natural Gas because their heating source was gas. No customers canceled their request.

Cost-Effectiveness

The Oregon Residential Weatherization program is a statutory program as provided for in Oregon Rate Tariff No. 78. The cost-effectiveness of this program is defined within this tariff. Page 4 of Tariff No. 78 lists the measures that are determined to be cost effective and the required measure life cycles for specific measures. This tariff also includes the cost-effective limit (CEL) for measure lives of 7, 15, 25, and 30 years. In 2010, the only project competed under the Oregon Residential Weatherization program was a ceiling insulation measure. The CEL for insulation is $1.34 per annual kWh saved, and the actual levelized cost of energy savings for the one 2010 project is just over 1 cent from the UC perspective and 6 cents from the TRC perspective, resulting in this program being considered cost effective.

2011 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

	2010	2009
Participation and Savings		
Participants (homes)	35	57
Energy Savings (kWh)	164,894	247,348
Demand Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$34,283	$43,954
Oregon Energy Efficiency Rider	$5,119	$5,571
Idaho Power Funds	$0	$0
Total Program Costs—All Sources	$39,402	$49,525
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.018	$0.015
Total Resource Benefit/Cost Ratio	$0.031	$0.029
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	8.61	
Total Resource Benefit/Cost Ratio	3.57	
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 and site it in Idaho Power's service area are eligible for a $500 rebate through the Rebate Advantage program. Salespersons receive a $100 incentive for each qualified home they sell.

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 Housing Program (NEEM) establishes quality-control 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 reduce 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.

2010 Activities

During 2010, Idaho Power paid 35 incentives on new manufactured homes, which accounted for approximately 165,000 kWh savings. The depressed housing economy in 2010 had a dramatic effect on all types of housing and contributed to a lower number of incentives than expected. At least nine of the previously participating dealerships closed between 2009 and 2010, which had a negative impact on the

program. Communications with other Northwest utilities conducting similar programs indicated they also saw a sharp decrease in participation.

The marketing strategy during 2010 was more customer-focused than in the past, as opposed to strictly using dealerships to promote the program. An Internet-based Google AdWords campaign was created mid-July, whereby specific keyword searches prompt potential program participants to click on an advertising link that guides them to the Idaho Power website where they learn more about energy efficiency programs. From July through December, the campaign received 302 clicks with 285,160 impressions.

Idaho Power continued to support dealerships in 2010 by providing them with Rebate Advantage brochures, applications, and call-out cards as needed. Customer representatives visited these dealerships to distribute material, promote the program, and answer salespersons' questions. In April, a letter was sent to all dealerships promoting the program, the benefits of ENERGY STAR qualified homes, and the qualifications to participate. This letter was intended as more of a reminder piece and to generate inquiries they may have since all of the dealerships are aware of the program and many of them participated in 2010.

Cost-Effectiveness

ENERGY STAR manufactured home ratings are used to determine the energy savings of this program. These savings are specific to the heating and cooling zones in Idaho Power's service area where the home will be placed. In addition to varying by climate zone, savings vary depending on whether the customer purchases a home with or without central A/C or if a heat pump or forced-air furnace is chosen. For detailed lists of savings by climate zone and housing options, see *Supplement 1: Cost-Effectiveness*.

Customer Satisfaction and Evaluations

Idaho Power did not conduct any surveys or research on this program in 2010. A program impact evaluation of the Rebate Advantage program is planned in 2011. A process evaluation of the Rebate Advantage program was scheduled for 2010; however, due to the economic downturn and decreased participation in this program, evaluation funds were reallocated to Energy House Calls.

2011 Strategies

Idaho Power plans to continue the Rebate Advantage program in 2011, explore new marketing methods, and promote the program using internal resources and externally at the dealership level. Customer representatives will enhance relationships with dealerships by visiting each dealership quarterly, offering program support, answering questions, and distributing materials. The involvement of local Idaho Power personnel interacting with the local dealers reemphasizes the importance of promoting the benefits of ENERGY STAR qualified homes and products.

The company will continue to explore additional marketing strategies aimed directly at the end consumer. These will include continuing, and revising as needed, the Google AdWords campaign; sending a bill insert to all residential customers, which may be shared with the ENERGY STAR Homes Northwest program; and revisiting the direct-mail letter finalized in 2010. The letter will be sent to select Idaho Power customers using Claritas PRIZM segmentation methodology matched with company customer information.

See ya later, refrigerator®

	2010	2009
Participation and Savings		
Participants (refrigerators/freezers)	3,152	1,661
Energy Savings (kWh)	1,567,736	1,132,802
Demand Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$548,872	$297,587
Oregon Energy Efficiency Rider	$16,207	$7,815
Idaho Power Funds	$0	$0
Total Program Costs—All Sources	$565,079	$305,402
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.054	$0.041
Total Resource Benefit/Cost Ratio	$0.054	$0.041
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	1.88	
Total Resource Benefit/Cost Ratio	1.88	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2009	

Description

The See ya later, refrigerator® program provides incentives to customers for recycling refrigerators and freezers. The program acquires energy savings through the removal of refrigerators and stand-alone freezers from residential homes throughout Idaho Power's service area, focusing on secondary and spare units commonly found in basements and garages. Customers receive a $30 incentive check mailed after removal of the unit. Although all qualified units are collected, the program is targeting older, extra units for maximum savings.

Idaho Power contracts with JACO to provide most services for this program. Idaho Power provides participant confirmation, supplemental marketing, and internal program administration. Marketing includes newspaper ads, bill inserts, *Customer Connection* articles, website content, and promotion at events.

JACO provides customer service, unit pickup, unit recycling, reporting, marketing assistance, and incentive payments. Customers call the JACO customer service center regarding program questions and scheduling unit collections.

JACO crews pick up units at customers' homes. While still at the customers' homes, JACO cuts the cord, and the door seals so the refrigerator can no longer be used. JACO then transports and ships the units to the final recycler. JACO issues the incentive payments to customers and tracks the unit information at the account level. JACO contracts with Runyon, Saltzman & Einhorn (RS&E), a marketing firm, to provide marketing support. RS&E has experience marketing utility refrigerator recycling programs nationwide and brings expertise and proprietary market research to Idaho Power's program.

The See ya later, refrigerator name is trademarked by PacifiCorp. Through its JACO contract, Idaho Power has been granted the rights to use this trademark. In 2010, PacifiCorp issued brand guidelines specifying the capitalization, comma use, and trademark symbol for the name.

2010 Activities

During 2010, the program recycled 664 freezers and 2,488 refrigerators for an associated annual savings of 368,520 kWh and 1,199,216 kWh, respectively.

In 2010, Idaho Power made several program improvements and worked with JACO to refine program delivery. Early in 2010, Idaho Power and JACO refined the customer verification process to ensure timely evaluation of participant eligibility. This program requires some sharing of customer data with JACO. Customers enroll in the program directly with JACO. Idaho Power receives participant data daily, reviews the information, approves or denies the participant, and transfers completed files back to JACO. Several process improvements were made to this data transfer procedure. Idaho Power developed an archive system to store transferred files and refined a mechanism to search records. Programming adjustments were made by JACO to ensure data accuracy.

A second program improvement to increase customer satisfaction was the addition of an option for participants to donate their incentive to Project Share. Project Share is an energy assistance program in partnership with the Salvation Army. Project Share helps customers in need pay for energy services including fuels, bills, and furnace repairs. Upon enrollment in See ya later, refrigerator, participants are given the option to receive their $30 incentive or to donate it to Project Share. Research on similar donation mechanisms show 2 percent of people choose this option[1]. The option was launched in April 2010. Since the option became available, 2.5 percent of participants have donated their incentive, raising $2,010 for Project Share.

The See ya later, refrigerator program also qualified Idaho Power for the US EPA Responsible Appliance Disposal (RAD) program. RAD is a voluntary partnership program that began in October 2006 to help protect the ozone layer and reduce emissions of greenhouse gases. Idaho Power joined as a RAD program partner in August 2010. The program is free of charge. Companies, such as utilities, involved in appliance recycling agree to report on units collected and materials recycled. JACO completes this report for Idaho Power at no charge. The benefits of the program include use of EPA RAD logo on marketing materials and opportunities for public recognition by EPA, which can serve as an additional free or low-cost marketing opportunity.

Cost-Effectiveness

In early 2010, a regional review of refrigerator/freezer recycling programs was undertaken by the RTF. The results were approved in June. The previous savings assumption based on the average life was 682-kWh annual savings with a remaining measure life of eight years for either refrigerators or freezers. The updated savings split out the impacts between freezers and refrigerators and resulted in a differential remaining measure life. These changes were based on data collected from regional utility programs. Refrigerators were deemed to have an average remaining life of nine years with an annual average savings of 482 kWh, and freezers were assigned a shorter remaining life of six years with higher savings

[1] Source: http://www.taxadmin.org/fta/rate/checkoff.html

at 555 kWh of annual savings. Both program measures remained cost effective in 2010. For details, see *Supplement 1: Cost-Effectiveness*.

Customer Satisfaction and Evaluations

JACO tracks unit statistics for each unit collected, including information on how the customer heard about the program and when the customer enrolled. Unit statistics about the unit collected include the age of the unit, the location it is housed, and other data, which help to refine Idaho Power's assumptions regarding cost-effectiveness.

Results of the 2010 unit data showed that 21 percent of units the program picked up were stand-alone freezers, and 79 percent of the units were refrigerators. Forty-eight percent of the units were secondary, 33 percent primary, and 19 percent were unknown. The average vintage of units collected was 1983, with 63 percent of the units manufactured between 1965 and 1990, generally the least-efficient years of manufacture.

The program reclaims or recycles up to 95 percent of the components of each unit collected. In 2010, this translated into over 425,489 pounds of material. Reclaimed materials may include oils or refrigerants that can be distilled and then reused.

JACO and Idaho Power also track data related to the marketing effectiveness of the program. Results of customer tracking information indicate 45 percent of customers report learning of the program through bill inserts, which ran in March, July, and October. Twenty percent of customers report learning of the program through a friend or neighbor. Other word-of-mouth activities, such as events and utility personnel, account for an additional 2 percent of signups. Although appliance retailers also refer customers to the program, Idaho Power does not pursue this marketing channel because a retailer selling a new unit will usually pick up and recycle the old one. Newspaper advertisements comprise seven percent of enrollments. Eighty-one percent of customers enrolling in the program use the toll-free telephone number. Nineteen percent use the online enrollment form.

Idaho Power uses the customer information that JACO and the company collect to target future marketing efforts and increase effectiveness of marketing while reducing the cost. Figure 7 indicates information sources and percentage of responses regarding the 3,152 customers reporting hearing about the program through particular sources. The category "Other" includes sources, such as community events, electric utility offices, marketing services, repeat customers, truck ads, Web Internet searches, and unknown sources.

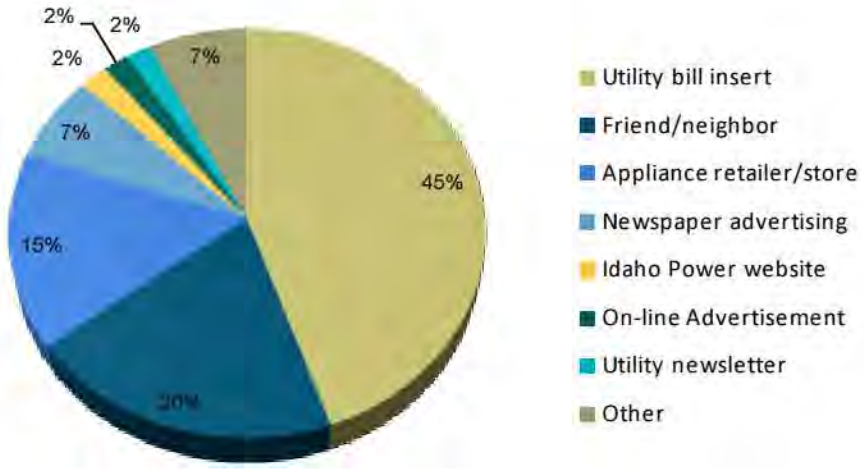

Figure 7. How customers heard about See ya later, refrigerator®

2011 Strategies

Idaho Power plans to continue implementing the program and managing the contract with JACO. The media plan for 2011 includes newspaper ads, bill inserts, Valpak ads, and customer newsletters, pending available space. Keyword pay-per-click ads will be on Google all year. Idaho Power through RS&E will also run Yahoo behavioral target online ads. The company will continue promotion at energy efficiency and community outreach events and on the Idaho Power website.

A process evaluation of the See ya later, refrigerator program is scheduled for 2011.

Weatherization Assistance for Qualified Customers

	2010	2009
Participation and Savings		
Participants (homes/non-profits)	400	437
Energy Savings (kWh)	3,741,652	4,678,815
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	$1,321,132	$1,294,862
Total Program Costs—All Sources	$1,321,132	$1,294,862
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.027	$0.021
Total Resource Benefit/Cost Ratio	$0.035	$0.035
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	4.68	
Total Resource Benefit/Cost Ratio	3.22	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	1989	

Description

The WAQC program provides funding to install cost-effective weatherization measures in qualified owner-occupied and rental homes that are electrically heated. In 2010, 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 nonprofit 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 program, CAP agencies in the Idaho Power service area serve as the administrators of WAQC. Federal funds are allocated to the Idaho Department of Health and Welfare and Oregon Housing and Community Services, then to CAP agencies based on US Census data of qualifying household income 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 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. Homes participating in this program must be electrically heated.

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. Consistent with the State of Idaho Weatherization Assistance Program, WAQC offers several measures that have costs but do not save energy or 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 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. Nonprofit building measures that have costs, but do not save energy or savings cannot be measured, are health and safety, vents, furnace repair, and home energy audits.

For more details on the WAQC program, view the most recent regulatory report, *Weatherization Assistance for Qualified Customers 2009 Annual Report*, April 1, 2010, located in *Supplement 2: Evaluation.*

2010 Activities

During 2010, CAP agencies weatherized 373 electrically heated homes in Idaho and 27 in Oregon, totaling 400 weatherized homes. Annual energy savings were 3,452 MWh for Idaho and 289 MWh for Oregon. There were no buildings housing nonprofit organizations that serve special needs populations weatherized in 2010. The dollar allotment for this fund will carry over and be available for use in 2011.

Cost-Effectiveness

The cost-effectiveness for the WAQC program is determined using an energy savings audit program known as Energy Audit 4 (EA4). The EA4 audit program is used by state weatherization programs and is approved for use by the DOE. During an initial audit of a potential home, the auditor begins the use of an EA4. The EA4 compares efficiency of measures prior to weatherization to the efficiency after the proposed improvement. The output of the EA4 savings-to-investment ratio (SIR) is analogous to a B/C ratio. If the EA4 computes a SIR of 1.0 or higher, where the energy-savings benefits of the measures outweigh the cost of the project, the CAP agency is authorized to complete that energy-saving measure(s). In addition to the individual measure SIR, the entire home weatherization job is required to show a SIR of 1.0 or higher. In some cases, the SIR accounts for measures that provide no actual savings, but are provided for either the health or safety of the customer or are required to make the other measures with savings more effective. Cost-effectiveness details are located in *Supplement 1: Cost-Effectiveness*.

Customer Satisfaction and Evaluations

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 Idaho State Department of Health and Welfare reviewing homes weatherized by each of the other CAP agencies. Results show that all CAP agency weatherization departments are weatherizing in accordance with federal guidelines.

Idaho Power personnel reviews weatherized homes with special needs customers as needed or requested by customers. Annually, Idaho Power participates in the audits of 5 percent of the homes weatherized under the WAQC program. Additionally, the DOE audits the state agencies each year. The DOE audits include field work as well as paperwork and billing audits.

2011 Strategies

Idaho Power will continue program funding and participate in the review of WAQC. The company is involved with the State of Idaho's Policy Advisory Council that serves as an oversight group for weatherization activities in Idaho. Through this forum, Idaho Power participates in the weatherization policy for the State of Idaho.

Weatherization Solutions for Eligible Customers

	2010	2009
Participation and Savings		
Participants (homes)	47	41
Energy Savings (kWh)	313,309	211,720
Demand Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$216,202	$160,459
Oregon Energy Efficiency Rider	$2,306	$0
Idaho Power Funds	$9,917	$2,536
Total Program Costs—All Sources	$228,425	$162,995
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.056	$0.059
Total Resource Benefit/Cost Ratio	$0.056	$0.059
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	1.98	
Total Resource Benefit/Cost Ratio	1.98	
Program Characteristics		
Program Jurisdiction	Idaho[a]	
Program Inception	2008	

[a] Oregon Rider balance of $2,306 will be re-classed to the Idaho Rider in 2011.

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 larger weatherization program, WAQC. The program measures and implementation process mirrors WAQC. The installation of energy efficiency measures and repairs are allowed as long as the improvements have a SIR of 1.0 or higher or that ensure the savings due to interaction between measures. The amount spent on each home is limited to an annual average per home. Homes considered for this program will be electrically heated and either owned or rented. If rented, the landlord's permission is needed, backed with an agreement of not increasing the unit's rent for a minimum of two years.

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

2010 Activities

Home Energy Management, LLC, is the contractor who administers the program throughout Idaho Power's southern region. The total budget for this area was $200,000, which includes a 10 percent administrative fee for Home Energy Management, LLC. Qualifying guidelines for the year were between 175 percent and 250 percent of the federal poverty level.

By year end, Home Energy Management, LLC, weatherized 40 electrically heated homes of eligible Idaho Power customers, at no cost to the customer. Energy savings achieved was 259,100 kWh/year, with an average home savings of 6,477 kWh/year. Total costs were $182,478, with an average job production cost of $4,147. Twenty manufactured homes, 17 single-family homes, two duplexes, and one multi family unit were weatherized in 2010. Thirty-six of the 40 weatherized homes in the Southern region were owner occupied, and four were renter occupied.

In October 2010, Energy Zone, LLC, started weatherizing homes for this program in Idaho Power's Canyon region. By year-end, Energy Zone, LLC, weatherized seven homes saving 54,209 kWh per year, or 7,744 average kWh per home. Energy Zone, LLC, averaged $4,494 per home production costs. Total spending was $34,607, which included administrative fees for the contractor. Of the seven homes weatherized, three were single-family homes and four were manufactured homes. Six of the homes were owner occupied, and one was renter occupied.

Marketing of the program was done several ways without additional costs to the program. The contractors advertised the program in their regions by creating program fliers that were distributed by contractor employees throughout mobile home parks and at specific property management Realtor offices. Fliers were also left with previous customers who 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 2010.

Cost-Effectiveness

Like the WAQC program, Weatherization Solutions for Eligible Customers program uses the energy audit software program, EA4. During an initial audit of a potential home, the auditor completes an energy-savings audit using the EA4. The EA4 audit program is used by state weatherization programs and approved for use by the DOE. If the EA4 computes a SIR of 1.0 or higher, Home Energy Management, LLC, and Energy Zone, LLC, are authorized to complete that energy-saving measure. In addition to the individual measure SIR, the entire home weatherization job project is required to show a SIR of 1.0 or higher. Idaho Power customer representatives in the Southern and Canyon region verify installed measures in homes of participating customers using actual job sheets submitted by Home Energy Management, LLC, and Energy Zone, LCC. In addition to the job screening done by the agency, Idaho Power also assesses cost-effectiveness, looking at the UC test of each measure that is allowed as part of the contract with Home Energy Management, LLC, that currently includes windows, doors, insulation, venting, infiltration, ducts, health and safety measures, water heater, pipes, furnace repair, furnace replacement, and CFL installation. The cost-effectiveness testing by measure is consistent with standard methods used in other programs. Actual savings and cost measure submitted by CAP agencies is used in place of deemed measure values to asses cost-effectiveness. The actual average annual savings estimates are considered more accurate than a deemed number because of the number of inputs that are applied from the EA4 data analysis. The final savings numbers per measure and a complete list of cost-effectiveness assumptions can be reviewed in *Supplement 1: Cost-Effectiveness*.

Table 6. 2010 Weatherization Solutions for Eligible Customers: individual measure breakdown

Measure	Instances installed	kWh Savings	Cost of measures
Windows	19	49,343	$ 27,399
Doors	19	27,514	14,936
Wall Insulation	4	13,317	4,774
Ceiling Insulation	27	48,565	23,863
Floor Insulation	33	62,075	45,887
Venting	23		2,981
Infiltration	27	39,965	14,455
Ducts	26	28,152	7,774
Health and Safety	29		10,326
Water heater	14	2,825	1,345
Pipes	36	1,822	3,605
Furnace repair	8		1,829
Furnace replacement	6	32,808	24,984
CFL install	44	6,923	972
Audit invest	46		12,221
Total		**313,309**	**$ 197,351**

Customer Satisfaction and Evaluations

Of the 47 participants, all customers provided written positive feedback about the work done in their home. Each customer filled out a Customer Response/Job Completion Form provided to them at the final visit and completion of weatherization services at their home. Most customers made positive comments about how professional the weatherization crew was during the weatherization of their home. Many customers thanked Idaho Power for the program and reported learning more about using energy wisely.

2011 Strategies

The program will continue to be offered to Idaho Power customers in the Southern and Canyon regions in 2011. Home Energy Management, LLC, is under contract to weatherize 28 homes in Idaho Power's Southern region, and Energy Zone, LLC, is under contract to weatherize 56 homes in Idaho Power's Canyon region. Idaho Power will begin efforts to expand the program into the Eastern region.

The annual average cost of $6,500 per home will be used in 2011 in order to ensure a whole-house approach. All measures will meet the minimum savings-to-investment threshold when applied through the state-approved energy audit.

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 either purchasing or renting their homes may be eligible. Idaho Power plans to save an average of 9,000 kWh per weatherized home per year for a total energy savings of 756,000 kWh annually.

As in 2010, identification of potential participants will be made through several means. Energy Assistance/LIHEAP applicants at CAP agencies who do not meet 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 fliers explaining

the program and qualifying guidelines to customers heating their homes with electricity provided by Idaho Power in both regions.

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COMMERCIAL/INDUSTRIAL SECTOR OVERVIEW

Description

Idaho Power's commercial and industrial sector consists of over 64,000 customers. In 2010, the commercial sector's number of new customers increased by 298, an increase of 0.5 percent. The energy usage of the commercial customers varies from a few kWh each month to several hundred thousand kWh per month. Commercial customers represent approximately 28 percent of billed sales.

Industrial customers and the special contract sector are Idaho Power's largest individual energy consumers. There are approximately 121 industrial customers. These customers can use millions of kWh per month and account for about 23 percent of Idaho Power's system sales.

Energy efficiency annual energy savings increased by 27 percent to 118,473,001 kWh in 2010 when compared to 2009 program results. Custom Efficiency represented the highest change in magnitude of savings by increasing program 2010 annual savings by 19,744,463 kWh over 2009 annual savings, with 91 additional projects over 2009. Building Efficiency saw the highest percentage increase amongst commercial and industrial programs, with annual savings increasing by 43 percent over 2009 annual savings. Table 7 is a summary of savings and expenses from the four commercial and industrial energy efficiency programs and one demand response program.

Programs

Table 7. 2010 Commercial/Industrial program summary

			Total Costs		Savings	
Program	Participants		Utility	Resource	Annual Energy (kWh)	Peak Demand (MW)
Demand Response						
FlexPeak Management	60	sites	$ 1,902,680	$1,902,680	n/a	47.5
Total			**$ 1,902,680**	**$1,902,680**		**47.5**
Energy Efficiency						
Building Efficiency	70	projects	$ 1,509,682	$ 3,312,963	10,819,598	0.9
Easy Upgrades	1,535	projects	3,974,410	7,655,397	35,824,463	7.8
Holiday Lighting	25	projects	46,132	65,308	248,865	0.0
Custom Efficiency	233	projects	8,778,125	17,172,176	71,580,075	9.5
Total			**$14,308,349**	**$28,205,844**	**118,473,001**	**18.2**

Note: See Appendix 3 for notes on methods 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 retrofit measures with prescriptive incentive amounts for lighting, HVAC, motors, building shell, plug loads, and grocery refrigeration. These energy-saving measures give customers the option of personally 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 savings improvements for lighting, cooling, building shell, and energy-control options. Participants in the Building Efficiency and Easy Upgrades programs can receive incentives of up to $100,000 per site per year for any approved, completed projects. The Custom

Efficiency program offers financial incentives for large commercial and industrial energy users undertaking projects that are more complex 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.

The Holiday Lighting program encourages commercial customers to purchase more-efficient LED holiday lights. This program is offered to both Idaho and Oregon Customers. In 2010, the Holiday Lighting program was evaluated from several perspectives, including customer participation, access to LEDs in the market place, and cost-effectiveness. Based on the outcome of the research, the Holiday Lighting program will not be offered in 2011.

Idaho Power continues to offer the Oregon Commercial Audits program to medium and small commercial customers.

FlexPeak Management is a demand response program 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. In May 2010, Idaho Power received the Demand Response Program Achievement Award from the Peak Load Management Alliance (PLMA) for its FlexPeak Management demand response program. PLMA is a non-profit group of organizations with a business interest in electrical load that is dedicated to creating a community of expertise on demand response and its role in creating efficient electricity markets.

The Green Rewind measure is available to Idaho Power's agricultural, commercial, and industrial customers. The sectors' combined 56 Green Rewind motors achieved a total savings of 243,091 kWh in 2010, with 20 commercial/industrial sector motors contributing 55,126 kWh and 36 irrigation sector motors contributing 187,965 kWh.

Ten service centers in Idaho Power's service area have the necessary equipment and training to perform Green Rewinds. An estimated 1,200 motor rewinds are occurring annually within these service centers. Currently, five service centers have signed on as Green Motors Practice Group (GMPG) members. 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 $2.00 per horsepower (hp) for each National Electrical Manufacturers Association (NEMA) Standard hp rated motor between 15 and 5,000 hp that receives 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 quality check and QA.

Idaho Power continues to use the IDL in Boise to advance energy efficiency practices relating to building retrofits, remodels, and new construction. Additionally, the IDL in Boise continues to provide clients with current and accurate information regarding energy efficiency technologies and best practices through monthly newsletters, blog updates, and by hosting and facilitating constituent meetings.

In 2010, Idaho Power contracted with the IDL in Boise to perform the following tasks:

- Develop climate design resources specific to Idaho that can be used to facilitate passive strategies in new commercial and industrial construction projects.

- Conduct research and write a white paper describing a strategy for developing an energy efficiency labeling program for all commercial, industrial, and retail buildings in Idaho.
- Conduct 17 education sessions for architects, engineers, and other design and construction professions on energy efficiency topics.
- Facilitate the Idaho Building Simulation Users' Group to improve the energy efficiency-related skills of design and engineering professionals.
- Conduct research for developing a high-performance speaker's bureau.
- Complete post-occupancy evaluations on three facilities that have incorporated energy efficiency measures.
- Create a demonstration and training area for electrical contractors to learn the necessary skills to successfully install and commission daylight harvesting lighting control systems.
- Research common plug load use profiles in office buildings to identify strategies to reduce plug loads.
- Provide building efficiency consultations, design analyses, and plan reviews to Idaho Power customers.

A considerable amount of time was spent in 2010 reviewing the measure offerings and incentive levels in Easy Upgrades, Building Efficiency, and Custom Efficiency. Several measure changes were made to Building Efficiency due to the state adoption of the 2009 IECC. Both measure offerings and incentive levels within Building Efficiency were changed to address the new code. With a large percentage of lighting projects completed in both Easy Upgrades and Custom Efficiency, lighting was a focus in 2010. Based on that review, several changes will be implemented in 2011 to both programs' lighting offerings. The changes are designed to make the programs more consistent in their application and review process and with the program terms and conditions. Additionally, an increased focus was placed on pre- and post-project inspections on lighting projects.

Other 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. In the 2010 surveys, 55 percent of Idaho Power's large commercial and industrial customers surveyed in 2010 for the Burke Customer Relationship survey indicated Idaho Power was meeting or exceeding their needs in offering energy efficiency programs. Forty-five percent of survey respondents indicated Idaho Power was meeting or exceeding their needs with information on how to save energy or reduce their bill. Sixty-eight percent of respondents indicated Idaho Power was meeting or exceeding their needs with encouraging energy efficiency with its customers. Overall, 74 percent of the large commercial and industrial survey respondents indicated they have participated in at least one Idaho Power energy efficiency program. Of large commercial and industrial survey respondents who have participated in at least one Idaho Power energy efficiency program, 94 percent are "very" or "somewhat" satisfied with the program.

The results from surveying Idaho Power's small business customers indicated that 35 percent of these customers said Idaho Power was meeting or exceeding their needs in offering energy efficiency programs. Forty-nine 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-five percent of respondents

indicated Idaho Power was meeting or exceeding their needs with encouraging energy efficiency with its customers. Overall, 16 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, 87 percent are "very" or "somewhat" satisfied with the program.

In 2011, Idaho Power will focus on successfully integrating all of the new program changes across the sector programs. That focus will include identifying process improvements, supplying energy efficiency specific education to Idaho Power trade allies, contractors, and customers, and completing more pre- and post-project inspections. Additionally, the programs will analyze recommendations from the process evaluations conducted on the commercial and industrial programs in 2010.

Effective July 14, 2012, there will be new Standards for General Service Fluorescent Lamps. Idaho Power is reviewing the new requirements and will consider them when deciding what changes to make for the lighting measures and respective incentives for the 2012 commercial/industrial lighting measures.

Building Efficiency

	2010	2009
Participation and Savings		
Participants (projects)	70	72
Energy Savings (kWh)	10,819,598	6,146,139
Demand Reduction (MW)	0.9	1.3
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$1,466,179	$$1,300,466
Oregon Energy Efficiency Rider	$43,422	$26,323
Idaho Power Funds	$81	$339
Total Program Costs—All Sources	$1,509,682	$1,327,128
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.016	$0.024
Total Resource Benefit/Cost Ratio	$0.035	$0.043
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	4.62	
Total Resource Benefit/Cost Ratio	2.69	
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 can receive incentives up to $100,000. 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 at architects, engineers, and other local design professionals.

Idaho Power is a primary sponsor of the IDL in Boise, which provides technical assistance and training seminars to local architects, engineers, and designers. Much of this activity is coordinated and supported through NEEA's BetterBricks® program. The Building Efficiency program sponsors the biannual BetterBricks awards held in October 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 Building Simulation Users' Group is designed to improve the energy efficiency-related simulation skills of local design and engineering professionals.

2010 Activities

The Building Efficiency program completed 68 Idaho and two Oregon projects in 2010, resulting in 10,552,135 kWh in energy savings in Idaho and 267,493 kWh in energy savings in Oregon. The increase in energy savings is attributed to an increase in the number of projects incorporating energy management control systems for lighting and HVAC.

New construction and major renovation project design and construction life is much longer than small retrofits and requires consistency in program measures and operation. To reduce confusion for customers with long construction projects, the Building Efficiency program did not change in 2010, maintaining a consistent and clear program for customers.

Fourteen measures are offered through this program and include reduced-power-density lighting, daylight photo controls, occupancy sensors, high-efficiency exit signs, premium efficiency HVAC units, additional unit efficiency bonus, efficient complex cooling systems, air-side economizers, reflective roof treatment, high-performance windows, window shading, energy management control system, demand-control ventilation, and variable-speed drives.

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. Seventeen technical training lunches were completed in 2010, with 338 attendees, including architects, engineers, interior designers, and project managers. Topics included Integrated Design Principals, Commissioning, Benchmarking + Measurement and Verification, Daylight in Buildings: Getting the Details Right, Demand Control Ventilation, Daylight Sensing Electric Lighting Controls, High Performance Classrooms, The Role of Life Cycle Cost Assessment in Idaho, and Hybrid Cooling and Performance Modeling.

In 2010, Idaho Power evaluated program changes and modifications to be implemented beginning 2011. The 2009 IECC was implemented in the State of Idaho effective January 1, 2011. The impact of IECC 2009 on program measure savings and incentives were researched and reviewed. The existing measures were evaluated along with the current participation levels for each measure. Customer and customer representative feedback indicated the need to simplify incentive payment calculations. The 2011 Building Efficiency program has been modified to reflect the impact of these recommendations and implementation of IECC 2009.

Cost-Effectiveness

To calculate energy savings, the Building Efficiency program measures 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 not available. 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 regional and national sources including the RTF, the Database for Energy Efficiency Resources (DEER), and the Consortium for Energy Efficiency, Inc. (CEE) are used to calculate the savings achieved over how the building would have used energy absent of efficiency measures.

Building Efficiency incentives are based on a variety of methods depending on the measure type. Incentives are calculated mainly through a dollar-per-unit equation using square footage, tonnage, operating hours, or kilowatt (kW) reduction as the unit being used. Complete measure level details for cost-effectiveness can be found in *Supplement 1: Cost-Effectiveness*.

Customer Satisfaction and Evaluations

In 2010, Idaho Power contracted with The Cadmus Group, Inc., to provide a process evaluation of the Building Efficiency program. This evaluation included a program data review, program logic model, internal customer survey evaluation, industry best practices comparison, and conclusions and recommendations. The final report was received in February 2011 and noted that Idaho Power, as a primary sponsor of the IDL in Boise, provided free technical assistance and training to local architects and designers through the Building Efficiency program. The report also noted that this program increased in participation by 20 percent in the last year. Recommendations for program improvement included the need to update program collateral materials and conduct additional market research with program participants and non-participants. Idaho Power is currently analyzing all recommendations. The complete report is provided in *Supplement 2: Evaluation.*

The company also contracted with The Cadmus Group, Inc., to conduct a *Market Characterization Study* for this program. Among other things, this study includes a scenario that applies a comparison of current and forecasted market penetration to the cost-effective potential estimated in the *Demand Side Management Potential Study, August 14, 2009* report by Nexant. The gap analysis indicates the Building Efficiency program is currently exceeding the savings potential estimates, especially in the HVAC sector. The analysis also shows current program costs per MWh are approximately one-half of the costs estimated in the potential study. The complete report is provided in *Supplement 2: Evaluation.*

The IDL in Boise also performed additional post occupancy evaluations of the program in 2010. The post-occupancy evaluation specifically focused on opportunities for pre- and post-intervention studies and on identifying opportunities for education and further research. The final report is scheduled for delivery in March 2011, and Idaho Power will consider all viable recommendations identified in the report.

2011 Strategies

In 2011, Idaho Power will implement program changes and modifications to align with IECC 2009 as the base line for energy-savings calculations. The 2011 program will have simplified incentive calculations and increased energy efficiencies for qualification. A briefing on the modifications was presented at the October 26, 2010, EEAG meeting, and questions were addressed.

Final reports from The Cadmus Group, Inc.'s, 2010 process evaluations were received in February 2011. All viable process recommendations will be considered and prioritized for implementation in 2011. Process changes implemented in 2011 will be highlighted in the *Demand-Side Management 2011 Annual Report*.

The Building Efficiency program will continue to sponsor technical training through the IDL in Boise. Technical trainings will expand to include two to four education sessions based on energy efficiency education needs of design professionals in the Pocatello, Twin Falls, and Sun Valley markets.

Custom Efficiency

	2010	2009
Participation and Savings		
Participants (projects)	223[a]	132
Energy Savings (kWh)	71,580,075	51,835,612
Demand Reduction (MW)	9.5	6.7
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$8,046,168	$5,816,305
Oregon Energy Efficiency Rider	$717,132	$236,910
Idaho Power Funds	$14,825	$8,252
Total Program Costs—All Sources	$8,778,125	$6,061,467
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.014	$0.013
Total Resource Benefit/Cost Ratio	$0.027	$0.024
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	7.85	
Total Resource Benefit/Cost Ratio	3.29	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2003	

[a] Does not include Green Motor Rewinds

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-efficient projects. Incentives reduce customers' payback periods for projects that might not be completed otherwise. Program offerings include training and education on 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, followed by the finalization of 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 complete. Oftentimes, Idaho Power conducts follow-up or post-inspection validation via third-party engineering firms. Incentive levels for the Custom Efficiency program stayed at 70 percent of the project cost, or 12 cents per kWh first-year savings, whichever is less.

2010 Activities

A total of 223 projects were completed in 2010 by 152 companies, including 19 Oregon projects from 12 different companies. Program energy savings increased in 2010 by 38 percent over the prior year, from 51,836 MWh to 71,525 MWh. Completed projects increased by 74 percent in 2010. The increase in program participation and energy savings was a direct result of increased participation of lighting and fan projects. 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 20 Green Rewind motors in the commercial/industrial sector in 2010, contributing 55,126 kWh in savings.

Key components in facilitating customer implementation of energy efficiency projects are facility energy auditing, customer technical training, and education services. Because the link between energy audits and completion of projects is historically significant, Idaho Power continued expanding the number of contractors available for customer scoping audits from six companies in 2009 to eight companies in 2010. Selection of engineering firms is based on the firm's expertise in all major equipment areas and their ability to provide resources for customers throughout Idaho Power's service area.

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. A total of 10 technical training classes were completed in 2010. Topics included compressed air, chilled water systems, pumping systems, variable frequency drives, and refrigeration. The level of attendance at these classes remains high with a total of 234 customers attending the workshops.

The Custom Efficiency program has achieved a high service area penetration rate. Through 2010, approximately 73 percent of the large power service customers submitted an application for a project. Idaho Power engineers met with another 18 percent of the customers to discuss energy efficiency programs and opportunities within customer facilities. In summary, 91 percent of large power service customers submitted projects to, or met, with Idaho Power.

Table 8 shows the Custom Efficiency program's annual energy savings by end use, number of projects, and kWh saved.

Table 8. Custom Efficiency annual energy savings by measure

Program Summary By Measure	Number of projects	kWh saved
Lighting	159	33,234,770
Fan	28	13,614,289
Compressed Air	5	6,738,503
Pump	3	2,567,460
Refrigeration	14	10,387,189
Other	21	4,982,738
Total	**223**	**71,524,949**[a]

[a] Does not include Green Motor Rewinds

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 projects 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 utilized 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. The verification process requires 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 ensures achievement of projected energy savings. Verifying applicants' information confirms that demand reduction and energy savings are obtained and 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 verification of energy savings, costs, estimates of measure life, and any final recommendations to ensure the persistence of savings.

In 2010, Idaho Power contracted with The Cadmus Group, Inc., to provide a process evaluation of the Custom Efficiency program. This evaluation included a program data review, program logic model, internal customer survey evaluation, industry best practices comparison, conclusions, and recommendations. The final report was received in February 2011 and stated that "overall, the program is operating smoothly from design to implementation," and "in many ways, the Custom Efficiency program exemplifies a quality efficiency program compared to similar efforts across the country." Recommendations for program improvement included the completion of the program manual including pre- and post-inspection protocols and standards and the need to conduct additional market research with program and trade ally participants. Idaho Power is currently analyzing all recommendations. Any program changes made in 2011 will be highlighted in the *Demand-Side Management 2011 Annual Report*. The complete report is provided in *Supplement 2: Evaluation*.

The company also contracted with The Cadmus Group, Inc., to conduct a *Market Characterization Study* for this program. Among other things, this study includes a scenario that applies a comparison of current and forecasted market penetration to the cost-effective potential estimated in the *Demand Side Management Potential Study, August 14, 2009* report by Nexant. The gap analysis shows that the Custom Efficiency program is currently meeting the forecasted achievable potential savings and the costs per MWh are similar to the forecast in the potential study. The complete report is provided in *Supplement 2: Evaluation*.

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 customer's *Success Stories* on the Idaho Power website. At the end of 2010, 14 additional *Success Stories* describing 2010 projects were posted on the company's website. An example of a success story posted in 2010 refers to a project Roaring Springs completed early in the year. Idaho Power provided Roaring Springs a $75,665 incentive for energy efficiency upgrades that reduce Roaring Springs costs and is expected to save about $65,000 in electric bills per year, according to the owner. The estimated total savings of the project was 822,825 kWh per year. The owner said, "I can't thank these guys at Idaho Power enough. They really went above and beyond." Copies of the 2010 *Success Stories* are provided in *Summary 2: Evaluation.*

2011 Strategies

In 2011, Idaho Power plans to continue expanding the Custom Efficiency program through a number of activities. These activities will include direct marketing of the Custom Efficiency program by Idaho Power major customer representatives to inform the customers of the Idaho Power energy efficiency programs available and ways the customer can reduce energy costs. In addition, 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.

Final reports from The Cadmus Group, Inc.'s, 2010 process evaluations were received in February 2011. All viable process recommendations will be considered and prioritized for implementation in 2011. Process changes implemented in 2011 will be highlighted in the *Demand-Side Management 2011 Annual Report*. The company plans on conducting an impact evaluation in 2011.

Both the Custom Efficiency and Easy Upgrades programs offer lighting incentives to commercial and industrial customers. Having lighting programs with different characteristics can cause confusion among field staff, contractors, and customers. In 2011, Idaho Power will continue to make program changes to lighting projects within both Custom Efficiency and Easy Upgrades. The objectives will be to develop a single lighting calculator, standardize terms and conditions, and follow a similar project verification protocol between programs. Better alignment of the incentives between the two programs will lessen program confusion and potentially increase participant satisfaction.

Easy Upgrades

	2010	2009
Participation and Savings		
Participants (projects)	1,535	1,224
Energy Savings (kWh)	35,824,463	35,171,627
Demand Reduction (MW)	7.8	6.1
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$3,862,653	$3,213,388
Oregon Energy Efficiency Rider	$111,757	$108,533
Idaho Power Funds	$0	$3,584
Total Program Costs—All Sources	$3,974,410	$3,325,505
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.013	$0.011
Total Resource Benefit/Cost Ratio	$0.024	$0.032
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	7.93	
Total Resource Benefit/Cost Ratio	2.94	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2006	

Description

The Easy Upgrades program encourages commercial and industrial customers in Idaho and Oregon to implement energy efficiency retrofits by offering incentives up to $100,000 per-site, per-year. Eligible measures cover a variety of energy-saving opportunities in lighting, HVAC, motors, building shell, plug loads, and grocery refrigeration. Although Easy Upgrades is designed to be "easy" for Idaho Power customers, it is one of the company's largest and most complex programs, containing 143 separate measures. A complete listing of the measures offered through the Easy Upgrades program is included in *Supplement 1: Cost-Effectiveness*.

Idaho Power commercial or 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. Potential participants first assess their energy-saving opportunities by talking with their equipment supplier, contractor, or Idaho Power customer representatives. For projects with expected incentive payments of more than $1,000, applicants must submit a preliminary application prior to initiating the project. In that case, the customer or contractor completes the preliminary application form and submits it with relevant worksheet(s) describing the location and planned scope of their project. On Idaho Power's review and acceptance, the preliminary application allows a customer to collect an incentive if the project is completed within 90 days. For smaller projects with expected incentive payments of less than $1,000, customers may elect to skip the preliminary application and just submit their final application for payment. These projects must have been completed no more than six months prior to submitting their application for payment. Under the Easy Upgrades program, incentive payments may be made to the customer's contractor; however, the customer must specifically assign the payment to the contractor in the application process.

2010 Activities

To Idaho Power's trade allies, contractors, and customers who participated in Easy Upgrades, 2010 appeared to be a relatively normal year. From Idaho Power's perspective, 2010 was a year that presented many challenges and opportunities. Challenges were created as the program continued to experience strong growth in the number of projects being submitted. Opportunities were created when Idaho Power expanded the responsibility of day-to-day program operations to multiple internal program specialists. Having multiple program specialists involved benefited the program by streamlining processes, enhancing employee development, leveraging staff experience, and creating more consistent program management across Idaho Power's commercial and industrial energy efficiency programs. To ensure projects met the terms and conditions of the program, more pre-project and post-project inspections were conducted by Idaho Power. In July, a new program specialist was selected to lead Easy Upgrades. Idaho Power hired a contract employee to conduct pre- and post-project inspections. Due to the increase in program participation, employee resources almost doubled from 2009.

As existing program specialists and energy efficiency engineers became involved in day-to-day operations, process improvements such as streamlining application processing became an initial focus. The incentive check letter mailed to customers on completed projects was automated, saving valuable staff time. Additionally, data-entry processes were automated, making them more efficient and improving accuracy.

In 2010, Idaho Power focused on data-gathering and analysis. In preparation for the 2011 program-change rollout, Idaho Power contracted with Evergreen Consulting to advise Idaho Power on lighting options within Easy Upgrades. Evergreen Consulting is a regionally and nationally recognized energy efficiency consulting group that specializes in energy-efficient lighting program implementation. This work included redesigning the lighting tool customers and trade allies use in calculating and submitting incentives for lighting projects.

Idaho Power worked with the company's customer representatives and external trade allies to obtain feedback on the 2010 program changes being considered for implementation in 2011.

In addition to developing a new lighting tool, other changes to the program for 2011 included updating the program terms and conditions, revising incentive levels on some measures, and adding new lighting measure to encourage customers to install technologies that are more efficient.

Easy Upgrades conducted four workshops in December targeting to trade allies and large commercial customers to review the 2011 proposed program changes. These workshops were held across Idaho Power's service area. Workshop topics included new program terms and conditions, application processing, and a demonstration of the new lighting tool. In addition to program-specific material, a 90-minute lighting technology training session was given. Trade allies appreciated receiving the information in advance of the 2011 program rollout. The lighting tool demonstration and the lighting training were two highlights of the workshop. Trade allies provided feedback that they would like to see more lighting training in classes.

Four *Business-Specific Energy Savings Tips* brochures were developed for grocery stores, health care facilities, restaurants, and hotels. These tip sheets provide information and ideas on how to save energy, serving as a resource for specific businesses. Additionally, Idaho Power customer representatives use the brochures when meeting with these businesses.

Presentations were made to various business and professional groups. Idaho Power participates in the local Building Owners and Managers Association International (BOMA) chapter. The Easy Upgrades program was promoted at other events, including sponsoring the 2010 Idaho Better Bricks awards and the Idaho Smart Growth awards.

Cost-Effectiveness

In 2010, Idaho Power did not make changes to the measures offered under the Easy Upgrades program. For most of the measures, deemed savings and cost from the Nexant *Demand Side Management Potential Study (2009)* were used for the cost-effectiveness analysis. For the balance of the measures, engineering estimates were used to calculate expected savings results. In preparation for the program modifications for 2011, a cost-effectiveness review or analysis was conducted on all current measures.

For 2011, several measures that were determined to be not cost-effective were either removed from the program or modified. The Nexant *Demand Side Management Potential Study (2009)* identified six measures that may not be cost effective. These measures were the window shading, flat-panel liquid crystal display (LCD), occupancy sensor controls for office equipment, high-efficiency coin-operated washers without electric water, air-cooled multiplex systems, and evaporative-cooled multiplex systems. After further internal review in consultation with the EEAG, these measures were removed from the program's offerings for 2011. As for 2010, only three out of the six measures were used by the customers and comprise 0.2 percent of the measures receiving incentives. The four lighting measures determined not cost effective in 2009 as well as the other lighting measures were updated for 2011 with the new lighting tool. Additionally, a new custom line item is now included within the lighting tool to accept combinations not captured by the prescriptive approach. This new custom option allows the customer to enter specific information, such as wattages of existing and proposed fixtures, hours of operations, and costs for a proposed a lighting project. The determination of cost-effectiveness of these measures is based on these entries.

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

Customer Satisfaction and Evaluations

As part of the ongoing evaluation process, surveys were sent to 382 program participants in mid-October, and 113 responded to the survey, resulting in a 30 percent response rate. The purpose of the survey was to collect customer feedback on the program and on the products they installed as well as the contractor used for their project. Over 61 percent of the 113 survey respondents said they learned about the program "from a contractor, supplier, or vendor." Another 17 percent of these customers indicated they learned about the program "from an Idaho Power employee."

When asked a series of questions about their experience with Idaho Power and the Easy Upgrades program, 60 percent "strongly agreed" that Idaho Power staff provided accurate and helpful information. Sixty-six percent "strongly agreed" that Idaho Power staff was helpful; 53 percent "strongly agreed" that the Easy Upgrades incentive application forms were easy to follow; and 63 percent "strongly agreed" that their application was processed in a timely manner.

Ninety-one percent of the respondents indicated they are "very satisfied" with the energy efficiency equipment they installed under the Easy Upgrades program.

Only 17 percent of the respondents indicated their project would not have changed at all if they had not participated in the Easy Upgrades program. Of those who said their project would have changed if they

had not participated in the Easy Upgrades program, 40 percent said they would have "kept using existing equipment," 27 percent would have "canceled the project altogether;" 21 percent said they would have had to "postpone the project for more than 1 year;" and 16 percent said they would have "repaired existing equipment." Sixty-six percent of the respondents said they could not have paid the full cost of the project without the Easy Upgrades incentive. When asked a series of questions about what influenced their decision about whether or not to do the project, 76 percent said the Easy Upgrades incentive was "very influential;" and 54 percent said the amount of energy-savings potential was "very influential."

Respondents were asked a series of questions about the contractor they used for the Easy Upgrades project. The majority of respondents ranked their contractor "excellent" on quality of work, courteousness and professionalism, knowledge of equipment and knowledge of the Easy Upgrades program, completing work in a timely manner, and explaining efficiency aspects of new equipment. Fifty-five percent said they used the contractor because they had "used them for other projects;" and 86 percent said they "definitely would" recommend the contractor to a business associate.

Ninety percent of respondents said they were "very likely" to participate in the Easy Upgrades program again and were "very likely" to recommend the Easy Upgrades program to a business associate.

Copies of these surveys and survey results can be found in *Supplement 2: Evaluation*.

Results of the customer satisfaction survey were reviewed by the program specialist as part of the process of identifying changes to the program for 2011. The specialist wanted to know if there were any issues with the program to address in the 2011 program changes; there were none. The specialist presented a few key survey results at Trade Ally Workshops held throughout the Idaho Power service area early in December 2010. These results included the following:

- The important role the trade allies serve for promoting the Easy Upgrades program to their customers
- The significant function the Idaho Power incentive played in helping customers implement their retrofit projects
- The customers' needs for the contractors to provide more information on energy efficiency measures and how to best use their energy efficiency equipment

The Easy Upgrades program specialist will continue to monitor customer satisfaction with the program throughout 2011.

Idaho Power contracted with The Cadmus Group, Inc., to provide a process evaluation of the Easy Upgrades program. This evaluation included a program data review, program logic model, internal-customer survey evaluation, industry best practices comparison, conclusions, and recommendations. The final report was received in February 2011 and indicated that this program had high appeal to Idaho Power customers and has grown rapidly. Recommendations for program improvement included the need to conduct additional market research with program and trade ally participants, update program marketing and outreach materials, and improve program data tracking and QA efforts. Idaho Power is currently analyzing all recommendations. Program changes made in 2011 will be highlighted in the *Demand-Side Management 2011 Annual Report*. The complete report is provided in *Supplement 2: Evaluation*.

The company also contracted with The Cadmus Group, Inc., to conduct a *Market Characterization Study* for this program. Among other things, this study includes a scenario that applies a comparison of current and forecasted market penetration to the cost-effective potential estimated in the *Demand Side Management Potential Study, August 14, 2009* report by Nexant. The gap analysis indicates current savings from the Easy Upgrades program are outpacing the forecasted achievable potential and this program has significant potential for growth. The study also predicts this gap to narrow in 2014 and recommends more aggressive marketing activities may be required in the future. The complete report is provided in *Supplement 2: Evaluation*.

2011 Strategies

Several program changes will be implemented in 2011. Program participants will be required to sign a MOU to be eligible to participate in Easy Upgrades. The MOU addresses the terms and conditions participants are required to follow. More detailed project information will be required on applications. The additional information will assist in verifying the scope of each project.

Measure changes for 2011 will include the following.

Lighting

Several administrative and program requirements for lighting projects will be implemented in 2011. Changes will include a new lighting tool. Submission of the new lighting tool will be required for project applications. Manufacturer cut-sheets on equipment being installed will also be required at the time new projects are submitted. A "custom" option for non-standard lighting applications will be included in the lighting tool. For example, cost-effective outdoor lighting measures will be eligible for program incentives under the new non-standard option. Based on cost-effective analysis, several incentive levels will be modified. Additionally, more pre- and post-installation site verifications will be performed. The program will develop a detailed inspection process for lighting projects.

Building Shell

Premium windows are redefined as those with a Solar Heat Gain Coefficient of 0.30 or less and a U-factor of 0.30 or less. Window-shade film was removed based on cost-effective analysis. Insulated and high-speed automatic door measures were removed from Easy Upgrades and moved to the Custom Efficiency program.

Grocery Refrigeration

The incentives for anti-sweat heat controls, Electronically Commutated Motor (ECM) case fan motors, and LED display case lighting were increased. Air-cooled multiplex and evaporative-cooled multiplex systems were removed based on cost-effective analysis.

Plug Load

Flat panel LCD displays, office equipment occupancy sensors, and coin-operated washing machines (without electric hot water) were removed based on cost-effective analysis.

Final reports from The Cadmus Group, Inc.'s, 2010 process evaluations were received in February, 2011. All viable process recommendations will be considered and prioritized for implementation in 2011. Process changes implemented in 2011 will be highlighted in the *Demand-Side Management 2011 Annual Report*.

Plans include the provision of educational topics at trade ally workshops. Topics will be focus on maximizing energy-savings opportunities and increasing customer satisfaction.

Effective July 14, 2012, there will be new Standards for General Service Fluorescent Lamps. Idaho Power is aware of these new requirements and will work with regional market players to develop strategies in deciding what changes to make for the lighting measures and respective incentives for the 2012 Easy Upgrades program.

FlexPeak Management

	2010	2009
Participation and Savings		
Participants (sites)	60	33
Energy Savings (kWh)	n/a	n/a
Demand Reduction (MW)	47.5	19.3
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$1,807,527	$528,681
Oregon Energy Efficiency Rider	$95,153	$0
Idaho Power Funds	$0	$0
Total Program Costs—All Sources	$1,902,680	$528,681
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	n/a	n/a
Total Resource Benefit/Cost Ratio	n/a	n/a
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	1.14	
Total Resource Benefit/Cost Ratio	1.14	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2009	

Description

FlexPeak Management is a voluntary demand response program targeting Idaho Power's industrial and large commercial customers that are capable of reducing their electrical energy loads for short periods during summer peak days. The program became available to the company's Idaho customers in May 2009 and to the company's Oregon customers in May 2010. 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 the hours of 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.

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.

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 without negative 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, EnerNOC commits a demand reduction level in MW to Idaho Power that EnerNOC is obligated to meet in 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.

2010 Activities

On February 26, 2010, as part of Case No. IPC-E-09-02, the company filed with the IPUC a *FlexPeak Management 2009 Preliminary Report* dated February 24, 2010, in accordance with the request in IPUC Order No. 30805 for a preliminary evaluation of the program prior to making a request for prudency of program expenditures. A copy of this report is included in *Supplement 2: Evaluation*.

Also on February 26, 2010, as part of the same case IPC-E-09-02, the company filed a petition requesting the IPUC approve an amendment to the agreement between Idaho Power and EnerNOC. The contract changes accomplished clarification of language regarding accrual of energy payments, adjustment of language regarding baseline calculations, correction of an error in EnerNOC penalty calculations, and addition of a non-solicitation clause.

On June 2, 2010, under Order No. 31098, the IPUC granted the company's Petition for Approval of the Amendment to the Agreement in June 2010.

In March 2010, the company filed an application with the OPUC to approve the FlexPeak Management program in its Oregon service area to be made available to Idaho Power Oregon customers. The OPUC opened docket UM 1473 to evaluate the application, which was approved on June 2, 2010, in Order No. 10-206.

The first week of the program, EnerNOC committed to provide a reduction of 29.96 MW. This weekly commitment, or "nomination," was comprised of 49 facility sites, of which 30 participated in the program in 2009 and 19 added in 2010. The reduction at the end of the season was 30.80 MW, comprised of 64 facility sites. The commitment peaked in July at 34.2 MW.

Idaho Power called four demand response events for the FlexPeak Management program. In each case, EnerNOC successfully exceeded the committed MW reduction. One event occurred in June, two in July, and one in August. The highest hourly reduction achieved was in July, at 47.5 MW, which exceeded the target reduction for the summer of 2010 of 30 MW.

Cost-Effectiveness

Although the B/C analysis for the FlexPeak Management program is based on a 10-year model, the company also tracks cost-effectiveness on an annual basis. Both calculations use financial assumptions and DSM alternative costs from the 2009 IRP. As published in the 2009 IRP, for peaking alternatives, such as demand response programs, a 170-MW SCCT is used as the alternative resource in Idaho Power's cost-effectiveness analysis. This analysis is updated annually with actual benefits and costs. For the FlexPeak Management program, the benefits are based on measured demand reduction at the participants' meter. The costs include the fees paid to EnerNOC and Idaho Power administration for the program. The 2010 cost-effective analysis demonstrated the FlexPeak program has a TRC ratio of 1.14

from a long-term perspective and a TRC ratio of 1.33 for 2010. *Supplement 1: Cost-Effectiveness* contains details on the cost-effectiveness assumptions and data.

Customer Satisfaction and Evaluations

In early 2010, EnerNOC sent an Annual Customer Survey to 27 of the 2009 participants via e-mail. Nine participants responded for a 33 percent response rate. On a scale of 1 to 10, 10 being "very satisfied," the average level of satisfaction with EnerNOC's communication with the participants was 7.1, the average level of satisfaction with how EnerNOC managed the demand response events was 8.3, the average level of satisfaction with the installation and maintenance of equipment installed at participants' facilities was 8.1, and the average level of overall satisfaction with EnerNOC was 7.7. On a scale of 1 to 10, 10 being "extremely likely," when asked how likely they would be to recommend EnerNOC to a colleague or business partner, the average result was 8.0. Of the nine responses, three reported no difference in their opinion of Idaho Power based on their participation in the program, five reported an improved opinion of Idaho Power, and one gave no response.

EnerNOC sent a post-event survey via e-mail after the first event in June 2010 to 125 participants at 53 sites representing all the sites enrolled in the event. Ten participants responded for an 8 percent response rate. Results were positive. When asked how prepared they felt for the demand response event, on a scale of 1 to 10, 10 being "fully prepared," the average response was 9.1. 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 9.1. 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 9.9. 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 9.2. When asked about their overall satisfaction with EnerNOC, on a scale of 1 to 10, 10 being "very satisfied," the average response was 8.9.

Copies of these surveys and survey results can be found in *Supplement 2: Evaluation.*

2011 Strategies

EnerNOC plans to conduct a post-season customer satisfaction survey for the 2010 season first quarter 2011. 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.

Holiday Lighting Program

	2010	2009
Participation and Savings		
Participants (projects)	25	32
Energy Savings (kWh)	248,865	142,109
Demand Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$45,816	$33,673
Oregon Energy Efficiency Rider	$316	$257
Idaho Power Funds	$0	$0
Total Program Costs—All Sources	$46,132	$33,930
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.024	$0.031
Total Resource Benefit/Cost Ratio	$0.034	$0.066
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	3.63	
Total Resource Benefit/Cost Ratio	1.87	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2008	

Description

The Holiday Lighting program offers incentives to commercial customers to replace incandescent lighting with more efficient LED holiday lighting. Customers turn in their strings of holiday lights for recycling at various Pacific Recycling locations and receive a receipt verifying the type and count of lights. The customer initiates the incentive process by submitting an application to Idaho Power, along with their recycling receipt and new bulb purchase receipt.

2010 Activities

A 2010 analysis of the program identified that an increasing ratio of mini-incandescent lights to C7 and C9 lights being turned in for recycling was having a significant impact on program cost-effectiveness. Additionally, several market observations were taken into account. Feedback from participants indicated a preference for LEDs in the future because of the durability and reduced hazard provided by LED technology. The increased availability of LED lighting in wholesale and retail stores, and use of the technology in the marketplace led to the acceptance of the LED technology. These factors combined to indicate that LED usage for holiday displays was becoming the standard choice in the market. Based on those factors, two program decisions were made: 1) beginning in mid-2010, incentives for mini-incandescent lights were not offered; and 2) customers were notified that 2010 would be the last year Idaho Power would offer the program. A bill stuffer went out in October 2010 notifying commercial customers of these program changes.

In 2010, there were 25 participants in the Holiday Lighting program with a total savings of 248,865 kWh/year. This is approximately half the energy savings achieved in 2009.

The largest program participant was the Idaho Botanical Garden, with an estimated annual savings of 46,899 kWh. Their Winter Garden Aglow holiday display recycled over 23,000 incandescent lights, and replaced them with approximately 10,000 LED lights. It is estimated that over 36,500 visitors attended this event.

Although the incentive was available only to commercial customers, the program was useful as a means of introducing Idaho Power customers to the advantages of LED technology and helped make LED lighting the preferred choice when it comes to replacing existing holiday lighting. LED lighting has now become readily available at most stores supplying holiday lighting to both commercial and residential markets.

As LED technology developed, LED replacement bulbs became available. When the Holiday Lighting program originally launched, LED light strings did not have replaceable bulbs. LED replacement bulbs for use in existing C7 and C9 strings were also not widely available at the time of program startup. In the past two years, increasing number of customers wanted to turn in bulbs yet keep their strings of sockets. Idaho Power staff was involved in counting and picking up these bulbs for disposal. This logistical step would have become an increasing concern had the program continued.

Cost-Effectiveness

In the original program design, savings estimates were computed for both commercial grade LED C7/C9 and mini-LED bulbs. Based on a review of manufacturing specifications of the LED C7/C9 bulbs, it was calculated they use 5 W less per bulb over a comparable incandescent C7/C9 bulb. LED mini bulbs were calculated to have 0.41 W of reduction per bulb. With an assumed 12 hours of use daily, seasonal savings per bulb were estimated to be 2.9 kWh for C7/C9 bulbs and 0.24 kWh for mini LEDs.

As part of the 2009 cost-effective analysis conducted in 2010, mini LEDs were found not cost-effective and were discontinued from the program midway through 2010 before the holiday season. The cost of mini LEDs decreased, and the availability of commercial-grade, non-LED mini bulbs declined, indicating a transformed market. This commercial trend or market transformation of mini-LED bulbs was mirrored by the emergence of residential programs through large retailers that provided discounts to customers purchasing LED bulbs and recycling incandescent similar to Holiday Lighting. The Holiday Lighting program was discontinued after the 2010 holiday season. Cost-effective model assumptions and analysis are included in *Supplement 1: Cost-Effectiveness*.

Customer Satisfaction and Evaluations

Overall, customers conveyed their appreciation for the program. Some customers were disappointed that incentives on the mini-incandescent were no longer offered. Customers were informed that a major goal of the program was to achieve market transformation in holiday lighting and with so many displays now being supported by LEDs, it was clear that LEDs have become a viable and acceptable option.

2011 Strategies

The Holiday Lighting incentive will no longer be offered. However, information regarding the use of LED technology for holiday displays will be provided on customers' request.

Oregon Commercial Audits

	2010	2009
Participation and Savings		
Participants (audits)	22	41
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	$5,049	$20,732
Idaho Power Funds	$0	$0
Total Program Costs—All Sources	$5,049	$20,732
Program Levelized Costs		
Utility Levelized Cost ($/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.

2010 Activities

Idaho Power sent out its annual mailing to approximately 3,400 Oregon commercial customers in October 2010. Customers were notified of the availability of no-cost energy audits and provided the Idaho Power publication *Saving Energy Dollars*. Twenty-two customers requested an audit, with 15 audits completed by Idaho Power and seven completed by a third-party contractor.

EnerTech Services, the third-party energy auditing contractor, delivered Idaho Power energy efficiency program information to customers during the audits they conducted. During the delivery of information, EnerTech Services discussed maintenance and efficiency opportunities that may be available to meet customer needs.

Cost-Effectiveness

As previously stated, the Oregon Commercial Audits program is a statutory program offered under Oregon Rate Schedule No. 82. Since the required parameters of the Commercial Energy Audit Program

are specified in Schedule No. 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

An excellent example of the value of an audit is the identification of actual savings opportunities and incentives in the customer's facility. This was demonstrated during a restaurant audit completed in 2010. This example describes customer engagement in energy efficiency opportunities.

During the walk-through evaluation, the customer representative and the customer discussed potential lighting conversions, refrigeration positioning and temperature control, and window-glazing options. If the customer followed through on the lighting suggestions by upgrading from T-12 lamps with magnetic ballasts to T-8 lamps with electronic ballasts, the conversion would save approximately 30 percent of the energy used for lighting.

After the audit, the customer verbally indicated to the customer representative satisfaction with the discussion regarding potential energy efficiency opportunities at the site. A follow-up call revealed that the customer was interested in using the Idaho Power energy efficiency programs and conducting a lighting retrofit. Program requirements and contact information was provided.

2011 Strategies

In 2011, Idaho Power's audit contractor will continue to introduce participants to energy efficiency through lighting and HVAC system maintenance by suggesting customers seek alternatives that are more efficient as they support and replace their existing equipment. EnerTech Services will continue to help customers identify projects that save energy and help meet the customers' other needs, such as improving space comfort. The audit process will continue to be used as a way to introduce customers to available Idaho Power incentive programs.

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 irrigation of lawns, parks, cemeteries, golf courses, or domestic water supply.

In December 2010, the active and inactive irrigation service locations totaled 18,547 system-wide. This is a reduction of 1.4 percent compared to 2009, due to removal of some irrigation meters that were not used for multiple years. Irrigation customers accounted for 1,706,632 MWh of energy usage in 2010, which was up from 2009 by over 3 percent. This sector represented about 13 percent of Idaho Power's total electricity usage and about 23 percent of peak demand. Energy usage for this sector has not grown significantly in many years; however, there is substantial yearly variation in demand due primarily to the impact of weather on irrigation needs.

Idaho Power currently offers two programs to the irrigation sector: 1) Irrigation Peak Rewards, a demand response program designed to decrease peak demand; and 2) Irrigation Efficiency Rewards, an energy efficiency program designed to encourage replacement or improvement of inefficient systems and components. Idaho Power also pays incentives to customers participating in the Green Rewind, which is a measure that ensures the motor's original efficiency is maintained if it is rewound at an approved service center. Table 9 summarizes the overall expenses and program performance for both the energy efficiency and demand response programs provided to irrigation customers.

The Irrigation Peak Rewards program was able to reduce peak summer demands by almost 250 MW during the program's peak performance event during the summer of 2010, an increase of 90 MW over last summer's program performance. More than 500 additional service point locations were enrolled for the 2010 season.

Irrigation Efficiency Rewards program, which has been in operation since 2003, saw its annual savings drop by 2,189,189 kWh to 10,968,430 kWh of annual savings as compared to 2009 reported savings. The reduction in savings in 2010 was primarily the result of fewer menu projects being submitted in 2010. Generally, there seem to be fewer irrigation systems that need to replace or repair the 11 menu items offered as a result of the program being available or the past four years. In addition, a few applications were not approved in 2010 due to the new rule adopted in 2010 requiring measures to have been installed within a year.

Programs

Table 9. 2010 Irrigation program summary

Program	Participants	Total Costs		Savings	
		Utility	Resource	Annual Energy (kWh)	Peak Demand (MW)
Demand Response					
Irrigation Peak Rewards	2,038 service points	$13,330,826	$13,330,826	n/a	249.7
Total		**$13,330,826**	**$13,330,826**	**n/a**	**249.7**
Energy Efficiency					
Irrigation Efficiency Rewards	753 projects	$2,200,814	$6,968,598	10,968,430[a]	3.3
Total		**$2,200,814**	**$6,968,598**	**10,968,430**	**3.3**

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

Each year, the company conducts a customer relationship survey. Overall, 50 percent of Idaho Power irrigation customer surveyed in 2010 for the Burke Customer Relationship survey indicated Idaho Power was meeting or exceeding their needs in offering energy efficiency programs. Fifty-eight percent of survey respondents indicated Idaho Power is meeting or exceeding their needs with information on how to save energy or reduce their bill. Fifty-six percent of respondents indicated Idaho Power is meeting or exceeding their needs with encouraging energy efficiency with its customers. Overall, 36 percent of the irrigation survey respondents indicated they have participated in at least one Idaho Power energy efficiency program. Of irrigation survey respondents who have participated in at least one Idaho Power energy efficiency program, 92 percent are "very" or "somewhat" satisfied with the program.

Irrigation Efficiency Rewards

	2010	2009
Participation and Savings		
Participants (projects)	753[a]	887
Energy Savings (kWh)	10,936,463	13,157,619
Demand Reduction (MW)	3.3	3.4
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$2,059,676	$2,112,391
Oregon Energy Efficiency Rider	$110,034	$152,134
Idaho Power Funds	$31,104	$29,371
Total Program Costs—All Sources	$2,200,814	$2,293,896
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	$0.030	$0.026
Total Resource Benefit/Cost Ratio	$0.096	$0.077
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	5.22	
Total Resource Benefit/Cost Ratio	1.61	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2003	

[a] Does not include Green Motor Rewinds

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 the customer recover a portion of the costs of installation of a new, more efficient irrigation system and energy efficient improvements to an existing irrigation system.

Two separate 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 first year kWh saved above standard installation methods, not to exceed 10 percent of total project cost. For existing system upgrades, the incentive is 25 cents per first year 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 pumping hp requirement or hours of operation.

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, is 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
- Rebuilt or new 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. Idaho Power reviews and analyzes each proposal for a system or component modification, determining and verifying the energy savings.

The Green Rewind program 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 $2.00 per hp for each NEMA Standard hp-rated motor between 15 and 5,000 hp that receives a verified Green Rewind. The RTF originally approved the Green Motors Practices rewinding as an energy efficiency measure and approved a table of deemed savings in July 2007 for industrial applications. In July 2009, the RTF reviewed and approved savings for motor rewinds for industrial and agricultural applications. The new savings were posted in 2010.

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 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 Riders and 70 percent from base rates.

2010 Activities

There were no major changes made to the basic structure of the program during 2010. However, a modification regarding the time frame in which irrigation components are eligible for an incentive was made for all menu payments effective January 4, 2010, with approval from the OPUC. Going forward from January 4, 2010, the new eligibility states that customer invoices must be provided to the company no later than one year after the purchase date of the equipment.

Idaho Power agricultural representatives, program specialist, and 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 Irrigation Association.

Idaho Power continued to market the program by varying the location of workshops and offering new presentations to irrigation customers. In 2010, Idaho Power provided six workshops promoting the Irrigation Efficiency Reward program throughout the service area. Approximately 180 customers attended workshops in Blackfoot, Aberdeen, Burley, Twin Falls, Grand View, and Nampa. Idaho Power also accepted invitations to present the program at four workshops sponsored by agricultural groups in Fairfield, Shoshone, Nampa, and Jackpot, Nevada. Exhibitor booths were displayed at regional agricultural trade shows, including the Eastern and Western Idaho Agriculture Expos, the Agri Action Ag show, the Idaho Ag Summit, and the Idaho Irrigation Equipment Association show and conference.

Of the 753 irrigation efficiency projects completed in 2010, the 610 associated with the Menu Incentive Option provided 5,219 MWh of energy savings and 1.02 MW of demand reduction. The Custom Incentive Option had 143 projects, of which 68 were new irrigation systems and 75 were on existing systems. This option provided 5,561 MWh of energy savings and 2.23 MW of demand reduction for the year. Also during 2010, irrigation customers contributed 187,965 kWh of energy savings from 36 motors participating in the Green Motor Rewind measure.

In 2010, Idaho Power reviewed the cost-effectiveness of continuing the Green Motor Rewind initiative for both industrial and agricultural motors. Based on the new RTF-approved energy savings, it was determined that some of the smaller motors did not pass the PCT. For 2011, rewinds on motors less than 25 hp have been removed from the initiative.

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 customers' 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.

In 2010, RTF provisionally deemed updated savings and cost assumptions for several irrigation hardware measures. Idaho Power reviewed the savings and costs for measures identified for the western Idaho region. Several RTF measures were either averaged or combined to align with Idaho Power's program offering. Some measures annual gross energy savings increased and improved the measure's cost-effectiveness. For instance, the hub replacement measure was identified as not cost-effective in the 2009 *Supplement 1: Cost-Effectiveness*. RTF increased savings from 40 kWh/year, to 69 kWh/year which improved the measure's TRC from 0.71 to 1.14.

Nearly all the measures remained cost effective, despite the changes made to the measure savings and cost assumption. However, the rebuilt and new wheel line levelers appeared to not be cost effective using the new savings assumptions. The RTF reduced savings from 20 kWh per year to 2 kWh per year. This significant decrease in savings contributed to the TRC dropping from 1.34 in 2009 to 0.27 in 2010. One factor contributing to the measure's non-cost-effectiveness is the participant cost. RTF assumes the cost to be $3.25 per unit. However, according to invoices received by Idaho Power through the program, leveler rebuilding kits cost less than $1.00 while new levelers cost about $12.00. A majority of the levelers that are eligible for incentives through the program are for the rebuilt levelers; however, the cost of the new levelers is driving up the average participant cost. Idaho Power is currently reviewing this measure to determine if the measure is, in fact, cost-effective, or if it will be removed from the menu offerings. A decision will be made by the summer of 2011 when Idaho Power reviews other changes to the program.

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

Customer Satisfaction and Evaluations

On January 5, 2010 an RTF subcommittee, composed of the Energy Trust of Oregon (ETO), the RTF, Rocky Mountain Power, and Idaho Power, presented a methodology for calculating the deemed irrigation hardware measures. The methodology was approved by the RTF. The RTF included a suggestion that utilities should make appropriate adjustments to the inputs for calculating energy savings for unique service area characteristics. The RTF's decision stated that the deemed irrigation measures should be reviewed in 13 months. At the RTF meeting on January 5, 2010, Rocky Mountain Power announced they were conducting an evaluation of savings from its irrigation hardware program and that information will be available from the Idaho market. Idaho Power is waiting for the results of this evaluation before designing additional evaluation. Idaho Power is considering partnering with an Idaho university to further evaluate and test irrigation equipment that will aid in determining individual measure savings.

In 2010, Idaho Power contracted with The Cadmus Group, Inc., to provide a process evaluation of the Irrigation Efficiency Rewards program. This evaluation included a program data review, program logic model, internal customer survey evaluation, industry best practices comparison, conclusions, and recommendations. The final report was received in February 2011 and noted that this is "a robust, ambitious, and leading-edge irrigation program," and that the program has "strong relationships with customers and trade allies, credibility, and high demand." Recommendations for program improvement included the need to conduct additional surveys to provide on-going data regarding program satisfaction, operation, and market trends. It was also recommended that Idaho Power consider expanding outreach and assistance efforts to capitalize on the technical strength of a "well-trained" Idaho Power program staff. Idaho Power is currently analyzing all recommendations. Any program changes made in 2011 will be highlighted in the *Demand-Side Management 2011 Annual Report*. The complete report is provided in *Supplement 2: Evaluation*.

2011 Strategies

Marketing plans for 2011 include conducting three to five customer-based irrigation workshops and three to five training sessions for irrigation dealers and manufacturers. These workshops and training sessions enable discussions between Idaho Power representatives, the company's customers, and irrigation dealers, while continually educating them about 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 also reviewing the program with input from customers regarding other energy-saving measures that can be offered in the Menu Incentive Option. It is also planned to further review information provided by the RTF and other research to make improvements to the program.

Final reports from The Cadmus Group's, Inc., 2010 process evaluations were received in February 2011. All viable process recommendations will be considered and prioritized for implementation in 2011. Process changes implemented in 2011 will be highlighted in the *Demand-Side Management 2011 Annual Report*.

Irrigation Peak Rewards

	2010	2009
Participation and Savings		
Participants (service points)	2,038	1,512
Energy Savings (kWh)	n/a	n/a
Demand Reduction (MW)	249.7	160
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	$13,096,946	$9,131,929
Oregon Energy Efficiency Rider	$184,075	$451,673
Idaho Power Funds	$49,805	$71,681
Total Program Costs—All Sources	$13,330,826	$9,655,283
Program Levelized Costs		
Utility Levelized Cost ($/kWh)	n/a	n/a
Total Resource Benefit/Cost Ratio	n/a	n/a
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	1.43	
Total Resource Benefit/Cost Ratio	1.37	
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 produce a decrease in the company's system summer peak by turning off specified irrigation pumps with the use of one or more load control devices during the program season June 15 through August 15.

Idaho Power has operated its Irrigation Peak Rewards program since starting with a pilot program in 2004. Since that time, Idaho Power has made changes to the program many times with the largest change being the dispatch option that was added before the 2009 irrigation season.

In 2010, the program was active from June 15 to August 15. 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 participants' pumps off, 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 summer peak hours.

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 2010, dispatchable load control events could happen between 1:00 p.m. and 8:00 p.m. on weekdays and Saturday. 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 30 hp.

A customer's incentive appeared as a bill credit that sums the demand credit and energy credit applied to a customer's monthly bills. 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, Automatic Dispatch, or Manual Dispatch Options are calculated using Idaho Power meter billing data. In addition, manual option customers' incentives are calculated using interval metering data. The demand credit is calculated by multiplying the monthly billing kW by the demand-related incentive amount for the interruption option selected by the customer. The energy credit is calculated by multiplying the monthly billing kWh usage by the energy related incentive amount for the interruption option selected by the customer. 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 2010. Incentives offered are listed in Table 10.

Table 10. Option incentives

Option	Demand Credit ($ per billing kW)		Energy Credit ($ per billing kWh)
Timer Option Incentives			
One day	$3.15		
Two days	$4.65	plus	$0.002
Three days	$4.65	plus	$0.007
Automatic & Manual Dispatch Options Incentives	$4.65	plus	$0.031

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 $0.005 per kWh based in the current month's billing kWh, which may be pro-rated to correspond with the dates of program operation and are completed through manual bill adjustments.

2010 Activities

In 2010 most of the challenges surrounding the dispatch devices and communications that occurred in the prior year were resolved, working with Idaho Power's third-party contractor. This resulted in the Irrigation Peak Rewards dispatch load control system working much better. In 2010, the program achieved a maximum peak load reduction of approximately 249.7 MW. This represents a 38 percent increase from 2009. Participation has been very good with this program. Of all eligible irrigation service locations, approximately 11 percent are participating in the program. In 2010, there were 2,038 metered service points enrolled in the program. Of the 2,038 enrolled service points, approximately 14 percent were enrolled in the Electric Timer Option and 86 percent were enrolled in the Automatic and Manual Dispatch Options.

Changes in 2010 included moving the program season from June 1–July 31, to June 15–August 15. Additionally, the days of the week the program can be activated was extended to include Saturdays.

These changes were made to help align the program availability to better match Idaho Power's system peaks.

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 requests by customers, 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 11 shows the MW reduction achieved daily on a week-by-week basis.

Table 11. Total program daily MW reduction without distribution losses using realization rates

	Monday	Tuesday	Wednesday	Thursday	Friday
June 15–18	0.7	0.8	0.9	0.8	0.7
June 21–25	0.7	0.8	0.9	0.8	0.7
June 28–July 2	7.0	192.4[a]	8.9	7.5	7.3
July 5–9	7.0	8.5	8.9	7.5	221.0
July 12–16	7.0	8.5	8.9	7.5	7.3
July 19–23	6.2	7.5	7.8	6.6	6.4
July 26–30	6.2	7.5	7.8	6.6	6.4
August 2–6	3.5	4.2	4.4	143.2	3.6
August 9–13	3.5	4.2	4.4	3.8	3.6

[a] Shaded cells are days when dispatch events occurred.

Idaho Power continued to market the program by varying the location of workshops and offering new presentations to irrigation customers. In 2010, Idaho Power provided six workshops promoting the Irrigation Peak Rewards program throughout the service area. Approximately 180 customers attended workshops in Blackfoot, Aberdeen, Burley, Twin Falls, Grand View, and Nampa. Idaho Power also accepted invitations to present the program at four workshops sponsored by agricultural groups in Fairfield, Shoshone, Nampa, and Jackpot, Nevada. Exhibitor booths were also displayed at regional agricultural trade shows, including the Eastern and Western Idaho Agriculture Expos, the Agri Action Ag show, the Idaho Ag Summit, and the Idaho Irrigation Equipment Association show and conference.

In February 2010, a customer mailing was sent to all eligible Idaho Power irrigation customers with at least one service point over 30 hp. The mailing included a program explanation, a program application, the program's incentive structure, a listing of the customer's eligible service points, and a potential incentive estimate for each program option based on the customer's 2009 usage. A second mailing of the program brochure was sent to all eligible customers with pumps under 30 hp. These customers with less than 30 hp are less likely to participate because of the installation fees resulting in multi-year payback from the incentive. If these customers had a desire to participate, all additional information including application and contract agreement was mailed to them at their request. Additionally, numerous one-on-one conversation with Idaho Power agriculture representatives familiarized customers with the new technology and program details.

Based on the results of the 2009 Irrigation Peak Rewards customer survey, process improvement changes implemented in 2010 included redesigning the program application and rewriting the program brochure to clarify the program information. The 2010 application worksheet was expanded to contain actual incentives received for participating service points with the corresponding previous year's

enrollment option. Customers who participated in 2009 were automatically re-enrolled at their option for the 2010 season.

In addition, Manual Dispatch Option customers received their incentives in the form of a check in 2010. This payment process change limited errors and customer confusion in 2010.

Cost-Effectiveness

Although the B/C analysis for the Irrigation Peak Rewards program is based on a 20-year model, the company also tracks cost-effectiveness on an annual basis. Both calculations use financial and DSM alternative costs assumptions from the IRP. As published in the 2009 IRP, for peaking alternatives, such as demand response programs, a 170 MW SCCT is used as the alternative resource for avoided cost. Idaho Power's cost-effectiveness model representing the program over a 20-year period is updated annually with actual benefits and costs. The benefits are based on peak reduction and shifted energy use. In 2010, the company included an estimate of customer costs in the cost-effective analysis. This change in inputs made the UC and TRC ratios differ. Updating the cost-effectiveness model in 2010 resulted in a UC B/C ratio of 1.43 from the 20-year perspective and 1.14 for 2010. The UC B/C ratio is 1.37 from the 20-year perspective and 1.12 for 2010. For details on the cost-effectiveness assumptions, see *Supplement 1: Cost-Effectiveness.*

Customer Satisfaction and Evaluations

In 2010, Idaho Power conducted a review of the Irrigation Peak Rewards in an effort to ensure the program's design was aligned with the resource needs identified by the IRP. Analysts and engineers from Idaho Power's Customer Relations & Energy Efficiency, Power Supply Planning, and Load Forecasting departments conducted this review. Based on this review, Idaho Power determined there is an optimum amount of demand response that can be effectively used on Idaho Power's system and there is a more economical way of paying for the program.

2011 Strategies

Substantial program changes have been proposed by Idaho Power and were filed with the IPUC on December 10, 2010, under Case No. IPUC IPC-E-10-46 and the OPUC on January 7, 2011, under Advice No. 11-01. These program modifications are a result of Idaho Power's internal review and input from the Idaho Irrigation Pumpers Associations, Integrated Resource Plan Advisory Council (IRPAC), and the EEAG.

Seven program changes are proposed for 2011 implementation:

- Change the incentive structure to a fixed and variable payment that pays customers a portion of their incentive for participating and a portion of their incentive based on how much the company uses the program.
- Include one program event in the fixed portion of the payment.
- Allow the company to pay the variable portion of the incentive through a check at the end of the season.
- Require participants in the Manual Dispatch Option (>1000 hp) to nominate the amount of kW they are enrolling in the program.

- Change the baseline calculation for the Manual Dispatch Option from maximum demand in 24 hours prior to the average demand between 10:00 p.m. and 11:00 a.m. prior to an event.
- Modify the opt-out penalty for the program to $1 per kW per opt-out.
- Add the 8:00 p.m. to 9:00 p.m. hour as an option that customers can sign up for that pays a higher variable incentive.

Marketing plans for 2011 will be to maintain customer participation through what will likely be a transition year from the past incentive structure to the proposed structure if state regulators approve Idaho Power's proposed changes. Idaho Power will continue to educate customers on the program, through workshops and agriculture shows, though may have to limit participation levels to near current levels, based on the overall need for demand response as a resource to meet future loads.

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 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. 2010 was the first year of NEEA's new, five-year plan. Thus, it was a year of realignment and expansion.

NEEA performs several Market Progress Evaluation Reports (MPER) 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 2010, Idaho Power energy efficiency staff attended advisory meetings, served on sub-committees, attended the first-ever conference in Seattle, Washington, and participated in NEEA sponsored studies and research.

NEEA Activities

Commercial and Industrial NEEA Activities in Idaho

NEEA continued to provide support for commercial energy efficient activities in Idaho in 2010. This included partial funding of the IDL in Boise and local BetterBricks® trainings and workshops. Idaho Power's commercial sector programs, Building Efficiency and Easy Upgrades, are designed to leverage NEEA, BetterBricks, and the IDL in Boise activities.

In the industrial sector, NEEA expanded the Continuous Energy Improvement (CEI) efforts to the 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 and 2) the pulp and paper industries. 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.

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. Ten technical training classes were completed in 2010. Topics included compressed air, chilled water systems, pumping systems, variable frequency drives, and refrigeration. The level of attendance at these classes remains high with 234 customers attending the workshops.

A program specialist for the Custom Efficiency program attended two NEAA-sponsored trainings for The Northwest Energy Management Demonstration Pilot Project. The specialist served as a utility support, while gathering information regarding the pending energy-management standard.

The NEEA is partnering with the US DOE to conduct the Northwest Energy Management Demonstration project (NW EM Demo), an energy management pilot for industrial companies. One of Idaho Power's large customers is one of the four companies participating in the pilot. The goal of the project is for participants in the project to help shape the new US energy-management system standard through their experiences and may play a role refining the pending global energy management standard for participating industrial companies. Key findings from the NW EM Demo may help inform the new ISO 50001 International Energy Management Standard for industry, which may impact how companies worldwide manage energy.

Residential NEEA Activities in Idaho

NEEA's Residential Advisory Committee is comprised of representatives from various utilities, the BPA, NEEA staff, and occasional representatives from program partner firms and consultants. The committee meets quarterly to discuss upcoming projects, potential programs, and initiatives.

The residential programs leader usually attends this meeting or sends a residential team member when topics warrant staff participation. These meetings are a useful mechanism for networking with other utility peers, getting updates on regional activities and similar utility program efforts, and providing feedback to NEEA to use in their planning efforts.

NEEA continues to provide support for the ENERGY STAR® Homes Northwest program offered by Idaho Power. NEEA offers technical assistance, funding for certifications, and builder and market support.

In 2009, NEEA launched a Consumer Electronics Initiative. Idaho Power contributed $160,000 to this multi-year effort, which included manufacturer support and consumer marketing for ENERGY STAR televisions that are 30 percent more efficient than baseline ENERGY STAR models. Computer monitors and desktop computers were included in the program in 2010. In 2010 and beyond, the funding for the Initiative is provided by NEEA's multiple Northwest utilities partners' general funding. Eligible models and point-of-purchase marketing collateral were placed in Idaho Power's service area. NEEA representatives throughout 2010 conducted in-store training of sales staff. Energy savings are being tracked by NEEA, and 2010 data will be available the mid-year 2011.

In 2010, NEEA conducted a series of focus groups around the Northwest, including Boise, to help develop the most effective marketing message. With the results, a new marketing campaign , Energy Forward was developed by NEEA to highlight that the products with the designated Energy Forward are the most advanced energy-saving products available. New point-of-purchase marketing materials were created and placed on qualifying units by NEEA representatives throughout the Northwest. A new website was created to describe the campaign: http://www.energyefficientelectronics.org.

Idaho Power also participated in a NEEA-sponsored DHP study in 2009. The first MPER on the DHP Pilot became available in 2010. Detailed information about this project is provided in the DHP Pilot description in this *Demand-Side Management 2010 Annual Report*.

In December 2010, Idaho Power program specialists, analysts, and leadership attended the Efficiency Connections Northwest conference in Seattle, Washington. This conference was created by the region's utilities and NEEA with the goal to advance energy efficiency awareness and its integration in the Northwest. Topics at the conference included methods to promote energy efficiency, increasing collaboration between utilities, new and emerging technologies, market transformation, and energy codes.

During 2010, the Idaho Power DHP Pilot program specialist participated in the monthly Web-based seminar conferences held by NEEA. The goal of the Web-based seminar was to update the Northwest utilities participating in the DHP incentive program. Topics included year-to-date updates on the number of incentives paid, NEEA marketing strategies for the program, QA evaluations, contractor performance, energy evaluation plans, and general feedback from the utilities.

Other NEEA Activities in Idaho

Each year, NEEA underwrites the Idaho Energy Conference through a contract with the Association of Idaho Cities. In addition, in 2010 NEEA provided $25,000 in support to the IDL in Boise, which provides energy consulting services to commercial customers throughout Idaho Power's service area.

The Residential Energy Efficiency Education Initiative specialist represented Idaho Power on the NEEA Conduit Online Community Steering Team in 2010. Conduit (www.conduitnw.org) will be an online resource to facilitate information sharing, coordination, and collaboration among energy efficiency professionals in the Northwest. Pilot testing is targeted for March 2011. Idaho Power is involved in this testing. Conduit is slated for a general launch in May 2011.

Idaho Power's customer research and analyst leader is an active 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's energy efficiency analyst 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 2010, Idaho Power began the first year of the 2010–2014 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 2010, 100 percent was funded through the Idaho and Oregon Riders.

In 2010, Idaho Power paid $2,391,217 to NEEA. The Idaho jurisdictional share of the payments was $2,271,656, while $119,561 was paid for the Oregon jurisdiction. Other expenses associated with NEEA activities, such as administration and travel, were paid by Idaho Power.

Preliminary estimates reported by NEEA indicate that Idaho Power's share of regional market transformation MWh savings for 2010 is 15,334 MWh, or 1.8 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 behavior change and customer demand for, and satisfaction with, its programs. The Residential Energy Efficiency Education Initiative's goal is promoting energy efficiency to the residential community sector. This goal is achieved by creating and delivering educational programs that increase Idaho Power's energy efficiency program participation and result in energy efficient and conservation-oriented behaviors and choices.

The Residential Energy Efficiency Education Initiative distributed energy efficiency messages through a variety of communication methods during 2010. Increased customer awareness of energy-saving ideas was accomplished via distribution of approximately 8,750 copies 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. The book was updated and reprinted. Searchable versions of both the English and Spanish texts were uploaded to Idaho Power's website during 2010. Customers may now also download or request hard copies of the book via the Web.

Through August of 2010, Idaho Power continued to provide weekly energy efficiency messages each Saturday morning on The HomeFix Show with Joe Prin on 670 KBIO AM. Additionally, energy efficiency messages aired on KBSU radio through February and March.

In May, Idaho Power launched a new educational project partnership with the Idaho Commission for Libraries, Avista, and Rocky Mountain Power. The three utilities worked together to make Energy Efficiency Kits available to all Idaho residents through the public library checkout system. Idaho Power customers represent 60 percent of the population served. There were 245 kits sent to 140 public libraries. The kits contain a Kill A Watt™ Meter, instructions, and energy-saving tips. Based on the first two quarterly reports, with 71 percent and 89 percent of jurisdictions reporting respectively, Idaho Power customers represented 80 percent of the total circulation with 546 checkouts. When library staff members were asked to estimate the satisfaction of their customers, the majority of the responses were positive with 18 percent indicating "very satisfied" and 76 percent indicating "satisfied."

In addition to these activities, Idaho Power was one of the sponsors of the third annual Idaho Green Expo in May. As part of Idaho Power's commitment to the Expo, the company distributed 5,000 re-usable shopping bags with the message "Reduce Your Use" to the more than 8,500 people who attended the 2010 Expo. Idaho Power's educational emphasis this year at the Expo was about *ENERGY Tools*, a full-featured suite of energy efficiency tools available on the company's website. Participants who visited the booth had the opportunity to sign up for *Account Manager* and view near-real-time data of the energy use in their homes. This prompted personal discussion about how individual attendees could reduce their consumption and gave Idaho Power employees the opportunity to introduce the myriad of available tools, such as the Energy Library, Energy Calculators, Home Audit, and other customer resources. The message was well-received. Idaho Power staff at the booth interacted with just over 7 percent of all attendees. *Account Manager* sign-ups for the Expo weekend were up 37 percent and 53 percent, respectively, from the two weekends just prior to the Expo. Moreover, the seven-day period beginning May 8 showed a 23 percent increase in signups over the seven-day period beginning May 1. Idaho Power presented three educational workshops at this event 1) Smart Meters = Smarter Idaho, 2) Renewable Energy for Your Home or Business, and 3) Building Your Home Energy Plan. The company also participated on a residential panel that presented

Building a Greener Idaho. Lastly, Idaho Power partnered with GreenWorks Idaho to develop and administer an exit survey. Information collected about Green Expo attendees centered primarily on why they attended the show. There were 318 surveys completed. The Green Expo participant profiles will be used to improve messaging and goals and increase Idaho Power's return-on-investment for future sponsorship of this event. It will also establish a baseline so Idaho Power can begin to track trends among Green Expo attendees and the population they represent over time. Although 36 percent of the respondents reported having participated in an energy efficiency program and/or A/C Cool Credit, this behavior ranked seventh out of the eight sustainable practices surveyed.

In September 2010, Idaho Power participated in the St. Luke's Women's Show for the third consecutive year. The event was important due to the size of the audience and because its demographic component aligned with Idaho Power's residential energy efficiency target audience. However, the nature of the show did not allow for the desired depth of interaction as in past years. In 2010, Idaho Power focused on drawing participants into the booth to complete an in-depth survey, providing Idaho Power with participant profiles and key market data. The company collected 496 completed surveys, exceeding the goal of 400. Idaho Power plans on refining the survey for this event in upcoming years and using it to inform Idaho Power's educational efforts, program marketing activities, and program design.

Key findings were 13 percent of those surveyed stopped at the booth to learn about energy efficiency, 9 percent said they stopped to learn about Idaho Power's programs, and 4 percent said they stopped to ask a question of the Idaho Power employees at the booth.

Respondents were asked if they had installed or replaced various equipment in their homes in the past three years. Forty percent of respondents said they had replaced a clothes washer, 37 percent a refrigerator, and 30 percent a dishwasher. They were also asked a series of demographic questions like whether they pay the electricity bill at home, what role they play in purchasing or upgrade decisions at their home, whether they own or rent their home, and their gender, age, and education levels.

Idaho Power further increased its energy efficiency presence in the community by providing program information at 116 special events. As part of process improvement accomplishments, the Outreach Tracking System was implemented during the second quarter of the year. It captured details of a variety of outreach activities and requests.

Field staff throughout Idaho Power's service area gave dozens of energy efficiency presentations. The Customer Relations and Energy Efficiency department provided 20 presentations on Idaho Power's energy efficiency programs and energy saving ideas to businesses, schools, and community organizations. The Power to Make a Difference program was delivered 98 times in public schools and 10 times for various civic groups.

Seven of these presentations were part of the 2010 Energy Efficiency & Green Living Series. This series was re-designed to improve the return on investment. Fewer topics were presented at more locations. The residential program specialist along with other program specialists presented content. Publicity was conducted primarily via the Internet and posters/fliers distributed at the venues. In addition to the Boise Public Library, sessions were conducted at the Meridian, Eagle, and Ada Community Libraries. In Twin Falls, the College of Southern Idaho's Sustainability Council hosted two sessions at the College of Southern Idaho. This year's topics were titled *Simple Changes Make Cents: Tips, Tricks & Tools to Reduce Electricity Bills*, and *Get Ready, Get Set, Go: Powering Homes with Alternative Energy*.

The seven sessions combined attracted 135 participants. The Residential Energy Efficiency Education Initiative collected participant evaluations at the 2010 Energy Efficiency & Green Living Series. The survey return rate was 69 percent, with 93 participants completing a survey following the presentations.

Overall, 79 percent of attendees "strongly agree" the information presented was useful, and 66 percent "strongly agree" the information presented met their expectations. Fifty-six percent said they "definitely would" and 44 percent said they "probably would" recommend the session to a friend or family member. Sixty percent said they "very likely" would attend future Energy Efficiency and Green Living Series presentations, and 36 percent said they are "somewhat likely" to attend future presentations. When asked what topic they "would attend" the future, 61 percent responded renewable energy; 49 percent responded landscaping for energy efficiency; 44 percent said Idaho Power rebates and incentive programs; 43 percent said energy-efficient window coverings; and 41 percent said energy efficiency for older homes. Comments related to what actions they would take as a result of attending the session included more energy awareness, changing existing light bulbs, making other home improvements, exploring solar energy options, and looking for ways to better educate themselves.

The Residential Energy Efficiency Education Initiative continued to provide energy efficiency tips in response to media inquiries and for various Idaho Power publications, such as the *Green Power Newsletter*, the *A/C Cool Credit Newsletter*, *Customer Connection*, the high bill/tiered rate customer letters, the AMI door hangers, and *News Scans*.

Idaho Power sponsored two general education efforts during the year. The first was the publication of the 2010 Energy Efficiency insert for use in *The Idaho Statesman* in June. The insert presented Idaho Power's Energy Efficiency Programs, introduced the SEE program and the Kill A Watt Meter program, discussed the reasons why energy efficiency is important, and offered energy efficiency tips regarding choosing a contractor and dealing with the summer heat. It also emphasized *ENERGY Tools* and energy use data available through *Account Manager* as a result of the smart meter installations. The second campaign began in late November and early December. It promoted Energy Efficient Gift Giving ideas through various print media and bill inserts to help educate people regarding considerations when purchasing electronics for their homes.

Idaho Power frequently made additional educational presentations about energy efficiency, Idaho Power programs, and energy efficiency tips. The company created an energy efficiency presentation to educate students about the efficient use of energy in their homes. The program targets fourth- to sixth-grade student audiences. During 2010, the Idaho Power community education team presented *The Power to Make a Difference* in 103 classrooms across the service area. Idaho Power is planning to continue making revisions and improvements to the presentation.

Also during 2010, Idaho Power community education conducted 42 presentations and programs regarding energy efficiency to senior centers and civic groups within the company's service area. *The Power to Make a Difference* presentation demonstrated the importance of energy efficiency in the community. The other component of educational outreach was reviewing energy efficiency program options as well as low- and no-cost ways for customers to save energy and money in their homes or businesses.

In 2010, Idaho Power contracted with Global Energy Partners, LLC, to provide a process evaluation of the Residential Energy Efficiency Education Initiative. This evaluation included a program data review, program logic model, internal customer survey evaluation, industry best practices comparison, conclusions, and recommendations. The final report was received in February 2011 and found that the

program "conducted a wide variety of marketing and outreach to residential customers," and "is well received by the customers reached." Recommendations for program improvement included the need for prioritization of desired behavior changes and the need to gather additional data to enhance the measurement of success of activities the program undertakes. The results of the evaluation are in *Supplement 2: Evaluation.*

The company is currently analyzing other recommendations made by the consultants for possible future implementation. Program changes made in 2011 will be highlighted in the *Demand-Side Management 2011 Annual Report.*

During 2011, 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. Plans for 2011 include working with other Idaho Power program specialists and participating contractors to distribute the book *30 Simple Things You Can Do To Save Energy* to program participants when energy efficiency upgrades are made. Idaho Power will continue the partnership with the Idaho Commission for Libraries, Avista, and PacifiCorp to provide Kill A Watt Meters to libraries throughout Idaho for lending to library patrons and will work with the libraries to establish another distribution channel for *30 Simple Things You Can Do To Save Energy*. Stand-alone energy efficiency education tools, such as newsletter fillers, public service announcements, and one-page discussion starters will be developed and marketed to sustainably-minded businesses and organizations. Contacts will be made with high schools and other educational institutions to see what additional opportunities there may be to provide energy efficiency education and materials for students. The Residential Energy Efficiency Initiative will continue to develop the Outreach Tracking System to improve the quality of data captured and to continue to increase the effectiveness of outreach efforts.

Easy Savings® Program

As a result of IPUC Order No. 30772, Idaho Power committed to fund energy efficiency education for customers receiving energy assistance through the federal LIHEAP. Case No. IPC E-08-10 specified that $125,000 be paid to CAP agencies in the Idaho Power service area on a pro-rated basis. In addition, the target for the educational information is qualified families who heat their homes with electricity provided by Idaho Power. As in 2009, CAPAI, signed a contract with Resource Action Programs (RAP) for provision of the Easy Savings® Program in 2010.

Two main desired outcomes of the Easy Savings Program are to educate recipients about saving energy in their homes to reduce energy usage and to allow hands-on experience installing low-cost measures.

The primary target for the program is households qualifying for energy assistance who do not contain household members who meet criteria for weatherization prioritization. The criteria for a household prioritized for weatherization services include elderly, disabled individuals, and families with children.

The Easy Savings Program provides a kit containing low-cost/no-cost energy-saving items to customers qualifying to receive a LIHEAP benefit on their Idaho Power bill. Kit items include the following:

- CFLs
- 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 and stickers for the laundry and lights
- *Quick Start Guide* to installation (printed in English and Spanish)
- Educational materials and information on Idaho Power energy efficiency programs
- Easy Savings Survey (printed in Spanish and English)

In 2010, payments totaling $125,000 were sent to regional CAP agency executive directors by Idaho Power. The agencies are allowed to keep 10 percent of their portion of the $125,000 to cover expenses for additional time spent on the Easy Savings Program.

Kits were delivered to CAPAI prior to January 2010. Throughout the year, 2,594 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 during 2010. Tracking was done via kit/survey numbering system. Returned surveys were used to track educational impact of the program. A drawing from all returned surveys was held and six families won a $100 gift certificate each, provided by CAPAI.

Of the 2,594 surveys distributed, 273 completed surveys were received back from customers describing their experience installing kit items in their homes, resulting in a 10.5 percent response rate. Nine questions referred to the customer taking a suggested action to reduce energy use, and two other questions confirming installation of kit items.

Overall, survey results show that over 64 percent of the customers who received the kits and returned a survey installed five or more kit items. Over 76 percent of the 268 families answering the question "How much have you learned about saving energy and money in your home?" reported "I learned a lot."

Survey results indicated that 256 families reported recycling or unplugging a second or old refrigerator or freezer. Information about how to apply for a rebate from Idaho Power's See ya later, refrigerator® program was included in kit.

Additionally, 258 families reported they lowered, or will lower, their heat during the day and at night. Other energy efficiency actions taken by participants include 247 families who reported installing both CFLs and the 231 families who reported installing the high-efficiency showerhead included in the kit. Most families reported adjusting water, refrigerator, or freezer temperature as suggested by the *Quick Start Guide*. Copies of the survey and survey results can be found in *Supplement 2: Evaluation*.

In November 2010, CAPAI signed an agreement with RAP to provide 2,127 energy kits for the 2011 program. The kits will be delivered to the CAPAI warehouse before January 2011 for distribution to each agency and to qualified Idaho Power customers throughout the year.

In 2011, each agency will retain 30 percent of their portion of the $125,000 to be used to help pay the salary of a certified educator, as agreed upon by Idaho Power and the CAPAI agencies. Educators from each CAP agency will complete the Home Energy Conservation Certification curriculum taught by CAPAI's Energy Programs coordinator prior to distributing kits to customers. The 2011 program allows agencies 30 percent of the total funds as opposed to the 2010 program, which allowed 10 percent.

Educators in regional agencies will distribute kits and conduct seminars for targeted recipients in order to have all kits distributed prior to the upcoming heating season in the fall.

Continuing in 2011, customers will be encouraged to return the surveys included in the kits in order to be entered into a drawing for prizes provided by CAPAI.

Commercial Education Initiative

Idaho Power continued to enhance its Commercial Education Initiative, established in 2008. The main objectives are to inform and educate commercial customers regarding energy efficiency, enhance awareness and increase participation in existing commercial energy efficiency and demand response programs, and enhance customer satisfaction regarding the company's energy efficiency initiatives. To accomplish these objectives, the program specialist works in tandem with Idaho Power customer representatives assigned to commercial market segments to capitalize on their established strategic customer relationships.

The program specialist oversees the distribution of informational materials and works directly with trade allies, who in turn support and promote Idaho Power's energy efficiency programs. Additionally, the program specialist routinely conducts individual site visits in an effort to customize energy efficiency recommendations for individual customers or customer segment. Site visits also serve as field and staff training opportunities for future site visits.

In 2010, Idaho Power implemented the use of the Equipment Efficiency Specification Sheets developed by the company in 2009 for customer use. The information contained on these specification sheets focus on common commercial facility equipment and energy efficiency opportunities.

Idaho Power carried out its plan to capitalize on effective customer projects by creating success stories that highlight customers' energy efficiency projects. Nineteen customer *Success Stories* were added in 2010 to the Custom Efficiency webpage on the Idaho Power website at www.idahopower.com/EnergyEfficiency/Business/Programs/CustomEfficiency/customEfficiency_SuccessStories.cfm and are included in *Supplement 2: Evaluation*.

Also in 2010, Idaho Power developed Energy Efficiency Tip Sheets for use by commercial customers. These tip sheets provide standardized energy efficiency recommendations tailored to specific commercial market segments, which included restaurants, health care facilities, hotels, and grocery stores. Market segments were identified using the North American Industry Classification System's Standard Industrial Classification (SIC) codes for each segment. Informational materials, including the health care, hotel, and grocery tip sheets were given to customers during site visits. The restaurant tip sheet was used in a mass mailing to over 2,100 customer locations. Because of the low return for the cost required to do target mailings, distribution of the other three target pieces will be done through site visits and customer request for information.

By year-end, the Commercial Education Initiative staff performed a total of 96 walkthrough evaluations, contractor visits, and presentations to municipalities and professional groups. Idaho Power provided input and funding for 48 presentations and training sessions, in collaboration with the IDL in Boise.

Another important part of the education initiative is identifying challenges in the delivery of efficiency education messages to commercial customers. A newly emerging challenge has been locating appropriate audiences. As the industry matures, audiences needing energy information are not readily identifiable. The accessibility to receptive audiences has become much more difficult over the past few

years. Two years ago, almost any energy topic presentation appropriately marketed was well attended. In 2010, there were energy efficiency presentations and trainings offered industry-wide with limited new content, provided to audiences knowledgeable about energy efficiency. Often, attendees were energy efficiency authorities or established contractors. In most presentations and trainings in 2010, knowledgeable and experienced attendees outnumbered the audience needing energy efficiency ideas and practices.

A possible solution for locating untapped markets in need of energy efficiency training was identified through interactions with another organization that Idaho Power collaborated with in 2010. Idaho Power conducted a joint presentation/training in McCall in 2010 with the Snake River Alliance (SRA). This well-attended event generated numerous requests for information and services. The SRA targets smaller markets where training and resources are less available. They identified participant fatigue as an issue, which plagues other organizations concerned with efficiency information and training. Because of the event, a potential market emerged; the smaller commercial markets in rural areas. Another use of the smaller market approach in 2010 was an Idaho Power presentation for the Idaho Commission for Libraries, resulting in high attendance and further requests for information and services.

Idaho Power contracted with The Cadmus Group, Inc. to provide a process evaluation of the Commercial Education Initiative. This evaluation included a program data review, program logic model, internal customer survey evaluation, industry best practices comparison, conclusions, and recommendations. The final report was received in February 2011. The report noted that this initiative provides valuable educational and technical services to commercial customers and supports many of the programs in Idaho Power's commercial/industrial portfolio. Recommendations for program improvement included the need to have more clearly defined goals, update marketing materials, enhance program tracking capabilities, and gather customer feedback. Idaho Power is currently analyzing all recommendations. Program changes made in 2011 will be highlighted in the *Demand-Side Management 2011 Annual Report*. The complete report is provided in *Supplement 2: Evaluation*.

In 2011, the Commercial Education Initiative will seek future opportunities to assist small communities interested in learning more about energy efficiency. The initiative will continue to conduct site visits, use the Equipment Efficiency Specification Sheets, distribute target market information tip sheets, and present at professional meetings. Additionally, the initiative will continue to work with education programs. such as Boise State University's Small Business Development Center, supporting their efficiency evaluations for small businesses. Also in 2011, the initiative will provide consultation to energy efficiency education programs at local colleges, including College of Western Idaho and the College of Southern Idaho. A sixth tailored Energy Efficiency Tip Sheet, designed for schools, will be distributed in 2011, along with the other five tailored tip sheets providing standardized and specialized energy efficiency recommendations.

Final reports from The Cadmus Group's, Inc., 2010 process evaluations were received in February 2011. All viable process recommendations will be considered and prioritized for implementation in 2011. Process changes implemented in 2011 will be highlighted in the *Demand-Side Management 2011 Annual Report*.

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.

In 2010, Idaho Power sponsored one LEEF project. A payment of $250 was made to the Idaho Conservation League (ICL) to sponsor 50 percent of the cost of a home audit and weatherization demonstration, in support of ICL's 10/10/10 energy efficiency initiative. The initiative was part of a national effort by conservation organizations to highlight global warming by sponsoring various demonstrations and activities on October 10, 2010. The day's events in Hailey, Idaho, included a public educational forum that Idaho Power personnel participated in and the home-audit demonstration.

Students for Energy Efficiency

Idaho Power created the SEE program in 2009. Idaho students participate in energy assessments of their schools and homes using science and math skills to evaluate and provide recommendations regarding energy improvements and energy efficiency. At numerous presentations, including EEAG, the success of this program has been praised.

There were two primary initiatives in 2010. The first one was a program for high school students. The project is designed as a "learning lab" where students gain a better understanding of energy, how it is measured, and how to use it more efficiently. The second initiative was an elementary program focused on sixth-grade students. Students receive a tool kit and exercises that the sixth graders work on in their classroom, as well as take-home exercises to work on with their families.

During the 2010–2011 school year, over 300 students are participating in the high school program, and over 6,500 students are participating in the elementary program.

The SEE program promotes targeted educational standards that reinforce the Idaho Department of Education Content Standards for Science. The four main topics addressed are: 1) defining energy, 2) identifying how energy is used, 3) describing energy measurement methods, and 4) determining how energy can be used more efficiently.

Schools participating in the SEE program provide benefits to their communities in the form of reduced energy use and reduced operating costs. Evaluations by program participants were conducted following the completion of the students' assessment reports, presentations, and participation.

During the summer of 2010, a review of the program activities for the 2009–2010 school year was conducted with the assistance of the SEE Community Advisory Group, participating teachers and students, Idaho Power's customer research and analysis leader, customer research coordinator, and energy efficiency evaluator. Teacher survey results, as compiled and analyzed by the customer research coordinator, indicate overwhelming approval and continued interest in the program.

The in-school training schedule was adjusted to include two training sessions per school. The first two-hour session introduces the program and the Crime Scene Investigation (CSI)/Energy Scene Investigation (ESI) concept to students; acquaints them with the equipment; and introduces concepts on assessing lighting, building envelope, plug and phantom loads, and energy usage per square foot. A second one-hour session assists students in analyzing and understanding energy assessment data they have collected; using the Easy Upgrades Calculator to determine current energy usage and potential energy and cost savings based on their recommendations; and determining report format and target audiences for presentations.

Presentations promoting the SEE program were made to the Idaho Science, Technology, Engineering and Mathematics (iSTEM) conference, the Idaho Environmental Education Association conference, and the Idaho Science Teachers Association conference.

The development of the SEE program followed the IPUC Order No. 30760, dated March 27, 2009, directing the use of a portion of the proceeds from 2007 sulfur dioxide (SO_2) emissions credits sold by Idaho Power. The order called for delivery of the energy education program for two years and a report summarizing the results. Idaho Power will produce the report following the close of the 2010–2011 school year.

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 in various subcommittees.

The forum's purpose is advising BPA, the NPCC, the region's utilities, and organizations, including NEEA and the 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 takes the information provided by the RTF into consideration when conducting research and analysis on new and current measures. The RTF meets 10–12 times annually to review and provide comments on analyses and other materials prepared by NPCC and BPA staff and RTF contractors. Idaho Power uses the savings estimate and calculations provided by the RTF when applicable to the Idaho climate zones and load characteristics.

In 2010, Idaho Power staff participated in all of the RTF's meetings and was involved in various subcommittees. Idaho Power has been involved in the ongoing Commercial Rooftop Unit Work Group (RTUG) subcommittee since 2007. Currently, nine sites in Idaho Power's service area have been metered since 2008 and is part of the nation's largest publically available rooftop unit data set. A commercial program specialist actively participates in the RTUG subcommittee meetings. The Idaho Power Irrigation sector specialists contributed to the irrigation measure analysis while on the Irrigation Hardware Subcommittee during 2009 and early 2010. An Idaho Power Custom Efficiency program specialist was solicited for the Grocery Refrigeration Subcommittee in 2010 and will remain on the subcommittee during 2011. Also in 2011, the H&CE Program specialist will participate on the Ground-Source Heat Pump Subcommittee.

Boise City Home Audit Project

The City of Boise received stimulus dollars via the US DOE Energy Efficiency Conservation Block Grant (EECBG). Idaho Power is partnering with the city to create a limited-term, residential energy audit project that will include installation of some low-cost energy-saving measures for 650 homes. The audits will identify larger efficiency needs. Homeowners will be provided information on programs that can assist them with the costs of implementing these additional measures, such as information on the City of Boise's Home Improvement Loan Program.

Idaho Power will design and manage the project, with City approval, and contract with HPS to perform the energy audits and installation of measures.

The energy audit will include a blower door test, a visual inspection of 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 include limited sealing of air leaks, such as mastic around furnace unit; installing CFLs; insulating water pipes that are three feet or less between the water heater and the structure; and installing a low-flow showerhead. The visit will include educating customers on a variety of items, such as how to replace their furnace filter or lower the temperature on their water heater.

Participating customers pay $49 for the audit and installation of measures, with the remaining cost covered by the EECBG funds. This is a great value for the customer. Energy audits of this type normally cost $300 and more, not including the measures, materials, and labor. The cost of the materials potentially installed at each home is approximately $100.

Target audience for this project is Boise City residential customers living in single-family, site-built homes under 3,000 square feet. The homes must be owner-occupied as a year-round residence. It is necessary for the customer to have lived in the home for at least 12 months, allowing retrieval of a full year of historical data prior to installation of any measures related to this project. In addition, it is desirable that the customer plans to stay in the home for the next year or two. This would allow post-installation data collection based on the same family/electric use style. Twenty-five percent of targeted homes must be all electric.

Participants will be selected on a first-come, first-served basis. Applicants received beyond the allotment will be placed on a standby list to be used if an accepted applicant decides not to participate or does not qualify.

In 2010, the project design was complete. An RFP for auditors was sent, applicants reviewed, and three companies selected. The selected auditors and QA company completed contracts. In October 2010, the auditors were trained on the project and process. The project launched mid-November, and marketing letters were sent to a small randomly selected group from a larger target group. The audits and QA of the audits began after that. Reporting to the city is done monthly and quarterly. Audits and QA will continue through approximately May 2011. At that time, the analysis process will begin.

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.

Since 2002, Idaho Power has recovered its DSM program costs through the Rider with the intended result of providing more timely recovery of DSM costs. To address the removal of financial disincentives, Idaho Power is testing the effects of a FCA mechanism in a five-year pilot initiative. The FCA pilot just completed year four. To introduce an option to provide financial incentives for DSM, the company filed in October Case IPC-E-10-27 to move incentive payments for one DSM program to a regulatory asset account in order to begin earning its authorized rate of return on the DSM investment. This will allow some energy efficiency investments to be treated similar to supply-side investments and not treated as inferior investments. In the same filing, the company also proposed moving the recovery of incentive payments of demand response programs out of the Rider mechanism and into the PCA mechanism. This move would treat the cost recovery of demand response incentive payments similar to other supply-side resource expenses such as fuel, purchase power, and surplus sales. These mechanisms are discussed in more detail below.

Fixed-Cost Adjustment Pilot

Under the FCA, rates are annually adjusted 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. The FCA Pilot is limited to the residential and small commercial classes in recognition of the fact that, for these customers, a high percentage of fixed costs are recovered through their energy charges.

During the initial three-year period in which the FCA, Schedule 54, was in effect, 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 three years of the pilot indicated that the true-up mechanism was working as intended.

On October 1, 2009, the company filed an application with the IPUC to convert the FCA to an ongoing and permanent rate schedule. On April 29, 2010, the IPUC issued Order No. 31063 extending the FCA as a pilot for an additional two years, effective January 1, 2010.

On May 28, 2010, the IPUC issued Order No. 31081 approving the company's request to implement FCA rates for fixed-cost deferrals in 2009. Beginning June 1, 2010, the company implemented an overall rate adjustment of 1.85 percent to residential and small general service customers to collect a combined $6.3 million in under-collected fixed costs. Residential customers experienced a rate increase of 0.1218 cents/kWh, while small general service customers experienced an increase of 0.1535 cents/kWh. The rate adjustments resulted in a collection of an additional $3.6 million over the then current billed amounts and will be in place until May 31, 2011.

Irrigation Peak Rewards Filings in Idaho and Oregon

In 2010, Idaho Power enhanced its traditional annual review of the Irrigation Peak Rewards program by conducting an additional study in conjunction with its 2011 IRP analysis. This study was conducted in an effort to ensure that the program's design is aligned with the resource needs identified by the IRP.

After a thorough review of resource need and demand-reduction potential, the company concluded that its need for demand response extended beyond 8:00 p.m. to at least 9:00 p.m. Further, the company concluded that its annual capacity need during the highest 60 hours of demand was expected to vary by more than 50 percent (167 MW) during the next five years. Based on these findings, the company filed program modifications to its Irrigation Peak Rewards programs in Idaho (Case No. IPC-E-10-46) and Oregon (Advice No. 11-01).

In its filings, Idaho Power first sought to include the 8:00 p.m. to 9:00 p.m. hour as an "Extended Interruption" option on a voluntary basis. Customers willing to accept an extended interruption period would receive a higher incentive payment for event hours. In return, Idaho Power would be able to reduce loads across the entire peak period.

Second, in an effort to better align annual program costs with the annual capacity need, the company proposed to change the incentive structure for the program from a fixed incentive payment methodology to a methodology that combined a fixed and variable incentive payment. Having a portion of the incentive based on the actual utilization of the resource would more closely align the cost of demand response with the variable capacity needed.

Third, to encourage equipment testing and participant familiarity with the program, Idaho Power recommended the program be modified to allow one program test event per program season that is not subject to a variable payment.

Overall, the proposed program modifications are reflective of a collaborative process in which Idaho Power received feedback from numerous stakeholder groups, including the Idaho Irrigation Pumpers Association, the Commission Staff, the EEAG, and the IRPAC. The revised program, as proposed, will more closely align program incentives with the company's need for demand response. The company will continue to monitor the program's performance and report on program results next year through the *Demand-Side Management 2011 Annual Report*.

Demand-Side Resource Business Model Filing

On October 22, 2010, Idaho Power filed Case No. IPC-E-10-27 with the IPUC requesting authorization to implement a demand-side resource (DSR) business model that would 1) move demand response incentive payments into the PCA on a prospective basis beginning June 1, 2011; 2) establish a regulatory asset for Custom Efficiency program incentive costs beginning January 1, 2011; and 3) change the carrying charge on the Idaho Energy Efficiency Rider (Rider) from the customer deposit rate to the company's authorized rate of return. Idaho Power requested an order by March 15, 2011.

Idaho Power stated in the filing that from a regulatory standpoint, successful DSR business activities require clear and achievable guidelines for prudency. There must be a timely recovery of out-of-pocket expenditures that appropriately recognizes the time value of money and does not negatively impact cash flow in a significant way. Economic disincentives to reduce load must be mitigated through better pricing, decoupling, or some other mechanism that does not strand fixed cost recovery. Finally,

the company must have the ability to earn on the energy efficiency investments just like any other business activity in which the company is engaged.

The Rider balance is presently negative by more than $17 million and has been negative since April 2008. The large growing balance reflects success associated with increasing programs, expenditures, and savings in DSR. However, continuing to increase the negative balance is problematic. A Rider account with an extended negative balance breaks the symmetry of the mechanism and negatively impacts the company's cash flow. The company believes there is a more appropriate path that would allocate some of the expenses to more suitable alternatives for recovery.

All costs for the demand response programs are presently recovered through the Rider. Currently, the Idaho Rider charge is 4.75 percent of base rates applied to all customer groups. In this filing, Idaho Power requested authority to remove recovery of customer and demand-aggregator contractor incentive payments for all company demand response programs from the Rider balancing account and transfer these costs to the PCA for 100 percent recovery on a prospective basis. Idaho Power proposed to begin shifting the recovery of the demand response incentive costs to the PCA beginning with the company's forecast of April 2011 through March 2012 power supply costs, currently expected to be approximately $14.6 million. Idaho Power proposes to include these costs in the PCA in a manner consistent with the current PCA methodology. The company would forecast Idaho demand response incentive payments just as it does for its forecast of fuel, purchased power, and surplus sales. This forecasted amount of demand response incentive costs would be included in PCA rates, effective June 1, 2011.

In addition to moving demand response incentive costs to the PCA, Idaho Power proposed to change the method of recovering a portion of the energy efficiency program incentive costs. Currently, all energy efficiency incentive costs are recovered through the Rider balancing accounts. The company proposed to capitalize the direct incentive payments associated with the Custom Efficiency program to enable the company to earn a return on a portion of its DSR activities. The company proposed to start booking incentive payments to a regulatory asset account beginning January 1, 2011. The balance in the account would be included in the company's revenue requirement at the time of a future rate case and would be amortized over four years. The then-current commission authorized rate of return would be applied as a carrying charge during the deferral period and the amortization period. This treatment will keep the selected DSR assets on par with supply-side assets.

Because of the large negative balance existing in the Rider and because it will take almost two years to work this balance down given the prospective nature of the company's previously stated requests, Idaho Power requests that the IPUC authorize the carrying charge on the remaining balance to reflect the company's authorized rate of return (currently 8.18 overall rate of return with a 10.5 return on equity component) instead of the interest rate on customer deposits (currently 1.0 percent). Changing the current carrying charge is particularly important should the IPUC decide against part or all of the company's requests.

If the IPUC implements the company's two proposals, the 2010 negative Rider balance of $17,592,938 is projected to shrink to a negative $3,356,306 in 2011 and, in the middle of 2012, it is expected that this account will approach zero.

On March 3, 2011, Idaho Power filed testimony in support of a settlement Stipulation in this case. Terms of the Stipulation include moving demand response program incentives associated with the A/C Cool Credit program, the Irrigation Peak Rewards program, and the FlexPeak Management program to the PCA on a prospective basis beginning June 1, 2011. A one-year interim per kWh tariff

rate will be implemented for each customer class in order to recover the same amount of revenue from each class as would have been recovered through a DSM Rider charge. The parties agree that incentive payments of the Custom Efficiency program would be capitalized as a regulatory asset beginning January 1, 2011, with a carrying charge equal to the current IPUC authorized rate of return. Once placed in rates, this regulatory asset will be amortized over seven years and will earn the then-current, commission-approved authorized rate of return. The parties also agree that the Idaho Rider carrying charge will remain at the customer deposit rate. The parties signing the Stipulation were Idaho Power, IPUC Staff, the ICL, Northwest Energy Coalition, SRA, and CAPAI. The Idaho Irrigation Pumpers Association, Inc., did not sign the Stipulation, but do not oppose it. The industrial customers of Idaho Power did not sign the Stipulation and are expected to file testimony in opposition to the Stipulation. At this time, the IPUC has not issued a final order in this case.

Energy Efficiency Rider—Prudency

On March 16, 2010, Idaho Power, under Case No., IPC-E-10-09 filed an application to the IPUC for an order designating Idaho Power's expenditure of $50,701,740 in Idaho Rider funds in 2008 and 2009 as prudently incurred expenses. This prudency filing was the first designed to comply with the agreed-upon principles set forth in the MOU for Prudency Determination of DSM Expenditures. The filing included as attachments to the *Demand-Side Management 2009 Annual Report*, along with two new documents, *Supplement 1: Cost-Effectiveness* and *Supplement 2: Evaluation*. On November 16, 2010, in Order No. 32113, the IPUC found that the company acted prudently in the administration of its DSM programs and found its 2008 and 2009 Rider expenditures were approved for ratemaking purposes. On page 9 of the Order, the IPUC states; "The Commission exhorts Idaho Power to continue on this path toward improvement. Idaho Power should seek to employ independent evaluators for all of its DSM programs and take affirmative steps toward achieving measurable improvements in its documentation, verification and record-keeping processes for these programs."

Energy Efficiency Rider—Oregon

On March 5, 2010, Idaho Power filed a request with the OPUC under Tariff Advice 10-03 to increase the Rider from 1.5 percent of base rates to 3.0 percent of base rates and to eliminate the funding caps on residential and irrigation bills. On April 27, this request was approved, effective June 1, 2010.

CONTINUED COMMITMENT

Every year, Idaho Power enhances its commitment to providing 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 its employees' lives. A review of specific efforts is listed in the following sections.

Continued Expansion and Broad Availability of Efficiency and Demand Response Programs

In 2010, Idaho Power broadened the 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 2010 are as follows:

- Weatherization Solutions for Eligible Customers program expanded to the Idaho counties of Canyon, Gem, Payette, Boise, Washington, Valley, and Adams.
- Idaho Power partnered with City of Boise to implement the Boise City Home Audit Project to provide reduced priced audits for 600–700 residents.
- Idaho Power was a major sponsor of Idaho's first Net-Zero Energy Home promotion in conjunction with the St. Jude Dream Home campaign.
- In June 2010, as part of the Home Products Program, Idaho Power began a showerhead promotion program for 1.5 GPM and 2.0 GPM units and added freezers to the program's offerings.
- The successful SEE program completed a second year of operation with 300 high school and 6,000 elementary students participating.
- New educational material was developed for several programs including a Healthy Homes Guide and Energy Efficiency Kits available at local libraries.
- More information was available on the Web for customers interested in energy efficiency, including the booklet *30 Simple Things You Can Do To Save Energy* and access to individualized *Energy Tools*.
- Energy Efficiency Tip Sheets were developed for different sectors of commercial customers.
- Custom Efficiency participants' *Success Stories* were posted to the Idaho Power website.

Building-Code Improvement Activity

Idaho Power was supportive of the legislative effort in the Idaho State legislature to enact the 2009 IECC for implementation January 1, 2011.

Pursuit of Appliance Code Standards

In 2010, Idaho Power provided support for efforts for national appliance standards. Letters of support were provided to both Senator Mike Crapo and Senator James Risch pointing to the broad economic, operational, and environmental benefits of energy efficiency to the citizens of Idaho.

Promotion of Energy Efficiency through Electricity Rate Design

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

In 2010, Idaho Power took a new look at its policy for how to work with new and expanding large-load customers. A policy was established that provides service consistent with system capability, that offers a suite of flexible services, including seasonal shaping and standby service, that provides some mitigation of rate impacts on existing customers and that considers sustainability, economic development goals, and environmental effects of using the company's resources. As part of this effort, in August, the company filed to change the eligibility cap for Schedule 19 customers from 25 MW to 20 MW. By lowering the size limit, the company can address these service issues to new large loads that may be coming into the service area. In December 2010, under Order No. 32132, the IPUC approved the request.

On March 1, 2010, as per Order 10-064 in General Rate Case UE 213, Idaho Power implemented mandatory time-of-use rates (TOU) for all customers on Schedule 9 Primary and Schedule 9 Transmission. With this rate change, all industrial customers on Schedule 19 and Schedule 9 P and T across the Idaho Power service area are on TOU rates. Idaho Power also implemented a load-factor pricing rate structure for irrigation customers on Schedule 24 in Oregon. These rate change proposals were driven by the explicit Idaho Power objective of providing customers with cost-based price signals, which encourage the wise and efficient use of energy.

Third-Party, Independent Verification

Idaho Power understands that credible and transparent program evaluations are critical to ensuring maximum program performance. Independent, third-party consultants are used to provide impact and process evaluations to verify that program specifications are met, provide viable recommendations for program improvement, and validate energy savings achieved through Idaho Power's programs.

In 2010, process evaluations were completed by third-party consultants on nine programs, including H&CE Program, Energy House Calls, Home Improvement Program, Residential Energy Efficiency Education Initiative, Easy Upgrades, Building Efficiency, Custom Efficiency, Commercial Energy Efficiency Education Initiative, and Irrigation Efficiency Rewards. Copies of these reports can be found in *Supplement 2: Evaluation*.

Idaho Power uses independent, third-party contractors for QA and OSV for several programs. The H&CE Program uses a third-party contractor to perform QA and OSV of approximately 10 percent of completed customer projects. The Energy House Calls program contracts with third-party experts to perform QA analysis on approximately 5 percent of homes serviced by the program. These contractors visit the customer site within approximately one month of the energy house call to verify that the energy efficiency measures were performed to program specifications. And the ENERGY STAR® Homes Northwest program uses contractors for third-party verification, ensuring that each ENERGY STAR

qualified home is built to ENERGY STAR standards. Another third-party contractor provides QA and certifies each qualifying home as an ENERGY STAR home.

Throughout 2010, Idaho Power participated with NEEA to conduct several third-party evaluations. These studies included evaluation of the DHP Pilot, Residential Lighting Market Research, Market for Energy Efficient Electronics, Evaluation of Codes and Standards Market Progress, Northwest ENERGY STAR Homes Northwest, and several market effects evaluations in the residential, commercial, and industrial sectors.

The company also funds and participates in the RTF. The RTF is an advisory committee that was established in 1999 to develop regional standards for verifying and evaluating savings 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 for a portion of the energy efficiency measures implemented by the company's customers.

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.

Idaho Power's corporate headquarters (CHQ) participated in strategic elimination of power loads during peak use through the FlexPeak Management program. In August, Idaho Power entered into an agreement with EnerNOC 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. The agreement with Idaho Power to enroll the CHQ was executed in early August 2010. Unlike other program participants, Idaho Power does not receive any financial incentives to participate. By the end of August, the company received usage data through EnerNOC's energy monitoring software and performed CHQ site-testing to establish the amount of load available for reduction. The amount of reduction EnerNOC commits to achieve on Idaho Power's behalf will be based on the demand reduction available at the CHQ each week during the active program season beginning in June 2011. EnerNOC is obligated to achieve the reduction they nominate, or commit to, each week if Idaho Power calls an event. EnerNOC works closely with its program participants to estimate their reduction potential accurately. Idaho Power now has a facility reduction plan in place that could be executed at any time to reduce electricity use if necessary.

During 2010, the company continued with the multi-year remodel and retrofit of the CHQ, completing the second floor of the building. The project included installing T-5 lighting that uses 60 percent less energy than old lighting packages. Natural light supplemented the T-5 lighting, accomplished through light harvesting near the exterior walls. Additionally, use of shorter 53-inch cubical partitions allowed more daylight while reducing lighting costs. Further retrofits included occupancy and vacancy sensors in all enclosed office and meeting spaces, low-flow toilets and automatic sink faucets in the restrooms, and window blinds that are 60 percent opaque with a horizontal range of motion that never needs closed. Other projects included the ongoing Payette Operations Center upgrades from T-12 to T-8 high-bay fluorescent lighting in the garage and materials area. The Canyon Operations Center lighting retrofit from T-12 to T-8 throughout the facility was completed in 2010. Twin Falls Operations Center's garage and materials areas received upgrades, from T-12 fixtures to high-bay fluorescent T-8 fixtures.

Numerous energy efficiency projects are budgeted for 2011. The remodel of the CHQ will continue with a focus on the first floor. A completion of the lighting retrofit at the Payette Operations Center is planned. Though it will take several years to complete lighting retrofits in the company's sub-stations across the service area, planning is underway in 2011. The company is engineering a new energy-efficient chilled water system for the CHQ with implementation planned during 2012 through 2013.

CAES Energy Efficiency Research Initiative

The Center for Advanced Energy Studies (CAES) is a public–private technical and policy research partnership based in Idaho Falls, and comprised of Boise State University, Idaho State University, University of Idaho, the DOE, and Idaho National Laboratory (INL). The State of Idaho launched the newest activity under the CAES umbrella on October 27, 2010 when Idaho Governor C.L. "Butch" Otter announced the formation of the CAES Energy Efficiency Research Initiative (CEERI).

Idaho Power was involved in the initial discussion and planning for CEERI, and joined Governor Otter and other representatives of participating entities in signing a proclamation in support of the initiative's formation. Signatories included Boise State University, University of Idaho, Boise Metro Chamber of Commerce, National Resources Defense Council, Idaho Office of Energy Resources (IOER), Idaho Innovation Council, Micron Technology, and other Idaho-based companies.

The initiative's initial focus is in four main areas: 1) public outreach and education, 2) workforce development, 3) college-level curriculum, and 4) research/technical development. Idaho Power's involvement in CEERI enables the company to positively influence energy-efficiency education and research. The company will also benefit from educational opportunities for Idaho Power customers and employees and from the development of a workforce with relevant skills.

Sustainable Operations/Sustainability

In 2010, Idaho Power began an internal sustainability effort with a mission to promote and support exceptional financial, environmental, and social stewardship across Idaho Power business practices. A Sustainability Council was formed with members representing major company departments with the expressed vision to make sustainability a corporate value. A sustainability charter containing an operational definition, mission, vision, and objectives was drafted for review and endorsement by executive council. The objectives for 2011 include development of a sustainability plan. This plan included internal and external reporting, and determination of baseline operating parameters for several Idaho Power facilities, including energy use.

Green Team

During spring 2010, Idaho Power employees started an internal Green Team. The mission of the Green Team was to champion sustainable activities by Idaho Power and its employees that promoted energy efficiency, environmental and community stewardship, and the wise use of resources. Some of the projects worked on during 2010 included a company-wide recycling initiative, the Refugee Community Garden Project, a no-idling campaign, and a monthly Green Bag educational seminar effort.

APPENDICES

This report includes five appendices. Appendix 1 contains financial information for 2010, showing the beginning balance, ending balance, and the expenditures for the Idaho and Oregon Riders, BPA funding, and NEEA payments and credits. Appendix 2 also contains financial information showing expenses by funding source for each of Idaho Power's energy efficiency 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 2010. Appendix 4 shows similar data as Appendix 3, but also includes data for past years' program performance, B/C ratios from the utility perspective, and from the TRC perspectives for active programs. An addition to this year's report is Appendix 5. This new appendix shows program savings and costs separated into Idaho Power's Idaho and Oregon jurisdictions and by funding source.

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. A new table, *2010 DSM Detailed Expenses by Program*, 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 various 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 included with each supplement.

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Appendix 1. Idaho Rider, Oregon Rider, and NEEA funding balances

Idaho Energy Efficiency Rider	
2010 Beginning Balance	$ (9,718,518)
2010 Funding plus Accrued Interest	34,605,272
Total 2010 Funds	24,886,751
2010 Expenses	(42,479,692)
2010 Year-End Balance	$ (17,592,938)
Oregon Energy Efficiency Rider	
2010 Beginning Balance	$ (866,772)
2010 Funding plus Accrued Interest	697,464
Total 2010 Funds	(169,308)
2010 Expenses	(1,704,367)
2010 Year-End Balance	$ (1,873,675)
NEEA Payments and Escrow Credit Funds Balance	
2010 Idaho Power Contractual Obligation[a]	$ 2,391,217
2010 Year-End Balance	$ 2,391,217

[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 1st for year-end. A true-up of the variance will be included in the next quarter's invoice, not to exceed 125% of its five-year total direct funding contribution.

Appendix 2. 2010 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	$ 1,854,979	$ 74,071	$ 73,496	**$ 2,002,546**
Ductless Heat Pump Pilot	181,969	7,262	0	**189,231**
Energy Efficient Lighting	2,442,931	58,347	0	**2,501,278**
Energy House Calls	724,895	37,435	0	**762,330**
ENERGY STAR® Homes	369,344	6,093	168	**375,605**
Heating & Cooling Efficiency Program	314,963	12,706	0	**327,669**
Home Improvement Program	944,716	0	0	**944,716**
Home Products Program	813,171	18,990	0	**832,161**
Oregon Residential Weatherization	0	4,575	1,475	**6,050**
Rebate Advantage	34,283	5,119	0	**39,402**
See ya later, refrigerator®	548,872	16,207	0	**565,079**
Weatherization Assistance for Qualified Customers	0	0	1,321,132	**1,321,132**
Weatherization Solutions for Eligible Customers[a]	216,202	2,306	9,917	**228,425**
Commercial/Industrial				
Building Efficiency	1,466,179	43,422	81	**1,509,682**
Easy Upgrades	3,862,653	111,757	0	**3,974,410**
FlexPeak Management	1,807,527	95,153	0	**1,902,680**
Holiday Lighting	45,816	316	0	**46,132**
Oregon Commercial Audits	0	5,049	0	**5,049**
Custom Efficiency	8,046,168	717,132	14,825	**8,778,125**
Irrigation				
Irrigation Efficiency Rewards	2,059,676	110,034	31,104	**2,200,814**
Irrigation Peak Rewards	13,096,946	184,075	49,805	**13,330,826**
Energy Efficiency Total	**$ 38,831,290**	**$ 1,510,049**	**$ 1,502,003**	**$ 41,843,342**
Market Transformation				
NEEA[b]	2,271,656	119,561	0	**2,391,217**
Market Transformation Total	**$ 2,271,656**	**$ 119,561**	**$ 0**	**$ 2,391,217**
Other Programs and Activities				
Residential				
Residential Energy Efficiency Education Initiative	211,695	10,397	0	**222,092**
Commercial				
Commercial Education Initiative	65,327	3,438	0	**68,765**
Other				
Energy Efficiency Direct Program Overhead	100,087	7,831	9,956	**117,874**
Local Energy Efficiency Funds	238	13	0	**251**
Other Programs and Activities Total	**$ 377,347**	**$ 21,679**	**$ 9,956**	**$ 408,982**
Indirect Program Expenses				
Residential Overhead	132,082	6,941	0	**139,023**
Commercial/Industrial/Irrigation Overhead	143,140	7,543	0	**150,683**
Energy Efficiency Accounting and Analysis	698,907	37,068	136,833	**872,808**
Energy Efficiency Advisory Group	2,651	112	0	**2,763**
Special Accounting Entries	22,619	1,414	0	**24,033**
Indirect Program Expenses Total	**$ 999,399**	**$ 53,078**	**$ 136,833**	**$ 1,189,175**
Totals	**$ 42,479,692**	**$ 1,704,367**	**$ 1,648,792**	**$ 45,832,851**

[a] Oregon Rider balance of $2,306 will be reclassed to the Idaho Rider in 2011.

[b] NEEA funding addressed in IPUC per Order No. 31080, dated 5/12/10. 2011 annual expense expected at $3.3 m (see footnote, Appendix 1 for additional information).

Appendix 3. 2010 DSM program activity

Program	Participants		Total Costs		Savings		Measure Life	Nominal Levelized Costs[a]	
			Utility[b]	Resource[c]	Annual Energy (kWh)	Peak Demand[d] (MW)		Utility ($/kWh)	Total Resource ($/kWh)
Demand Response									
A/C Cool Credit	30,803	homes	$ 2,002,546	$ 2,002,546	n/a	39.0	n/a	n/a	n/a
Irrigation Peak Rewards	2,038	service points	13,330,826	13,514,246	n/a	249.7	n/a	n/a	n/a
FlexPeak Management	60	sites	1,902,680	1,902,680	n/a	47.5	n/a	n/a	n/a
Total			**$ 17,236,052**	**$17,419,472**	**n/a**	**336.2**			
Energy Efficiency									
Residential									
Ductless Heat Pump Pilot	104	homes	$ 189,231	$ 439,559	364,000		20	$ 0.044	$ 0.103
Energy Efficient Lighting	1,190,139	bulbs	2,501,278	3,976,476	28,082,738		5	0.020	0.031
Energy House Calls	1,602	homes	762,330	762,330	1,198,655		20	0.054	0.054
ENERGY STAR® Homes Northwest	630	homes	375,605	579,495	883,260		25	0.033	0.051
Heating & Cooling Efficiency Program	217	homes	327,669	1,073,604	1,104,497		20	0.025	0.083
Home Improvement Program	3,537	homes	944,716	2,112,737	3,986,199		45	0.016	0.035
Home Products Program	16,322	appliances/fixtures	832,161	1,025,151	1,443,580		15	0.057	0.070
Oregon Residential Weatherization	1	home	6,050	6,275	320		30	0.011	0.062
Rebate Advantage	35	homes	39,402	66,142	164,894		25	0.018	0.031
See ya later, refrigerator®	3,152	refrigerators/freezers	565,079	565,079	1,567,736		8	0.054	0.054
Weatherization Assistance for Qualified Customers	400	homes/non-profits	1,321,132	2,927,898	3,741,652		25	0.027	0.035
Weatherization Solutions for Eligible Customers	47	homes	228,425	228,425	313,309		25	0.056	0.056
Sector Total			**$ 8,093,078**	**$13,763,171**	**42,850,839**		**12**	**$ 0.021**	**$ 0.036**
Commercial									
Building Efficiency	70	projects	1,509,682	3,312,963	10,819,598	0.9	12	0.016	0.035
Easy Upgrades	1,535	projects	3,974,410	7,655,397	35,824,463	7.8	12	0.013	0.024
Holiday Lighting	25	projects	46,132	65,308	248,865	0.0	10	0.024	0.034
Oregon Commercial Audits	22	audits	5,049	5,049	n/a		n/a	n/a	n/a
Sector Total			**$ 5,535,273**	**$11,038,718**	**46,892,926**	**8.7**	**12**	**$ 0.013**	**$ 0.027**
Industrial									
Custom Efficiency[1]	223	projects	8,778,125	17,172,176	71,580,075	9.5	12	0.014	0.027
Sector Total			**$ 8,778,125**	**$17,172,176**	**71,580,075**	**9.5**	**12**	**$ 0.014**	**$ 0.027**

Appendix 3. 2010 DSM program activity (continued)

Program	Participants	Total Costs		Savings		Measure Life	Nominal Levelized Costs[a]	
		Utility[b]	Resource[c]	Annual Energy (kWh)	Peak Demand[d] (MW)		Utility ($/kWh)	Total Resource ($/kWh)
Irrigation								
Irrigation Efficiency Rewards[2]	753 projects	2,200,814	6,968,598	10,968,430	3.3	8	0.030	0.096
Sector Total		**$ 2,200,814**	**$ 6,968,598**	**10,968,430**	**3.3**	**8**	**$ 0.030**	**$ 0.096**
Market Transformation								
Northwest Energy Efficiency Alliance[3]		$ 2,391,217	$ 2,391,217	15,334,073				
Other Programs and Activities								
Residential								
Residential Energy Efficiency Education Initiative		$ 222,092	$ 222,092					
Commercial								
Commercial Education Initiative		68,765	68,765					
Other								
Energy Efficiency Direct Program Overhead		117,874	117,874				n/a	n/a
Local Energy Efficiency Funds	1 project	251	251					
Total Program Direct Expense		**$ 44,643,541**	**$69,162,332**	**187,626,344**	**357.7**			
Indirect Program Expense		1,189,310						
Total DSM Expense		**$ 45,832,851**						

[a] Levelized Costs are based on financial inputs from Idaho Power's 2009 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 is the total expenditures for a DSM program from the point of view of Idaho Power and its customers.

[d] Summer Peak Demand is reported where program MW reduction is documented. Demand response program reductions are reported with 13% peak loss assumptions Demand Response reduction is non-coincident.

[1] Custom Efficiency savings includes 20 Green Motors Rewsindparticipants totaling 55,126 kWh of annual savings not counted in project totals.

[2] Irrigation Efficiency includes 36 Green Motors participants totaling 187,965 kWh of annual savings not counted in project totals.

[3] Savings are preliminary estimates provided by NEEA.

Appendix 4. DSM expense and performance 2002–2010

Program/Year	Participants	Total Costs		Savings and Demand Reduction				Levilized Costs [a]		Program Life Benefit/Cost Ratios[b]	
		Utility[c]	Resource[d]	Annual Energy (kWh)	Average Energy[e] (aMW)	Peak Demand[f] (MW)	Measure Life (Years)	Total Utility ($/kWh)	Total Resource ($/kWh)	Utility	Total Resource
Demand Response											
A/C Cool Credit											
2003	204	$ 275,645	$ 275,645			0.0					
2004	420	287,253	287,253			0.5					
2005	2,369	754,062	754,062			3.1					
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					
Total		**$13,402,500**	**$13,402,500**							**1.11**	**1.11**
FlexPeak Management											
2009	33	528,681	528,681			19.3					
2010	60	1,902,680	1,902,680			47.5					
Total		**$ 2,431,361**	**$ 2,431,361**							**1.14**	**1.14**
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					
Total		**$29,171,244**	**$29,354,664**							**1.43**	**1.37**
Residential Efficiency											
Ductless Heat Pump Pilot											
2009	96	$ 202,004	$ 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		
Total	**200**	**$ 391,235**	**$ 891,164**	**773,180**			**20**	**$ 0.043**	**$ 0.098**	**3.47**	**1.38**

Appendix 4. DSM expense and performance 2002–2010 (continued)

Program/Year	Participants	Total Costs		Savings and Demand Reduction				Levilized Costs[a]		Program Life Benefit/Cost Ratios[b]	
		Utility[c]	Resource[d]	Annual Energy (kWh)	Average Energy[e] (aMW)	Peak Demand[f] (MW)	Measure Life (Years)	Total Utility ($/kWh)	Total Resource ($/kWh)	Utility	Total Resource
Residential Efficiency											
Energy Efficient 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	11,619	243,033	310,643	3,299,654	0.38		7	0.012	0.015		
2003	12,663	314,641	464,059	3,596,150	0.41		7	0.014	0.021		
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		
Total	**2,642,513**	**$ 6,214,162**	**$ 8,082,552**	**77,943,613**			**5**	**$ 0.018**	**$ 0.023**	**4.54**	**3.49**
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	67,616	699,899	0.08		20	0.039	0.039		
2008	1,099	484,379	484,379	883,038	0.10		20	0.045	0.045		
2009	1,266	569,594	569,594	928,875	0.11		20	0.052	0.052		
2010	1,602	762,330	762,330	1,198,655	0.14		20	0.054	0.054		
Total	**8,522**	**$ 3,784,096**	**$ 3,515,340**	**9,215,987**			**20**	**$ 0.035**	**$ 0.032**	**3.06**	**3.06**
ENERGY STAR® Homes Northwest											
2003		13,597	13,597								
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		

Appendix 4. DSM expense and performance 2002–2010 (continued)

Program/Year	Participants	Total Costs: Utility[c]	Total Costs: Resource[d]	Savings and Demand Reduction: Annual Energy (kWh)	Savings and Demand Reduction: Average Energy[e] (aMW)	Peak Demand[f] (MW)	Measure Life (Years)	Levilized Costs[a]: Total Utility ($/kWh)	Levilized Costs[a]: Total Resource ($/kWh)	Program Life Benefit/Cost Ratios[b]: Utility	Program Life Benefit/Cost Ratios[b]: Total Resource
Residential Efficiency											
ENERGY STAR® Homes Northwest											
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		
Total	**2,344**	**$ 2,384,809**	**$ 3,120,758**	**4,116,678**			**25**	**$ 0.045**	**$ 0.059**	**2.68**	**2.05**
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	561,441	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	0.10		20	0.025	0.083		
Total	**929**	**$ 1,785,249**	**$ 2,950,479**	**2,942,362**			**20**	**$ 0.056**	**$ 0.092**	**2.50**	**1.22**
Home Improvement Program											
2008	282	123,454	157,866	317,814	0.04		25	0.029	0.037		
2009	1,188	321,140	550,148	1,338,876	0.15		25	0.019	0.032		
2010	3,537	944,716	2,112,737	3,986,199	0.46		45	0.016	0.035		
Total	**1,470**	**$ 444,594**	**$ 708,014**	**1,656,690**			**45**	**$ 0.018**	**$ 0.028**	**8.66**	**4.39**
Home Products Program											
2007		9,275	9,275								
2008	3,034	250,860	468,056	541,615			15	0.044	0.082		
2009	9,499	511,313	844,811	1,638,038			15	0.031	0.051		
2010	16,322	832,161	1,025,151	1,443,580			15	0.057	0.070		
Total	**28,855**	**$ 1,603,609**	**$ 2,347,293**	**3,623,233**			**15**	**$ 0.044**	**$ 0.064**	**2.45**	**1.67**
Oregon Residential Weatherization											
2002	24	-662	23,971	4,580	0.00		25	0.010	0.389		
2003		-943									
2004	4	1,057	1,057								

Appendix 4. DSM expense and performance 2002–2010 (continued)

Program/Year	Participants	Total Costs: Utility[c]	Total Costs: Resource[d]	Savings and Demand Reduction: Annual Energy (kWh)	Savings and Demand Reduction: Average Energy[e] (aMW)	Peak Demand[f] (MW)	Measure Life (Years)	Levilized Costs[a]: Total Utility ($/kWh)	Levilized Costs[a]: Total Resource ($/kWh)	Program Life Benefit/Cost Ratios[b]: Utility	Program Life Benefit/Cost Ratios[b]: Total Resource
Residential Efficiency											
Oregon Residential Weatherization											
2005	4	$ 612	$ 3,608	7,927	0.00		25	$ 0.006	$ 0.034		
2006		4,126	4,126								
2007	1	3,781	5,589	9,971	0.00		25	0.028	0.042		
2008	3	7,417	28,752	22,196	0.00		25	0.025	0.096		
2009	1	7,644	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		
Total	**38**	**$ 29,083**	**$ 81,789**	**47,901**			**30**	**$ 0.044**	**$ 0.124**	**2.28**	**1.17**
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		
Total	**700**	**$ 408,088**	**$ 1,011,955**	**2,470,593**			**25**	**$ 0.013**	**$ 0.032**	**8.61**	**3.57**
See ya later, refrigerator®											
2009	1,661	305,402	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		
Total	**4,813**	**$ 870,481**	**$ 870,480**	**2,700,538**			**8**	**$ 0.049**	**$ 0.049**	**1.88**	**1.88**
Weatherization Solutions for Eligible Customers											
2008	16	52,807	48,162	71,680	0.01		25	0.055	0.050		
2009	41	162,995	162,995	211,720	0.02		25	0.059	0.059		
2010	47	228,425	288,425	313,309	0.04		25	0.056	0.056		
Total	**104**	**$ 444,227**	**$ 439,582**	**596,708**			**25**	**$ 0.058**	**$ 0.057**	**1.98**	**1.98**

Appendix 4. DSM expense and performance 2002–2010 (continued)

Program/Year	Participants	Total Costs		Savings and Demand Reduction				Levilized Costs[a]		Program Life Benefit/Cost Ratios[b]	
		Utility[c]	Resource[d]	Annual Energy (kWh)	Average Energy[e] (aMW)	Peak Demand[f] (MW)	Measure Life (Years)	Total Utility ($/kWh)	Total Resource ($/kWh)	Utility	Total Resource
Residential Efficiency											
Window A/C Trade Up Pilot											
2003	99	$ 6,687	$ 10,492	14,454	0.00		12	$ 0.051	$ 0.079		
Total	**99**	**$ 6,687**	**$ 10,492**	**14,454**			**12**	**$ 0.005**	**$ 0.082**		
Residential—Weatherization Assistance for Qualified Customers (WAQC)											
WAQC—Idaho											
2002	197	235,048	492,139								
2003	208	228,134	483,369								
2004	269	498,474	859,482	1,271,677	0.15		25	0.029	0.050		
2005	570	1,402,487	1,927,424	3,179,311	0.36		25	0.033	0.045		
2006	540	1,455,373	2,231,086	2,958,024	0.34		25	0.037	0.056		
2007	397	1,292,930	1,757,105	3,296,019	0.38		25	0.029	0.040		
2008	439	1,375,632	1,755,749	4,064,301	0.46		25	0.025	0.032		
2009	427	1,260,922	1,937,578	4,563,832	0.52		25	0.021	0.033		
2010	373	1,207,705	2,814,471	3,452,025	0.39		25	0.027	0.035		
Total	**3,420**	**$ 8,956,705**	**$14,258,403**	**22,785,189**			**25**	**$ 0.030**	**$ 0.048**	**5.24**	**3.59**
WAQC—Oregon											
2002	31	24,773	47,221	68,323	0.01		25	0.027	0.051		
2003	29	22,255	42,335	102,643	0.01		25	0.016	0.031		
2004	17	13,469	25,452	28,436	0.00		25	0.035	0.067		
2005	28	44,348	59,443	94,279	0.01		25	0.035	0.047		
2006											
2007	11	30,694	41,700	42,108	0.00		25	0.054	0.074		
2008	14	43,843	74,048	73,841	0.01		25	0.040	0.068		
2009	10	33,940	46,513	114,982	0.01		25	0.023	0.031		
2010	27	113,427	113,427	289,627	0.03		25	0.030	0.025		
Total	**167**	**$213,321**	**$ 336,712**	**524,612**			**25**	**$ 0.031**	**$ 0.050**	**4.12**	**3.00**
WAQC—BPA Supplemental											
2002	75	55,966	118,255	311,347	0.04		25	0.013	0.028		
2003	57	49,895	106,915	223,591	0.03		25	0.017	0.036		

Appendix 4. DSM expense and performance 2002–2010 (continued)

Program/Year	Participants	Total Costs		Savings and Demand Reduction				Levilized Costs[a]		Program Life Benefit/Cost Ratios[b]	
		Utility[c]	Resource[d]	Annual Energy (kWh)	Average Energy[e] (aMW)	Peak Demand[f] (MW)	Measure Life (Years)	Total Utility ($/kWh)	Total Resource ($/kWh)	Utility	Total Resource
Residential—Weatherization Assistance for Qualified Customers (WAQC)											
WAQC—BPA Supplemental											
2004	40	$ 69,409	$ 105,021	125,919	0.01		25	$ 0.041	$ 0.062		
Total	**172**	**$ 175,270**	**$ 330,191**	**660,857**			**25**	**$ 0.020**	**$ 0.038**		
Commercial											
Air Care Plus Pilot											
2003	4	$ 5,764	$ 9,061	33,976	0.00		10	$ 0.021	$ 0.033		
2004		344	$344								
Total	**4**	**$ 6,108**	**$ 9,405**	**33,976**			**10**	**$ 0.023**	**$ 0.035**		
Building Efficiency											
2004		28,821	28,821								
2005	12	194,066	233,149	494,239	0.06	0.2	12	0.043	0.052		
2006	40	374,008	463,770	704,541	0.08	0.3	12	0.058	0.072		
2007	22	669,032	130,591	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	1,327,128	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		
Total	**276**	**$ 5,157,747**	**$ 8,197,104**	**27,579,888**			**12**	**$ 0.021**	**$ 0.034**	**4.62**	**2.69**
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		
Total	**3,529**	**$7,061,079**	**$22,086,718**	**66,283,658**			**12**	**$ 0.012**	**$ 0.038**	**7.93**	**2.94**
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		
Total	**46**	**$ 62,712**	**$ 145,982**	**650,066**			**10**	**$ 0.020**	**$ 0.047**	**3.63**	**1.87**

Appendix 4. DSM expense and performance 2002–2010 (continued)

Program/Year	Participants	Total Costs		Savings and Demand Reduction				Levilized Costs[a]		Program Life Benefit/Cost Ratios[b]	
		Utility[c]	Resource[d]	Annual Energy (kWh)	Average Energy[e] (aMW)	Peak Demand[f] (MW)	Measure Life (Years)	Total Utility ($/kWh)	Total Resource ($/kWh)	Utility	Total Resource
Commercial											
Oregon Commercial Audits											
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								
Total	**128**	**$ 38,470**	**$ 42,470**								
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**	**$ 89,858**	**223,368**			**12**	**$ 0.012**	**$ 0.046**		
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		
Total	**570**	**$24,914,034**	**$59,407,144**	**225,703,208**			**12**	**$ 0.013**	**$ 0.030**	**7.85**	**3.29**
Irrigation											
Irrigation Efficiency											
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		

Appendix 4. DSM expense and performance 2002–2010 (continued)

Program/Year	Participants	Total Costs		Savings and Demand Reduction				Levilized Costs[a]		Program Life Benefit/Cost Ratios[b]	
		Utility[c]	Resource[d]	Annual Energy (kWh)	Average Energy[e] (aMW)	Peak Demand[f] (MW)	Measure Life (Years)	Total Utility ($/kWh)	Total Resource ($/kWh)	Utility	Total Resource
Irrigation											
Irrigation Efficiency											
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		
Total	**4,049**	**$11,692,468**	**$37,821,084**	**67,015,012**			**8**	**$ 0.026**	**$ 0.085**	**5.22**	**1.61**
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								
Total		**$ 297,070**	**$ 297,070**								
Distribution Efficiency											
2005		21,552	43,969								
2006		24,306	24,306								
2007		8,987	8,987								

Appendix 4. DSM expense and performance 2002–2010 (continued)

Program/Year	Participants	Total Costs		Savings and Demand Reduction				Levilized Costs[a]		Program Life Benefit/Cost Ratios[b]	
		Utility[c]	Resource[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											
Distribution Efficiency											
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								
Total		**$ 509,651**	**$ 509,651**								
Other C&RD and CRC BPA											
2002		55,722	55,722								
2003		67,012	67,012								
2004		108,191	108,191								
2005		101,177	101,177								
2006		124,956	124,956								
2007		31,645	31,645								
2008		6,950	6,950								
Total		**$ 495,654**	**$ 495,654**								
Residential Energy Efficiency 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								
Total		**$ 630,887**	**$ 630,887**								
Solar 4R Schools											
2009		42,522	45,522								
Total		**$ 42,522**	**$ 45,522**								

Appendix 4. DSM expense and performance 2002–2010 (continued)

Program/Year	Participants	Total Costs		Savings and Demand Reduction				Levilized Costs[a]		Program Life Benefit/Cost Ratios[b]	
		Utility[c]	Resource[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											
Local Energy Efficiency Funds											
2003	56	$ 5,100	$ 5,100								
2004		23,449	23,449								
2005	2	14,896	26,756	78,000	0.01		10	$0.024	$0.042		
2006	480	3,459	3,459	19,027	0.00		7	$0.009	$0.009		
2007	1	7,520	7,520	9,000	0.00		7	$0.135	$0.135		
2008	2	22,714	60,100	115,931	0.01		15	$0.019	$0.049		
2009	1	5,870	4,274	10,340	0.00		12	$0.064	$0.047		
2010	1	251	251		0.00			n/a	n/a		
Total	**543**	**$ 83,259**	**$ 130,909**	**232,298**			**10**	**$0.046**	**$0.072**	**n/a**	**n/a**
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	21,024,729	2.40						
2009		968,263	968,263	10,702,998	1.22						
2010		2,391,217	2,391,217	15,334,073	1.75						
Total		**$10,438,170**	**$ 10,438,170**	**148,929,041**							
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		**2,566,229**	**3,125,573**	**18,654,343**	**2.13**	**0.0**					
2004		**3,827,212**	**4,860,912**	**19,202,780**	**2.19**	**6.6**					
2005		**6,523,349**	**10,383,578**	**37,978,035**	**4.34**	**44.3**					

Appendix 4. DSM expense and performance 2002–2010 (continued)

Program/Year	Participants	Total Costs		Savings and Demand Reduction				Levilized Costs[a]		Program Life Benefit/Cost Ratios[b]	
		Utility[c]	Resource[d]	Annual Energy (kWh)	Average Energy[e] (aMW)	Peak Demand[f] (MW)	Measure Life (Years)	Total Utility ($/kWh)	Total Resource ($/kWh)	Utility	Total Resource
Annual Totals											
2006		$ 11,174,181	$ 20,950,111	67,026,303	7.65	44.4					
2007		14,896,816	26,182,014	91,145,357	10.40	58.5					
2008		20,213,215	44,771,182	128,508,579	14.61	74.9					
2009		33,821,062	53,090,852	143,146,364	16.15	236.6					
2010		44,643,541	69,162,333	187,626,344	21.23	357.7					
Total Direct Program		$139,598,124	$ 234,893,146	710,079,205							
Indirect Program Expense											
DSM Overhead and Other Indirect											
2002		$ 128,855									
2003		-41,543									
2004		142,334									
2005		177,624									
2006		309,832									
2007		765,561									
2008		980,305									
2009		1,025,704									
2010		1,189,175									
Total		$ 4,677,850									
Total Expense											
2002		$ 2,061,375									
2003		2,524,686									
2004		3,969,549									
2005		6,700,973									
2006		11,484,013									
2007		15,662,377									
2008		21,193,520									
2009		34,846,766									
2010		45,832,851									
Total 2002–2010		$63,596,492									

End notes:

[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 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% peak line losses and is non-coincident.

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

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

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

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

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

[6] 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.

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

[8] Savings were adjusted by NEEA in 2010.

[9] Savings are preliminary estimates provided by NEEA.

Appendix 5. 2010 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	30,482 homes	$ 1,928,447	38.6	321 homes	$ 74,099	0.4
Irrigation Peak Rewards	2,005 service points	13,144,261	245.5	33 service points	186,565	4.2
FlexPeak Management	56 sites	1,807,527	36.1	4 sites	95,153	11.4
Total		**$16,880,235**	**320.2**		**$ 355,817**	**16.0**
Energy Efficiency			**(kWh)**			**(kWh)**
Residential						
Ductless Heat Pump Pilot	101 homes	$ 181,969	353,500	3 homes	$ 7,262	10,500
Energy Efficient Lighting	1,171,010 bulbs	2,442,931	27,618,937	19,129 bulbs	58,347	463,800
Energy House Calls	1,525 homes	724,895	1,157,871	77 homes	37,435	40,784
ENERGY STAR® Homes Northwest	630 homes	369,504	883,260	0 homes	6,101	0
Heating & Cooling Efficiency Program	212 homes	314,963	1,081,875	5 homes	12,706	22,622
Home Improvement Program	3,537 homes	944,716	3,986,199	0 homes	0	0
Home Products Program	16,061 appliances/fixtures	813,171	1,418,905	261 appliances/fixtures	18,990	24,675
Oregon Residential Weatherization	0 home	0	0	1 home	6,050	320
Rebate Advantage	30 homes	34,283	145,578	5 homes	5,119	19,316
See ya later, refrigerator®	3,070 refrigerators/freezers	548,872	1,527,190	82 refrigerators/freezers	16,207	40,546
Weatherization Assistance for Qualified Customers	373 homes/non-profits	1,205,446	3,452,025	27 homes/non-profits	115,686	289,627
Weatherization Solutions for Eligible Customers	47 homes	226,119	313,309	0 homes	2,306	0
Total		**$ 7,806,869**	**41,938,649**		**$ 286,209**	**912,190**
Commercial						
Building Efficiency	6 projects	1,466,256	10,552,135	2 projects	43,426	267,463
Easy Upgrades	1,487 projects	3,862,653	35,200,511	48 projects	111,757	623,952
Holiday Lighting	25 projects	45,816	248,865	0 projects	316	0
Oregon Commercial Audits	0 audits	0	0	22 audits	5,049	0
Total		**$ 5,374,725**	**46,001,511**		**$ 160,548**	**891,415**
Industrial						
Custom Efficiency	204 projects	8,060,252	65,148,471	19 projects	717,873	6,431,604
Total		**$ 8,060,252**	**65,148,471**		**$ 717,873**	**6,431,604**

Appendix 5. 2010 DSM program activity by state jurisdiction (continued)

Program	Idaho Participants	Idaho Utility Costs	Idaho Demand Reduction/ Annual Energy Savings (kWh)	Oregon Participants	Oregon Utility Costs	Oregon Demand Reduction/ Annual Energy Savings (kWh)
Energy Efficiency			(kWh)			(kWh)
Irrigation						
Irrigation Efficiency Rewards	728 projects	$ 2,089,225	10,575,018	25 projects	$ 111,589	393,412
Total		**$ 2,089,225**	**10,575,018**		**$ 111,589**	**393,412**
Market Transformation						
Northwest Energy Efficiency Alliance [1]		$ 2,271,656	14,567,370		$ 119,561	766,704
Other Programs and Activities						
Residential						
Residential Energy Efficiency Education Initiative		211,695			$ 10,397	
Commercial						
Commercial Education Initiative		65,327			3,438	
Other						
Energy Efficiency Direct Program Overhead		109,545			8,329	
Local Energy Efficiency Funds	1 project	238		0 projects	13	
Total Direct Program Expense		**$42,869,767**			**$ 1,773,774**	
Indirect Program Expense		1,129,390			59,920	
Total Annual Savings			**178,231,019**			**9,395,325**
Total DSM Expense		**$43,999,157**			**$ 1,833,694**	

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