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**BEFORE THE
IDAHO PUBLIC UTILITIES COMMISSION**

CASE NO. IPC-E-10-09

IDAHO POWER COMPANY

ATTACHMENT NO. 3

**DEMAND-SIDE MANAGEMENT
2009 ANNUAL REPORT**

Demand-Side Management 2009 Annual Report

March 15, 2010

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LIST OF SUPPLEMENTS

Supplement 1: Cost-Effectiveness

Supplement 2: Evaluation

NEEA Market Effects Evaluations (included on compact disc with Supplement 2)

GLOSSARY OF ACRONYMS

aMW—Average Megawatt
A/C—Air Conditioning
ASHRAE—American Society of Heating, Refrigerating, and Air-Conditioning Engineers
AMI—Advanced Metering Infrastructure
B/C—Benefit Cost
BCA—Building Contractors Association
BCASWI—Building Contractors Association of Southwestern Idaho, Inc.
BOP—Builder Option Package
BOMA—Building Owners and Managers Association International
BPA—Bonneville Power Administration
BSU—Boise State University
CAP—Community Action Partnership
CAPAI—Community Action Partnership Association of Idaho, Inc.
CBSA—Commercial Building Stock Assessment
CD—Compact Disc
CFM—Cubic Feet per Minute
CEE—Consortium for Energy Efficiency Inc.
CEI—Continuous Energy Improvement
CEL—Cost-Effective Limit
CFL—Compact Fluorescent Lamp/Light
CHQ—Corporate Headquarters (Idaho Power)
CIS—Customer Information System
CO₂—Carbon Dioxide
COP—Coefficient of Performance
CR—Customer Representative
CSR—Customer Service Representative
CVR—Conservation Voltage Reduction
DEER—Database for Energy Efficiency Resources
DEI—Distribution Efficiency Initiative
DHP—Ductless Heat Pump
DOE—U.S. Department of Energy
DSM—Demand-Side Management
EEAG—Energy Efficiency Advisory Group

EEBA—Energy and Environmental Building Association
ETO—Energy Trust of Oregon
F—Fahrenheit
FAQs—Frequently Asked Questions
FCA—Fixed-Cost Adjustment
GMPG—Green Motors Practice Group
HEM-LLC—Home Energy Management-LLC
H&CE—Heating & Cooling Efficiency Program
HO—High Output
hp—Horsepower
HPS—Home Performance Specialist
HSPF—Heating Seasonal Performance Factor
HVAC—Heating, Ventilation, and Air Conditioning
IDL—Integrated Design Lab
IEA—Industrial Efficiency Alliance
IECC—International Energy Conservation Code
IOER—Idaho Office of Energy Resources
IPUC—Idaho Public Utilities Commission
IRP—Integrated Resource Plan
kW—Kilowatt
kWh—Kilowatt-hour
LDL—Lighting Design Lab
LED—Light-Emitting Diode
LEED—Leadership in Energy and Environmental Design
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
ODOE—Oregon Department of Energy
OPUC—Public Utility Commission of Oregon
OSV—On-Site Verification
PCT—Participant Cost Test
PECI—Portland Energy Conservation, Inc.
PLC—Power Line Carrier
PNUCC—Pacific Northwest Utilities Conference Committee
PTAC—Packaged Terminal Air Conditioner
PTCS—Performance Tested Comfort System
PTHP—Packaged Terminal Heat Pump
QA—Quality Assurance
RAP—Resource Action Programs
RFP—Request for Proposal
RTF—Regional Technical Forum
Rider—Idaho Energy Efficiency Rider and Oregon Energy Efficiency Rider
SEE—Students for Energy Efficiency
SEER—Seasonal Energy Efficiency Rating
SIR—Savings Investment Ratio
SO₂—Sulfur Dioxide
SRVBCA—Snake River Valley Building Contractors Association
TRC—Total Resource Cost
UC—Utility Cost
VHO—Very High Output
WAQC—Weatherization Assistance for Qualified Customers

EXECUTIVE SUMMARY

Idaho Power and its customers benefited from another year of increased energy and demand savings as well as enhanced activities in energy efficiency education and customer outreach. Demand-Side Management (DSM) activities throughout 2009 focused not only on increasing savings and overall program participation, but improving customer satisfaction and energy efficiency awareness. Through program innovation and new technologies, the company's DSM portfolio of programs and energy savings opportunities expanded.

In 2009, the 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 has continued to grow, with a 44 percent increase in positive customer perception from 2003 to 2009.

Overall annual energy savings from Idaho Power's energy efficiency activities increased 7.8 percent in 2009 to 148,256 megawatt-hours (MWh), including savings from the Northwest Energy Efficiency Alliance (NEEA). This is more than enough energy to supply over 11,000 average homes in Idaho Power's service area. Demand reduction for Idaho Power's demand response programs more than tripled, from 61 megawatts (MW) in 2008 to 218 MW in 2009. This is larger than the capacity of any of Idaho Power's peaker plants near Mountain Home. The savings exclusively from Idaho Power's energy efficiency programs in 2009 increased by 23 percent, while the expenditures increased by 28 percent. Total expenditures on DSM-related activities increased from approximately \$21 million in 2008 to \$35 million in 2009.

The pursuit of all cost-effective energy efficiency is a primary objective for Idaho Power. Energy efficiency provides economic, operational, and environmental benefits to the company and its customers. Idaho Power achieves energy savings and demand reduction through energy efficiency programs, demand response programs, market transformation activities, and other activities. Enhancement of programs and offerings helps ensure that customers have opportunities to participate in programs and manage their energy usage.

Program offerings enhanced in 2009 included the expansion and modification of the Irrigation Peak Rewards program and the addition of the FlexPeak Management demand response program. A new program, See Ya Later Refrigerator, was launched. Idaho Power participated with NEEA in the Ductless Heat Pump (DHP) Pilot and the Consumer Electronics Initiative. The company continued expanding its Smart Meter Project in 2009 by installing Advanced Meter Infrastructure (AMI), which augments Idaho Power's energy efficiency and demand response efforts.

The *Demand-Side Management 2009 Annual Report* provides a review of the company's DSM activities and finances throughout 2009, outlines its plans for DSM activities, and satisfies the reporting requirements set out in the Idaho Public Utilities Commission's (IPUC) Order Nos. 29062 and 29419.

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INTRODUCTION

Idaho Power's *Demand-Side Management (DSM) 2009 Annual Report* provides a review of the financial and operational performance of Idaho Power's DSM activities and initiatives for the 2009 calendar year. These programs provide a wide range of opportunities for all customer classes to become informed about energy-use characteristics and reduce their energy consumption.

Idaho Power's two main objectives for DSM programs are to achieve all cost-effective energy efficiency resources in order to meet the electrical system's energy and demand needs and to provide all Idaho Power customers with programs and information to help them manage their energy usage. The company achieves these objectives through the development and implementation of programs with specific energy and demand savings, and through outreach and education endeavors. 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 2009 was 132,443 MWh, a 23 percent increase over the 107,484 MWh energy savings in 2008. Demand reduction for the demand response programs substantially increased in 2009. Combined, the Irrigation Peak Rewards, FlexPeak Management, and A/C Cool Credit programs resulted in an estimated summer peak reduction of 218 MW, which is more than three times the 61 MW reduction achieved in 2008.

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 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.

Figures 1–3 show the historical growth in expenditures and energy savings from 2002 to the present.

Figure 1 DSM Expense History 2002–2009 (Millions of dollars)

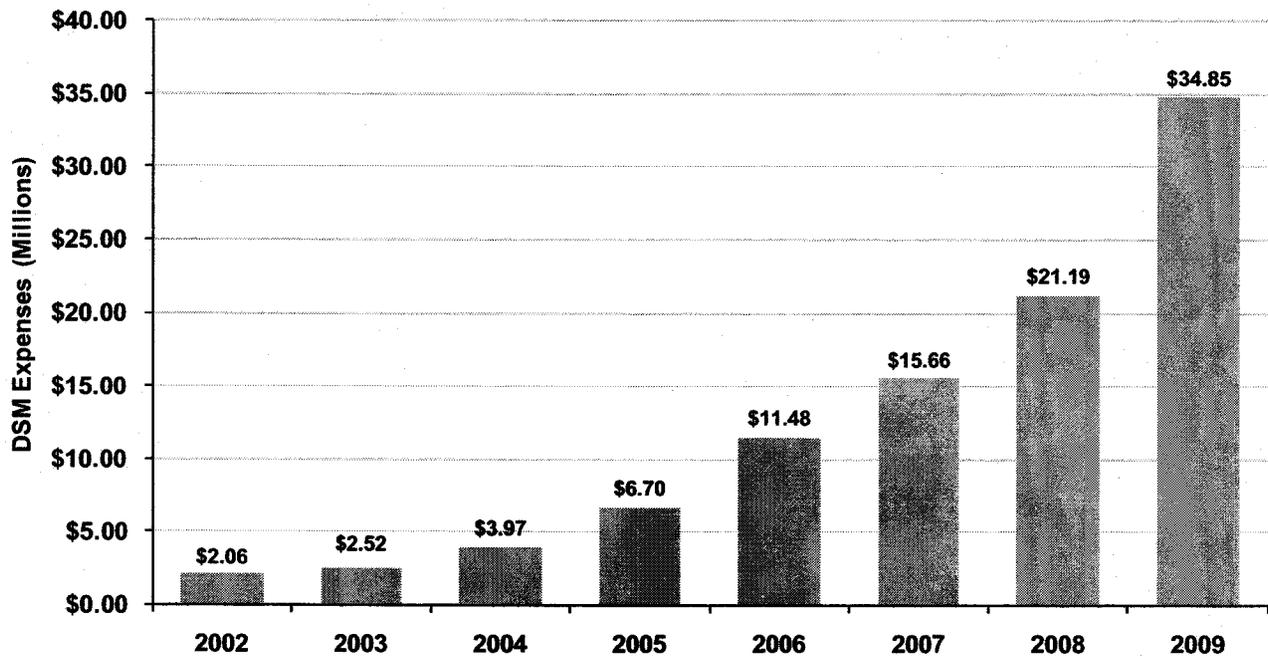


Figure 2. Annual Demand Response Reduction 2004–2009 (MW)

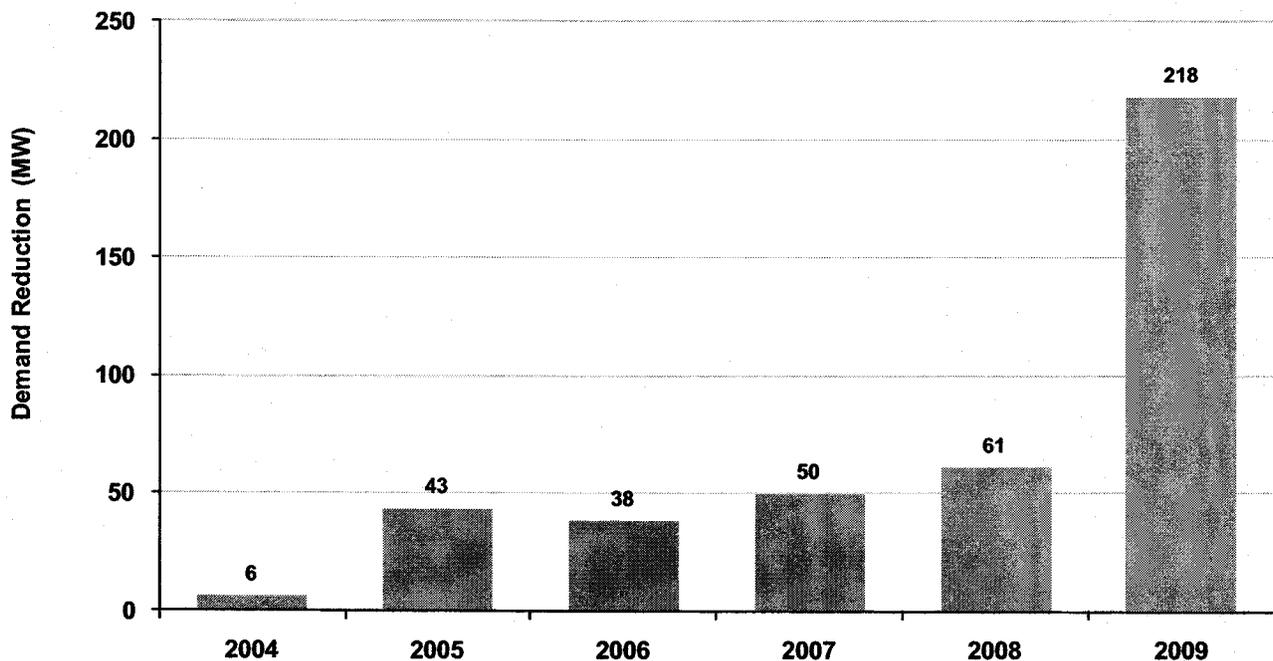
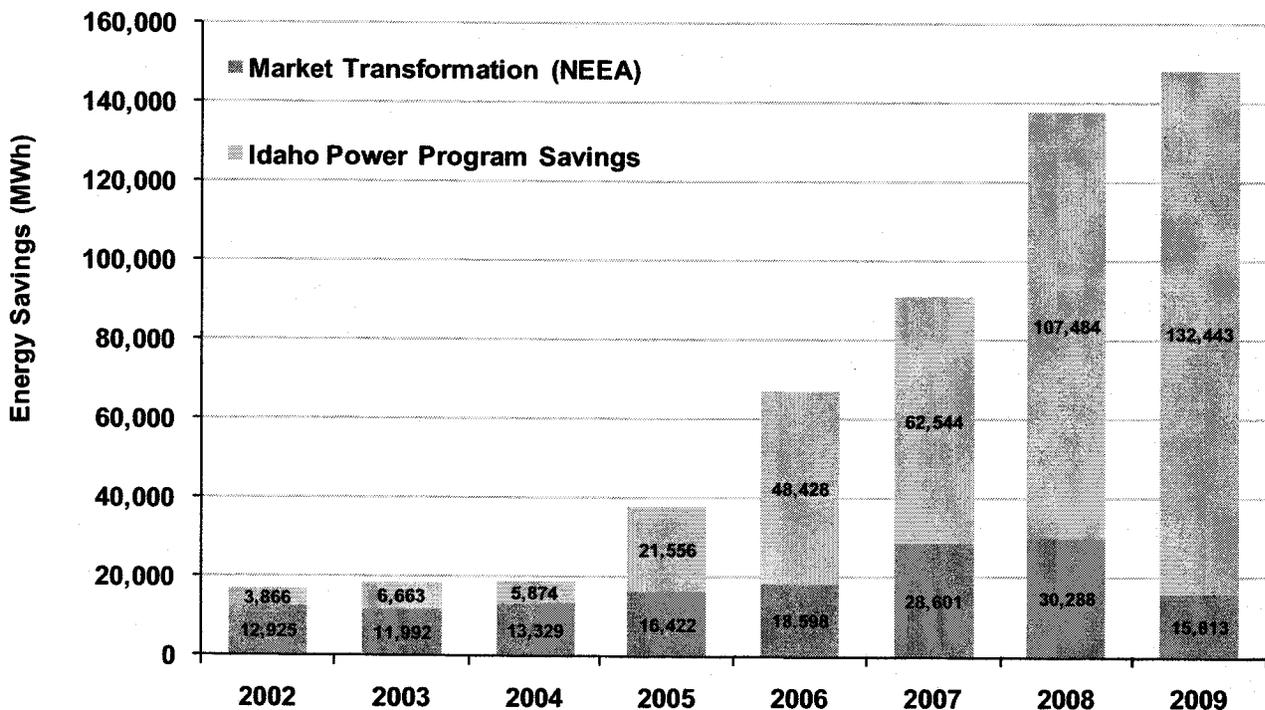


Figure 3. Annual Energy Savings 2002–2009 (MWh)



Note: 2009 market transformation (NEEA) savings are preliminary.

Demand Response Programs

Demand response programs are designed to reduce participant electricity loads at specific times of the day and year when electricity is normally in short supply. The need for these programs continues to increase. Idaho Power set its all-time system peak of 3,214 MW on Monday, June 30, 2008, at 3:00 p.m. 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 2009 was 3,031 MW set on Wednesday, July 22 at 8:00 p.m.

The 2009 *Integrated Resource Plan* (IRP) load forecast projects peak hour load will grow at an average annual rate of 53 MW, or 1.5 percent, and average system load will grow at 13 average megawatt (aMW), or 0.7 percent, over the 20-year planning period. The goal of Idaho Power's demand response programs is to reduce the system summer peak demand, thus reducing the need for acquiring higher cost, supply-side alternatives, such as gas turbine generation. Demand reduction through demand response programs is achieved using load control devices installed on customer equipment or manual load reduction provided by the customer.

The measure of program performance is the number of MW of reduced electrical demand during peak periods. In 2009, Idaho Power offered three demand response programs, FlexPeak Management for commercial/industrial customers, the A/C Cool Credit program for residential customers, and the Irrigation Peak Rewards program for irrigation customers. The FlexPeak Management program was new in 2009. The Irrigation Peak Rewards program was changed in 2009 to enable the load reduction to be dispatchable, which increased the participation and load reduction potential of the program.

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 applicable 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 impact the design of energy usage in products, services, and practices that affect electrical power consumption. Idaho Power achieves market transformation savings primarily through its participation in 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 2009, and energy savings.

Table 1. 2009 DSM, Sectors, Programs, Operational Type, and Energy Savings

Program by Sector	Operational Type	State	Savings
Residential			
A/C Cool Credit	Demand Response	ID/OR	38.5 MW
Ductless Heat Pump Pilot	Energy Efficiency	ID/OR	409 MWh
Energy Efficient Lighting	Energy Efficiency	ID/OR	13,411 MWh
Energy House Calls	Energy Efficiency	ID/OR	929 MWh
ENERGY STAR® Homes Northwest	Energy Efficiency	ID/OR	706 MWh
Heating & Cooling Efficiency Program	Energy Efficiency	ID/OR	1,275 MWh
Home Improvement Program	Energy Efficiency	ID	1,339 MWh
Home Products Program	Energy Efficiency	ID/OR	1,638 MWh
Oregon Residential Weatherization	Energy Efficiency	OR	3 MWh
Rebate Advantage	Energy Efficiency	ID/OR	247 MWh
Residential Energy Efficiency Education Initiative	Other Programs and Activities	ID/OR	n/a
See Ya Later Refrigerator	Energy Efficiency	ID/OR	1,133 MWh
Weatherization Assistance for Qualified Customers	Energy Efficiency	ID/OR	4,679 MWh
Weatherization Solutions for Eligible Customers	Energy Efficiency	ID	212 MWh
Commercial/Industrial			
Building Efficiency	Energy Efficiency	ID/OR	6,146 MWh
Commercial Education Initiative	Other Programs and Activities	ID/OR	n/a
Easy Upgrades	Energy Efficiency	ID/OR	35,172 MWh
FlexPeak Management	Demand Response	ID	19.3 MW
Holiday Lighting Program	Energy Efficiency	ID/OR	142 MWh
Oregon Commercial Audits	Energy Efficiency	OR	n/a
Custom Efficiency	Energy Efficiency	ID/OR	51,836 MWh
Irrigation			
Irrigation Efficiency Rewards	Energy Efficiency	ID/OR	13,158 MWh
Irrigation Peak Rewards	Demand Response	ID/OR	160.2 MW
All Sectors			
Northwest Energy Efficiency Alliance	Market Transformation	ID/OR	15,813 MWh

Program Performance

In 2009, energy savings increased, as compared to 2008, for the residential, commercial, industrial, and irrigation sectors by 19 percent, 26 percent, 26 percent, and 12 percent, respectively. The residential sector savings increased to 25,980 MWh, the commercial sector savings increased to 41,460 MWh, the industrial sector increased to 51,836 MWh, and the irrigation sector increased to 13,158 MWh. Additional energy savings continue to be realized through market transformation partnership activities with the NEEA.

Customer participation increased in nearly every existing program during the year. The number of projects completed under the Easy Upgrades program increased from 685 projects in 2008 to 1,224 projects in 2009. Projects completed under the Building Efficiency program increased from 60 to 72. As a result of the downturn in the housing market in 2009, the number of homes incented in

the Rebate Advantage program decreased. However, participation in the A/C Cool Credit program increased by 50 percent to approximately 30,391 participants.

A few individual programs were big contributors to the overall energy savings. The Custom Efficiency program accounted for 39 percent of Idaho Power's energy savings from programs, resulting in 51,836 MWh of savings. The Easy Upgrades program in the commercial sector provided 27 percent, or 35,172 MWh, energy savings. In the residential sector, the Energy Efficient Lighting program saved 13,411 MWh, accounting for 10 percent of the overall energy savings from Idaho Power's energy efficiency programs.

Table 2 shows the 2009 annual energy savings, percent of energy usage, number of customers, and aMW savings associated with each of the DSM program categories. The table also provides a comparison of the 2009 contribution of each sector in terms of weather adjusted 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. 2009 Program Sector Summary and Energy Usage

	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	\$5,465,842	25,980	3.0	39.6	5,294,557	38.0%	406,631
Commercial	\$4,707,295	41,460	4.7	26.7	3,867,536	27.7%	64,349
Industrial.....	\$6,061,467	51,836	5.9	6.7	3,136,405	22.5%	125
Irrigation	\$2,293,896	13,158	1.5	163.6	1,649,758	11.8%	18,818
Market Transformation	\$968,263	15,813	1.8	n/a			
Other Programs and Activities	\$5,870	10	0.0	n/a			
Total.....	\$19,502,632	148,256	16.7	236.6	13,948,256	100.0%	489,923

^(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.

2009 Activities

During 2009, Idaho Power continued to expand the programs that began with the 2004 and 2006 IRPs. In addition to the DSM programs identified in the IRP, Idaho Power continued to offer other energy efficiency programs that began prior to the 2004 IRP. In 2009, Idaho Power implemented two new residential energy efficiency programs. The Attic Insulation Pilot was renamed Home Improvement Program, and the Home Weatherization Pilot became the Weatherization Solutions for Eligible Customers program. The See Ya Later Refrigerator program was added. Additionally the company participated in two new projects in conjunction with the NEEA, the DHP Pilot, and the Consumer Electronics Initiative included in the Home Products Program. Idaho Power also initiated a new demand response program for commercial and industrial customers, the FlexPeak Management program, and expanded the Irrigation Peak Rewards program.

In December 2009, Idaho Power filed the 2009 IRP with the IPUC and the Public Utility Commission of Oregon (OPUC). Both energy efficiency and demand response program efforts were considered increasingly important resources in the 2009 IRP. Next to distributed generation, the company's demand response programs are the least-cost resource for meeting summer peak loads over the 20-year IRP

planning period. Demand response program efforts are forecasted to provide 367 MW of peak reduction by summer 2012. New energy efficiency programs are also forecasted to have a significant impact on system loads over the planning period, with an additional 127 aMW of energy from new program efforts at a levelized cost per kWh ranging between 3 cents to just under 7 cents. The combined forecasted system reduction for all energy efficiency programs, which includes currently operating programs and new, planned commitments, is estimated at just under 54 aMW by 2012 and will exceed a cumulative 380 aMW of average energy reduction by the end of the 20-year planning period.

From late 2008 through the end of 2009, Idaho Power was involved in several regulatory activities concerning the prudence of DSM expenditures. These activities were based in Idaho and were primarily concerned with the expenditures of funds collected through Idaho Rate Schedule 91, the Energy Efficiency Rider (Rider). In Idaho Power's 2008 rate case, Case No. IPC-E-08-10, Idaho Power requested that the IPUC find that its 2002–2007 expenditures on DSM programs and initiatives, funded by the Rider, were prudently incurred. Total Rider expenditures during the period were approximately \$33 million. The IPUC deferred a determination on the prudence of the expenditures pending additional information to evaluate the programs' effectiveness. In February 2009, Idaho Power and the IPUC staff filed a stipulation in that case, establishing the prudence of a portion of the Rider funds the company spent during the 6-year period. The IPUC subsequently issued Order No. 30740 on March 6, 2009, finding that "approximately \$18.3 million in energy efficiency expenditures for 2002–2007 as prudent to be just, reasonable, and in the public interest." The stipulation approved by the IPUC also required Idaho Power to file a pleading with the commission seeking a prudence determination for the balance of Rider funds spent during 2002–2007.

On April 1, 2009, Idaho Power filed an application in Case No. IPC-E-09-09, requesting the IPUC find the remaining \$14,657,971 in 2002–2007 Rider expenditures to be prudently incurred expenses. Following the filing of the company's application, the IPUC staff and Idaho Power continued to discuss ways to evaluate the effectiveness of the company's DSM programs. On October 5, 2009, the IPUC staff hosted a DSM evaluation workshop, facilitated by an evaluation consultant retained by the commission, to discuss appropriate levels of objective and transparent evaluation of DSM programs by Idaho utility companies. As a result of the workshop and follow up discussions, Idaho Power and the IPUC staff agreed to terms for a comprehensive utility annual DSM report, as set forth in a Memorandum of Understanding (MOU). The MOU provides terms for Idaho Power to manage, plan, evaluate, and report its DSM activities to the IPUC. In addition, IPUC staff and the company signed a stipulation agreeing that the remaining balance of \$14,657,971 Rider funds spent during 2002–2007 were prudent expenditures. On January 25, 2010, Idaho Power filed a motion to approve the stipulation. In this filing, Idaho Power specifically requested that the IPUC confirm that the \$14,657,971 in Rider expenditures the company made between 2002 and 2007 were considered prudent and that the IPUC provide feedback if it so chooses regarding the DSM evaluations and prudence determinations discussed in the MOU. Throughout these proceedings, IPUC staff did not suggest that any of the prior expenditures by Idaho Power were imprudent, only that some programs had not yet been sufficiently evaluated.

A copy of the MOU is included in *Supplement 2: Evaluation*. At the time of publishing this report, an order on Case No. IPC-E-09-09 has not been issued.

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 2009, the EEAG met three times, February 19, June 11, and October 20. Conference calls were held on January 8, January 9, December 16, and December 17. 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 information on DSM issues in general. 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 2009 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.

During 2009, Idaho Power continued its contractual participation in, and funding of NEEA. NEEA's efforts in the northwest impact Idaho Power's customers by encouraging regional market transformation. Idaho Power collaborated with NEEA on the development of the NEEA 2010–2015 business plan. Idaho Power also continues 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. In 2009, Idaho Power participated on the Northwest Energy Efficiency Taskforce (NEET).

Northwest Power and Conservation Council's *Sixth Power Plan*

On February 10, 2010 members of the Northwest Power and Conservation Council (NPCC or the council) adopted the NPCC's 6th regional power plan, the *Sixth Power Plan*. The plan identifies a five-year, regional energy-saving target of 1,200 aMW and calls for 5,900 aMW of cost-effective efficiencies by 2030. Idaho Power along with the Bonneville Power Administration (BPA), NEEA, other Northwest power delivery companies, and interested stakeholders participated in workshops and meetings to help determine what would be included in the plan.

After discussions with the NPCC staff, Idaho Power agreed that a range of achievable energy savings exists, and that 1,100 aMW would be a reasonable lower threshold with an expected case of 1,200 aMW. Idaho Power also agreed that the *Sixth Power Plan* action should include a "regional check-in" with appropriate target adjustments after two years, due to the uncertainty surrounding the achievability of energy-savings potential as laid out in the plan.

In November, Idaho Power submitted comments on the NPCC's *Sixth Power Plan*. Idaho Power's comments included supporting the level of uncertainty that the council included in its planning, and the inclusion of wind integration and transmission in the plan, and reinforced the comments of the Pacific Northwest Utilities Conference Committee (PNUCC) regarding the depiction of future power costs in the plan. Regarding energy efficiency, Idaho Power commended the NPCC and its staff on promoting

aggressive steps toward energy efficiency in the region and described Idaho Power's methods of encouraging energy efficiency and accounting for savings.

Idaho Power has a stated commitment to pursue all cost-effective energy efficiency, even though Idaho Power's methods of achieving its energy efficiency targets may differ from those proposed by the NPCC.

Smart Meter Project

In 2009, Idaho Power began 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 more wisely manage their use of electricity. Customer hourly energy data and monthly demand data will 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 2010, Idaho Power had installed 166,685 residential Smart Meters and 21,931 small commercial Smart Meters as part of the Smart Meter Project. These were primarily installed in the Treasure Valley. In addition to those numbers, about 27,600 Smart Meters have been in service in the Emmett and McCall areas from the 2004 AMI pilot project. To date the company has completed 37 of the approximately 134 substation installations, which is 28 percent of the total to be installed. By the end of 2011, most of Idaho Power's service area will be converted to Smart Meters.

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. Idaho Power, in conjunction with the IPUC and the members of the environmental community, has worked toward creating a financial and regulatory environment supportive of utility DSM resource acquisition. This collaborative effort has succeeded in implementing regulatory mechanisms to address the first two components. Since 2002 in Idaho and 2005 in Oregon, Idaho Power has recovered its DSM program costs through a Rider. In 2009, Idaho Power filed to make permanent a FCA mechanism designed to remove the financial disincentives of DSM implementation. Despite efforts to create a performance-based incentive mechanism, a satisfactory model has not been found that all parties can support. The company will continue to evaluate potential mechanisms to provide performance-based earning opportunities. Idaho Power is optimistic that this effort will lead to a sustained environment supportive of plans to pursue all cost-effective energy efficiency opportunities while balancing its shareowners' financial objectives.

In response to these regulatory mechanisms, Idaho Power has committed to enhancing its efforts toward promoting DSM and energy efficiency in several key areas, including a broad availability of efficiency and load management programs, building-code improvement activity, pursuit of appliance code standards, expansion of DSM programs beyond peak-shaving/load-shifting programs, and third-party verification.

DSM Expenditures and Funding

Funding for DSM programs in 2009 came from several sources. The Idaho and Oregon Rider funds are collected directly from customers on their monthly bills. In June 2009, the Idaho Rider was increased from a rate of 2.5 percent of base rate revenues to 4.75 percent. The Oregon Rider is currently at 1.5 percent of base rate revenues with monthly caps on the residential and irrigation customers' Rider charges. On March 5, 2010, Idaho Power filed with the 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. Energy efficiency and demand response-related expenses not funded through the Rider funds, including costs for administration and overhead, are included as part of Idaho Power's ongoing operation and maintenance costs. Total DSM expenses funded from these sources were slightly under \$35 million in 2009.

Table 3 provides a summary of the 2009 expenses and energy savings by each funding category.

Table 3. 2009 Funding Source and Energy Impact

Funding Source	Expenses	MWh Savings
Idaho Rider	\$31,821,464	139,726
Oregon Rider.....	1,433,866	3,851
BPA	42,485	n/a
Idaho Power Base Rates	1,548,951	4,679
Total.....	34,846,766	148,256

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 risk, environmental, economic, and other considerations in developing a preferred portfolio of future resources that meet the specific energy needs of Idaho Power and its customers. In 2010, 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 2009 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.

In 2010, Idaho Power will collect additional data, improve its data storage systems, enhance its program evaluation, and refine its reporting to satisfy the requirements of the MOU signed by the IPUC and Idaho Power. The company will also develop systems and enhance its market data analysis in order to more effectively market its programs. This will provide more effective target marketing and promote programs more efficiently.

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. In 2009,

Idaho Power developed a comprehensive evaluation plan for its energy efficiency and demand response programs. The 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 needs, evaluation timing, and other relevant regional studies.

The company commenced evaluations for several programs and measures during 2009, including Building Efficiency, Easy Upgrades, ENERGY STAR[®] Homes Northwest, A/C Cool Credit, Irrigation Peak Rewards, and the Home Improvement Program. Idaho Power has several programs scheduled for evaluation in 2010, including Custom Efficiency, Building Efficiency, Easy Upgrades, Irrigation Efficiency Rewards, Home Products, Rebate Advantage, and Energy House Calls.

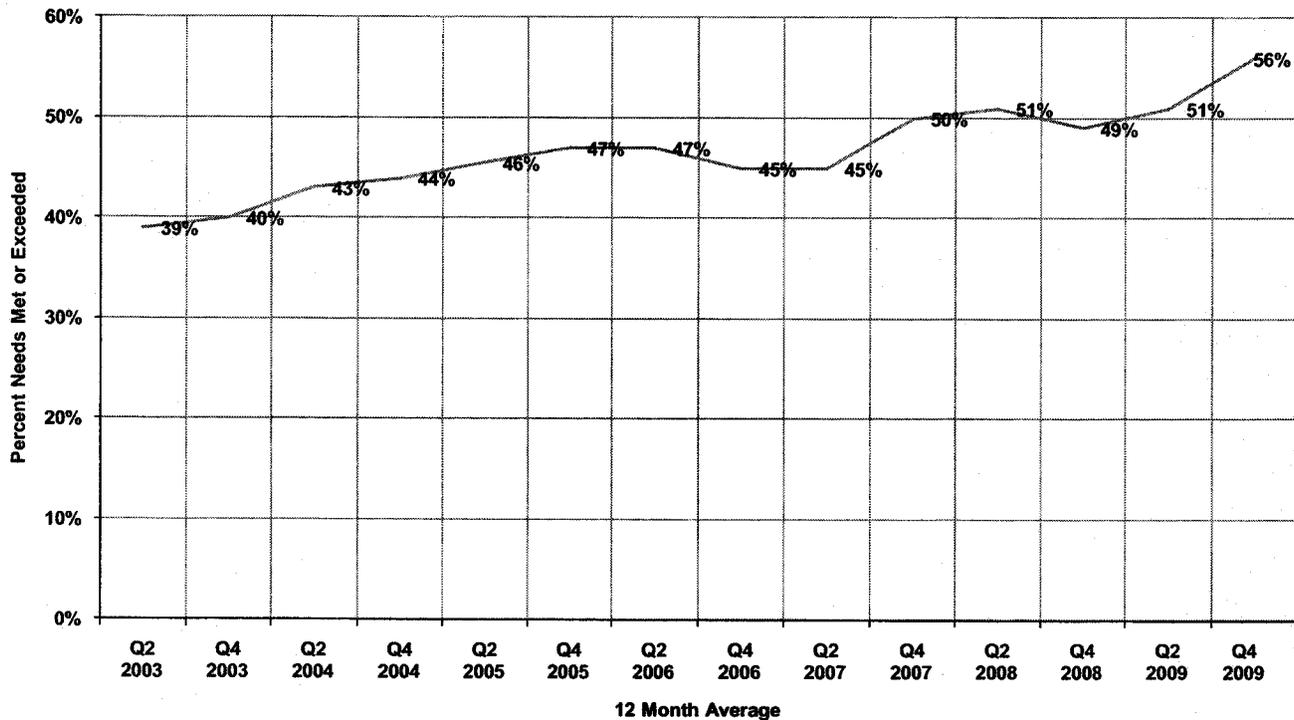
As part of its evaluation efforts, Idaho Power is actively participating in several regional studies to identify and promote emerging technologies that may further enhance opportunities for existing program expansion and new program deployment. Examples include 1) the Distribution Efficiency Initiative (DEI), which is a study managed by NEEA to determine efficient ways to design and operate distribution feeders through voltage regulators; 2) a regional study to evaluate the energy savings potential of DHPs; and 3) research to measure the impacts of light-emitting diode (LED) lighting. Other regional analyses in which Idaho Power actively participated include the Commercial Building Stock Assessment (CBSA) and market progress evaluations.

Customer Satisfaction

Customer satisfaction is a key consideration in Idaho Power's program design, operations, and management. Idaho Power uses surveys, focus groups, stakeholder input, and input from the EEAG and Idaho Power field personnel to assess and monitor customer satisfaction. This information and input aids in the design and modification of programs and assists in program marketing and management throughout the life of each program.

In 2009, the results of Idaho Power's quarterly customer relationship survey showed steady improvement over recent years as the percentage of customers who have a positive perception of Idaho Power's energy efficiency efforts has continued to increase. Customers' positive perception of Idaho Power's energy efficiency efforts increased from 39 percent in early 2003 to 56 percent in late 2009. This represents a 44 percent increase in positive customer perception. Idaho Power continues to expand its customer satisfaction measurement activities, which enable Idaho Power to identify actionable areas for improvement. Figure 4 depicts biannual growth in the number of customers who indicated Idaho Power met or exceeded their needs concerning energy conservation efforts encouraged by Idaho Power.

Figure 4. Percent of Customers Whose Needs are Met or Exceeded by Idaho Power's Energy Efficiency Efforts



Several surveys measured customer satisfaction with programs in 2009. The surveys also provide guidance for program modification, marketing, and evaluation. Survey results are presented in the following program sections of this report: Energy House Calls, Heating & Cooling Efficiency (H&CE) Program, Easy Upgrades, FlexPeak Management, Irrigation Peak Rewards Program, and Residential Energy Efficiency Education Initiative. The Building Efficiency program also conducted a post-occupancy survey in 2009.

An important measure of customer satisfaction is the retention rate of participants in ongoing programs. A review of utility service agreement end dates indicated less than 1 percent of A/C Cool Credit participants canceled enrollment due to dissatisfaction with the program in 2009, while approximately 10 percent of participants left the program because of moving. The Irrigation Peak Rewards and the Irrigation Efficiency Rewards programs have continued with a high level of participation.

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. Customer satisfaction, regarding the Custom Efficiency program, is planned to be assessed in 2010.

Cost-Effectiveness

Idaho Power considers cost-effectiveness of primary importance in the design, implementation, and tracking of energy efficiency and demand response programs. In the past, most of Idaho Power's

energy efficiency programs were preliminarily identified through the IRP planning process. Because of Idaho Power's diversified portfolio of programs, most of the new potential for energy efficiency in the Idaho Power service area in the 2009 IRP is based on additional measures rather than new programs. The process in the IRP remains the same for determining if additional measures should be adopted as it was 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 less costly than supply-side resources from a levelized cost perspective, the hourly shaped energy savings is subsequently included in the IRP as a resource.

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

Idaho Power's goal is that all mature programs have benefit/cost (B/C) ratios greater than 1.0 for both the total resource cost (TRC), utility cost (UC), and participant cost test (PCT) tests at the program level and the measure level, except in cases where there is interaction between measures. Idaho Power may choose to launch a pilot or a program to evaluate estimates or assumptions in the cost-effectiveness analysis. Following implementation of a program, cost-effectiveness analyses are reviewed as new inputs from actual program activity become available, such as actual program expenses, savings, or participation levels. If measures or programs are determined to be not cost-effective after implementation, the program or measures are reexamined and modified based on input from the EEAG.

Appendix 4 contains the UC and TRC B/C ratios using actual cost information over the life of the program through 2009. 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 found in *Supplement 1: Cost-Effectiveness*.

DSM Annual Report Structure

The structure of Idaho Power's *Demand-Side Management 2009 Annual Report* has changed from previous years primarily because of the new reporting requirements included in the MOU with the IPUC staff. A copy of the MOU is found in *Supplement 2: Evaluation*.

This main *Demand-Side Management 2009 Annual Report* document remains similar to previous years, organized primarily by customer sector categorized by residential, commercial/industrial, and irrigation. The sector description is followed by information regarding programs in that sector. Each program description includes a chart containing 2009 and 2008 program metrics in tabular format, followed by a general description, 2009 activities, cost-effectiveness, customer satisfaction/evaluation, and 2010 plans. This year, each program section contains more detailed information than in previous years 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 2009

expenses and savings and supply historic information for all energy efficiency programs and demand response activities at Idaho Power.

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. Documents added this year are in the form of two supplements and an attached compact disc (CD).

Supplement 1: Cost-Effectiveness contains detailed cost-effectiveness information by energy savings measure. Provided in Supplement 1 are the B/C ratios from the UC, TRC, and PCT perspectives.

Supplement 2: Evaluation contains Idaho Power's evaluation plans, duplications of completed program evaluation reports, research reports, and reports done 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

Idaho Power serves over 406,000 residential customers in its Idaho and Oregon service areas. The population of the Idaho Power service area is over one million people. During 2009, Idaho Power added 2,258 residential customers, making it the second consecutive year of lower-than-normal growth within the company's service area. This growth was down from the 3,736 residential customers added in 2008. A sluggish regional and national economy and few new housing starts were the main drivers in this downward trend. In 2009, the residential segment represented 38 percent of Idaho Power's total electricity usage and contributed 46 percent of total revenue for the company.

Several positive things happened in 2009. Idaho Power's service area experienced mild temperatures over the course of the summer. As a result of these mild temperatures and the effective dispatching of demand response programs, the company did not set a peak load record event during summer 2009. Idaho Power did, however, set a new winter peak record of 2,528 MW on Thursday, December 10, 2009, at 8:00 a.m.

Programs

Table 4. 2009 Residential Program Summary

Program	Participants	Total Costs		Savings		
		Utility	Resource	Annual Energy (kWh)	Peak Demand (MW)	
Demand Response						
A/C Cool Credit.....	30,391 homes	\$3,451,988	\$3,451,988	n/a	38.5	
Total.....		\$3,451,988	\$3,451,988		38.5	
Energy Efficiency						
Ductless Heat Pump Pilot	96 homes	\$202,004	\$451,605	409,180	n/a	
Energy Efficient Lighting.....	549,846 bulbs	\$1,207,366	\$1,456,796	13,410,748	n/a	
Energy House Calls.....	1,266 homes	\$569,594	\$569,594	928,875	n/a	
ENERGY STAR® Homes Northwest.....	474 homes	\$355,623	\$498,622	705,784	1.1	
Heating & Cooling Efficiency Program	349 homes	\$478,373	\$764,671	1,274,829	n/a	
Home Improvement Program.....	1,188 homes	\$321,140	\$550,148	1,338,876	n/a	
Home Products Program.....	9,499 appliances/fixtures	\$511,313	\$844,811	1,638,038	n/a	
Oregon Residential Weatherization	1 home	\$7,644	\$8,410	2,907	n/a	
Rebate Advantage.....	57 homes	\$49,525	\$93,073	247,348	n/a	
See Ya Later Refrigerator	1,661 refrigerators/freezers	\$305,402	\$305,401	1,132,802	n/a	
Weatherization Assistance for Qualified Customers	437 homes/non-profits	\$1,294,862	\$2,146,218	4,678,815	n/a	
Weatherization Solutions for Eligible Customers	41 homes	\$162,995	\$162,995	211,720	n/a	
Total.....		\$5,465,841	\$7,852,344	25,979,920	1.1	

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 over 30,000 customers enrolled as of the end of 2009. During 2009, this program was expanded into Idaho Power's Pocatello service area. The residential efficiency programs include Energy House Calls, Rebate Advantage, ENERGY STAR[®] Homes Northwest, Oregon Residential Weatherization, Home Products, Energy Efficient Lighting, Weatherization Assistance for Qualified Customers (WAQC), and Heating & Cooling Efficiency. Additionally, three new programs and a pilot were implemented in 2009. The Attic Insulation Pilot retrofit program was renamed the Home Improvement Program, and the Home Weatherization Pilot became the Weatherization Solutions for Eligible Customers. The See Ya Later Refrigerator program and the DHP Pilot were added to the residential portfolio.

Idaho Power continued to increase its participation in the number of retail and community outreach events during 2009. Many of these events were partnerships with community retailers, including Home Depot, Lowes, Albertsons, and Wal-Mart. The company also participated in home and garden shows, the Parade of Homes, a library education series, and other community events across its service area.

Presentations to community groups and businesses were another emphasis during the year. Idaho Power customer representatives (CR) made approximately 100 presentations to civic and community groups, including chambers of commerce, school boards, service organizations, and businesses. 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.

Idaho Power conducts the Burke Customer Relationship survey each year. Fifty-one percent of residential survey respondents in 2009 indicated Idaho Power is meeting or exceeding their needs with information on how to save energy or reduce their bill. Fifty-four percent of residential respondents indicated Idaho Power is meeting or exceeding their needs with encouraging energy efficiency with its customers. Overall, 38 percent of Idaho Power residential customers surveyed in 2009 indicated Idaho Power is meeting or exceeding their needs in offering energy efficiency programs.

A/C Cool Credit

	2009	2008
Participation and Savings		
Participants (homes) ^(a)	30,391	20,195
Energy Savings (kWh)	n/a	n/a
Peak Reduction (MW) ^(a)	38.5	25.5
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	\$3,305,814	\$2,922,985
Oregon Energy Efficiency Rider	\$144,622	\$45,405
Idaho Power Funds	\$1,552	\$988
Total Program Costs—All Sources	\$3,451,988	\$2,969,377
Program Levelized Costs		
Utility Levelized Cost (\$/kWh)	n/a	n/a
Total Resource Levelized Cost (\$/kWh)	n/a	n/a
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	1.09	
Total Resource Benefit/Cost Ratio	1.09	
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 32,151 homes.

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) 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.

2009 Activities

In 2009, the program expanded beyond Ada County, Canyon County, Emmett valley, Payette area, and Twin Falls area into the Pocatello area. It expanded its presence on the Mountain Home Air Force Base (MHAFB) housing from 351 to 522 total participants. Cycling event hours continued to be in

three-hour periods, pinpointing the peak time with less potential impact on participants. There were only seven cycling events in 2009, all in July.

Summer 2009 temperatures were milder than the previous year. 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. Idaho Power's all-time peak of 3,214 MW was on June 30, 2008. With high temperatures milder in 2009, 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.

July is typically the warmest month, especially toward the last two weeks of the month. July 2008 had high temperatures ranging from 84° Fahrenheit (F) to 102°F, with five days in the 80s, 25 days in the 90s, and one day over 100°F. July 2009 had high temperatures ranging from 77°F–106°F, with two days in the 70s, four days in the 80s, 21 days in the 90s, and four days in the 100s. Although July 2009 had some higher temperatures, these were in a relatively short period, and the month also had some much lower temperatures than the previous year. The seven cycling events took place in July 2009 in this short, high-temperature period.

August tends to be cooler than July, and August 2009 was milder than August 2008. August 2008 had 20 days with temperatures above 90°F, while August 2009 had only 16 days in this range. In addition to the difference in weather, the economic conditions may have also influenced customers to use less power, thus reducing the need for cycling.

Marketing approaches during 2009 covered a range of methods. Initial marketing to the Pocatello area was in the form of a simple, direct-mail letter. The response was positive at 6.13 percent, with 1,361 customers enrolling from the mailing of 22,218 letters. Another successful marketing piece was a letter accompanied by a card made from recycled paper and embedded with flower seeds. Customers were urged to sign up for the program and then plant the card and enjoy the flowers. The letter resulted in a 2.6 percent response rate, with 4,170 customers enrolling from a mailing of 160,286 letters. Idaho Power employees visited large businesses, providing program information to the businesses. Idaho Power in-house A/C Cool Credit promotions attracted further program signups from Idaho Power employees.

The Smart Meter installations brought two 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 involved partnering with both the Idaho Foodbank and Southeast Oregon Regional Food Bank to provide an additional reason for signing 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 2008–February 2009, resulted in a total of \$38,120, equal to 114,360 meals, for the Idaho Foodbank, and \$1,020, equal to 5,100 pounds of food, for the Southeast Oregon Regional Food Bank.

The call center customer service representative (CSR) pilot that began in 2008 was continued into 2009. The 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 169 sign-ups in 2008 and 199 in 2009. The project has expanded from the initial five CSRs to nine trained CSRs.

An outreach project included an Idaho Power specialist and a heating, ventilation, and A/C (HVAC) journeyman providing A/C Cool Credit switch training for field technicians of HVAC companies. Technicians learned about the direct load control device installed on participating Idaho Power customers' A/C units. 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.

Cost-Effectiveness

The benefit/cost (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 *2006 Integrated Resource Plan (IRP)*. As published in the 2006 IRP, for peaking alternatives, such as demand response programs, a 162 MW simple-cycle combustion turbine is used as a cost basis. 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. Beginning in 2010, financial inputs and alternative costs will be based on the 2009 IRP, as filed with the IPUC and OPUC on December 30, 2009. *Supplement 1: Cost-Effectiveness* contains details on the cost-effectiveness assumptions and data.

Customer Satisfaction and Evaluations

In 2009, Idaho Power commenced an impact evaluation of the A/C Cool Credit program. Run-time data loggers were installed by the company's switch installation contractor on a random sample of participating customers' A/C units to collect data. The company also collected indoor air temperature on a sub-sample of participants to assess impacts of cycling on home comfort.

Once the data was collected and downloaded by Idaho Power, the company hired a third-party consultant, Paragon Consulting Services, to perform an analysis of the load-reduction impacts attributed to the program. Results of the study vary significantly. In some areas, including MHAFB, demand reduction from the program was well above 1.0 kilowatt (kW) per unit. In other areas, the analysis shows a variety of demand-reduction results that are less than 1.0 kW per unit. As indicated by the evaluation report found in *Supplement 2: Evaluation*, "Paragon considers the results of the 2009 A/C Cool Credit Program to be inconclusive regarding its potential as a cost-effective resource (sic). There were several factors that resulted in modest demand reduction results during 2009." Among the factors cited in the report were the mild summer of 2009, and the level of precision based on the sample size was not significant enough to identify conclusive results.

The original sample size of more than 100 data points was affected by an overwrite function in the data loggers that was unknown to Idaho Power when they were installed. This caused the loggers to rollover and discard collected data, resulting in a much smaller sample than was originally expected. Additionally, according to the data, some units appeared to begin cycling one hour before the event was scheduled, which could be due to a time-stamp error on the data collected by some of the loggers.

Idaho Power substantiated the load-reduction capability of the A/C Cool Credit program by examining system load data. This analysis is described in the *2009 Irrigation Peak Rewards Program Report* found in *Supplement 2: Evaluation*. On July 16, 2009, the estimated Idaho Power system peak would have been approximately 3,000 MW without any demand response. By subtracting the load reduction provided by Irrigation Peak Rewards and FlexPeak Management, the remaining load reduction value of 29 MW is assumed to be due to A/C Cool Credit. This amount of demand response is consistent with previous analyses of the program.

Due to the results of the 2009 evaluation, Idaho Power contracted with Paragon Consulting Services to develop a detailed plan to evaluate the impacts of the A/C Cool Credit program. Idaho Power will use the evaluation plan for future evaluations of the program.

2010 Strategies

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. Idaho Power will continue to distribute A/C Cool Credit program information by using the technicians who install new Smart Meters in 2010. The technicians will leave a door hanger with A/C Cool Credit program information on the customer's doorknob after completing their installation work.

The 2010 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.

Based on the recommendations of Paragon Consulting Services' evaluation report, Idaho Power is planning to change its strategy for A/C cycling events. The strategy will be to divide the switches into groups based on geographic location and expected normal temperatures. One group will be the Pocatello area, which will have a cycling strategy of 60 percent. A second group will be the Payette and Twin Falls areas, with a cycling strategy of 50 percent. The third group will be the Boise/Mountain Home area. This group will have two cycling options, depending on the forecasted temperature. The normal cycling strategy will be 50 percent, and for days forecasted to be 103°F or above, the cycling strategy will be 40 percent. When temperatures are lower, customers will not use their A/C as much, or their A/C will be shut off. Idaho Power can then cycle at a higher percentage of time to achieve a greater demand reduction without interfering with customers' comfort level.

Ductless Heat Pump Pilot

	2009	2008
Participation and Savings		
Participants (homes)	96	n/a
Energy Savings (kWh)	409,180	n/a
Peak Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	\$192,264	n/a
Oregon Energy Efficiency Rider	\$9,740	n/a
Idaho Power Funds	\$0	n/a
Total Program Costs—All Sources	\$202,004	n/a
Program Levelized Costs		
Utility Levelized Cost (\$/kWh)	\$.031	n/a
Total Resource Levelized Cost (\$/kWh)	\$.086	n/a
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	4.11	
Total Resource Benefit/Cost Ratio	1.49	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2009	

Description

Idaho Power joined the Northwest DHP Pilot project in 2009 and implemented the pilot throughout its service area. The goal of the pilot was to promote the DHP technology as an energy-saving alternative for customers who primarily heat their homes with electric heating. Other goals were to determine how much electricity this technology saves in order to validate a deemed-savings number and to obtain customer satisfaction and behavior patterns regarding the technology. Idaho Power offered customers a \$1,000 incentive to participate.

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.

2009 Activities

Idaho Power chose to target 100 participants for the Northwest DHP Pilot. As participation levels neared the 100-application limit, the company announced to contractors that Idaho Power would accept additional applications through September 4, 2009. Idaho Power received over 130 applications.

Along with other utilities in the region, Idaho Power decided to continue the pilot and is accepting applications beyond the initial 100 customer level to maintain the valuable momentum created in the

marketplace among contractors and customers. In 2009, the RTF provisionally deemed the energy savings from DHP conversions based on regional climate zones. These savings are expected to be used until the final results of the regional DHP Pilot and evaluation is complete in 2012.

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 targeted customers based on several factors, including energy usage and length of time in the home. The company also marketed the pilot to employees through an article in the employee newsletter, and to contractors by calling and visiting with them to inform them of the pilot.

In September, Idaho Power participated on a panel at a one-day workshop in Portland, Oregon. This event brought together HVAC contractors, HVAC manufacturers, distributors, utilities, and energy efficiency organizations to share experiences from pilot participation to date, and to learn more about DHP technology, sales, and marketing strategies.

Cost-Effectiveness

With participation in the Northwest DHP Pilot, Idaho Power helped contribute to the regional effort to estimate savings for ductless systems. Among the 96 installations in 2009, 13 sites in Idaho Power's service area were selected for detailed site-monitoring of the energy usage. Until the end of the monitoring phase of the project is completed and savings estimates by climate type are produced, the cost-effectiveness models are based on provisionally deemed savings provided through research done by the RTF.

A \$60,000 expense made to NEEA to support the regional research effort was excluded from cost-effectiveness analysis models to differentiate the company program efforts from the payments that were part of the Northwest DHP Pilot. Only company administration and marketing costs were allocated across the 96 projects that were paid in 2009. The installation costs submitted on incentive application forms were used to estimate customer costs on a per-unit installation price basis. The median incremental cost-per-unit was \$3,600 across the 96 installations in 2009. For a detailed list of provisional deemed savings by climate type and associated cost-effectiveness assumptions, see the DHP section in *Supplement 1: Cost-Effectiveness*.

Customer Satisfaction and Evaluations

Quality assurance (QA) on-site verifications (OSV) were conducted by a NEEA contractor as part of the regional pilot. The regional pilot targeted 10 percent of completed installations. Nine 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 QA process.

While Idaho Power did not gather written customer satisfaction surveys this year, several customer responses were gathered orally. Based on the feedback customers shared via telephone calls or from QA visits, customers are pleased with their systems.

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.

A DHP Market Research Report was completed by NEEA in 2008 and provided indications of the current market for DHPs in the Northwest. The first MPER will be made available by NEEA in 2010.

2010 Strategies

Idaho Power will offer a revised version of the 2009 DHP Pilot to residential customers in 2010. Changes to the eligibility requirements reflect the fact that some research requirements needed for the official regional pilot are no longer needed in the future. In addition, some of the changes are based on information learned from the QA inspections, including eliminating the requirement that customers must have lived in their home for a minimum length of time and the home was a primary residence, and adding a requirement for installation of exterior line set covers. New home construction does not qualify.

DHPs are a great opportunity for customers to heat their homes more efficiently and to use less energy, but the finding, and marketing to customers in the types of electric homes that work best with a DHP is a challenge. Also, because DHPs are considered an emerging technology in Idaho, the profile of a typical participant will be essential for future targeted marketing. Marketing plans for 2010 will include demographic profiling of all participants using market segmentation software. Since it would be less efficient and more costly to mail marketing materials to a broad cross-section of Idaho Power's customer base, the company will market only to customers who match the unique demographic profile from the analysis.

Idaho Power will continue to market the pilot using direct-mail letters to the targeted groups, as well as by placing articles in the monthly residential newsletter. Written surveys will be sent to customers who participate in the pilot in 2010. The final pilot evaluation report is expected to be available in 2012. The regional DHP Pilot project team will provide limited QA inspections for the region in 2010. Idaho Power will investigate augmenting the regional QA inspection with its own QA inspections.

Energy Efficient Lighting

	2009	2008
Participation and Savings		
Participants (CFL bulbs)	549,846	436,234
Energy Savings (kWh)	13,410,748	14,309,444
Peak Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	\$1,190,065	\$1,011,850
Oregon Energy Efficiency Rider	\$17,300	\$6,242
Idaho Power Funds	\$1	\$200
Total Program Costs—All Sources	\$1,207,366	\$1,018,292
Program Levelized Costs		
Utility Levelized Cost (\$/kWh)	\$0.020	\$0.011
Total Resource Levelized Cost (\$/kWh)	\$0.024	\$0.013
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	2.96	
Total Resource Benefit/Cost Ratio	2.67	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2002	

Description

ENERGY STAR[®] qualified compact fluorescent lamps (CFL) are an alternative to standard incandescent light bulbs, and 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. Using energy-efficient lighting helps preserve energy resources and the environment.

The Energy Efficient Lighting program strives for residential energy savings through the replacement of 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.

2009 Activities

Two promotions, one for spiral bulbs and the other for specialty bulbs, were held during 2009. 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. The program was set to end at the end of 2008. Idaho Power issued a Request for Proposal (RFP) in December 2008 to run a similar promotion. Three companies responded to the RFP. Fluid was chosen based on their marketing experience and pricing. Fluid and Idaho Power extended the 2008 promotion through June 2009 to allow

for development of a new contract, the promotion coordination, and the completion of the new manufacturer arrangements. The new promotion began in July 2009. One highlight of the new promotion was rotating point-of-purchase materials. Four sets of marketing pieces were developed to coordinate the campaign. To keep the promotion fresh, the sets will be rotated throughout the 2009 and 2010 year.

Idaho Power participated in the BPA Change a Light promotion focusing on specialty bulbs. Portland Energy Conservation, Inc. (PECI) managed this promotion, which was extended several times throughout 2009 and, therefore, ran the entire year.

For both the spiral-bulb and specialty-bulb promotions, there were some carryovers of savings from 2008. Annual savings are counted in the year in which incentives have been paid. Therefore, the November and December sales often carry into the next year.

Both PEGI 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.

The coupon-based marketing promotion identified in the *Demand-Side Management 2008 Annual Report* was not pursued due to limited distribution options and data security concerns around safeguarding customer information.

Additional 2009 program activities included direct install, in-store events, and new marketing materials. Idaho Power has a small direct-install 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. The guidelines for approved venues and the direct-install effort have been developed to ensure customer fairness.

During 2009, Idaho Power participated in 18 in-store events with large and small national retailers. In-store events were designed to communicate directly to customers at the point of sale. Idaho Power set up tables with light displays at the entrances of stores and was available to answer questions about CFLs.

Idaho Power rewrote two marketing/education pieces distributed to customers at events. The *Change a Light Tips* brochure was redesigned to add more information and graphics explaining color temperature, bulb shapes, and wattage conversions. The *Energy Smart Security Lighting* brochure was redesigned to help educate customers on energy-efficient lighting for outdoor areas and was distributed at National Night Out events.

Table 5 describes the energy savings and the number of CFL bulbs contributed by each segment of the program.

Table 5. Energy Efficient Lighting Energy Savings

Promotion	Description	Contractor	Timeframe	Bulbs sold	kWh
2008 Change a Light Spiral.....	99¢ spiral bulbs	Fluid	2008 carryover	20,836	508,201
2008 Change a Light Specialty	Specialty bulbs in "big-box" stores	BPA/PECI	2008 carryover	65,231	1,590,984
2009 Change a Light Spiral.....	99¢ single-pack spiral bulbs	Fluid	2009	241,358	5,886,714
2009 Change a Light Specialty	Specialty bulbs in "big-box" stores	BPA/PECI	2009	221,541	5,403,385
Direct Install	Bulbs given directly to customers	n/a	2008	880	21,463
Total.....				549,846	13,410,748

Cost-Effectiveness

The Energy Efficient Lighting program has been in place since 2002 under a variety of names, promotions, and methods of delivery. In 2002, Idaho Power worked with Ecos Consulting to launch a coupon-based CFL lighting program. The results of this promotion are detailed in the *Final Report Idaho Power Company ENERGY STAR® Residential Lighting Program*, completed by Ecos Consulting in 2003. Due to the high volume of bulbs sold and very little administration overhead, the program was cost-effective. The assumptions were based on regional values used by the NPCC's RTF. According to the RTF, the annual savings were deemed at 71 kWh-per-CFL with a measure life of six years.

The coupon program ended in 2003; however, the lighting program continued over the years with the company's participation in various regional promotions. With Idaho Power's continued partnership with NEEA and BPA, the company has been able to offer energy-saving opportunities to residential customers under such promotions as Savings with a Twist and Change a Light. Since 2006, Idaho Power has used the regional 32.8 kWh savings per bulb established by BPA. These promotions were determined to be cost-effective and have been documented through numerous studies conducted regionally by NEEA, BPA, and the RTF.

In 2009, the RTF approved de-rating CFL savings by approving a 37 percent storage rate to replace the 12 percent removal rate and 5 percent take-back assumption in the savings calculation. This change impacted only CFLs delivered through retail channels and not direct installs or non-retail based rebate programs. As a result, savings for CFLs delivered via retail channels were reduced from 32.8–24.4 kWh/year. For detailed cost-effectiveness assumptions, metrics, and sources, see *Supplement 1: Cost-Effectiveness*.

Customer Satisfaction and Evaluations

In 2009, a MPER was completed by KEMA, Inc., for NEEA regarding consumer lighting initiatives to advance awareness and use of CFLs. This report concluded that the market for CFLs continued to make progress in the Northwest and that regional CFL sales, availability, and diversity had increased. A copy of this report is included in *NEEA Market Effects Evaluations* on the CD located in *Supplement 2: Evaluation*.

2010 Strategies

No major changes are expected to be made to the Energy Efficient Lighting program in 2010. Idaho Power plans to continue in-store promotions for buy-downs and markdowns of bulbs. The spiral-bulb promotion with Fluid will run through December 2010. The specialty-bulb promotion with BPA will run through December 2010 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.

The *Energy Independence 2007 Act* requires, by 2012–2014, all light bulbs use 30 percent less energy than today's incandescent bulbs. The phase-out will start with 100-watt bulbs in January 2012 and end with 40-watt bulbs in January 2014. By 2020, a Tier 2 would become effective requiring all bulbs to be at least 70 percent more efficient, effectively equal to today's CFLs.

Under the Act, 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-watt bulbs must meet the standards by 2013 and 60-watt 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.

LED light bulbs are on display at many major retailers. It is important to note that an ENERGY STAR specification is not in effect for LED replacement bulbs. Therefore, the quality of the bulbs may vary considerably. Until an ENERGY STAR specification is implemented, Idaho Power does not plan to promote these products for the residential market. Once an ENERGY STAR qualification is developed, Idaho Power will evaluate the price, availability, and savings to see if a program should be offered. Idaho Power will continue to monitor trends and developments in LED technologies. Because an ENERGY STAR qualification exists for LED fixtures, Idaho Power offers an incentive for these under the Home Product Program.

Energy House Calls

	2009	2008
Participation and Savings		
Participants (homes)	1,266	1,099
Energy Savings (kWh)	928,875	883,038
Peak Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	\$479,174	\$448,992
Oregon Energy Efficiency Rider	\$90,420	\$35,388
Idaho Power Funds	\$0	\$0
Total Program Costs—All Sources	\$569,594	\$484,379
Program Levelized Costs		
Utility Levelized Cost (\$/kWh)	\$.052	\$0.045
Total Resource Levelized Cost (\$/kWh)	\$.052	\$0.045
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	2.07	
Total Resource Benefit/Cost Ratio	2.07	
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 using an electric furnace or heat pump.

Leaking duct systems can lose as much as 70 percent of the air intended for heating or cooling in a home. Ducts operate under pressure, which results in similar air losses from either a one-square-inch hole in ductwork or a 25-square-inch hole in a wall that is not under pressure. Overall system efficiency can be reduced by 30 percent due to heat loss from the average duct system.

Services and products offered through the Energy House Calls program include duct testing and sealing according to Performance Tested Comfort System (PTCS) Standards set by the RTF and adopted by the BPA; installation of five CFL bulbs; providing of two furnace filters, along with replacement instructions; water heater temperature test for proper setting; and distribution of energy efficiency educational materials for manufactured-home occupants. The value of the service to the customer is dependent on the complexity of the repair. The typical cost range of the average service call is \$300 to \$350. Idaho Power provides the customer with the contractor contact information. Customers access the service by directly calling one of the recognized, certified contractors specially trained to provide these services in their region.

Program delivery is under contract with Ecos Consulting, a company with experience managing and supplying duct-sealing service programs. Ecos Consulting coordinates the contractors performing local weatherization and energy efficiency services.

2009 Activities

Idaho Power renegotiated the contract with Ecos Consulting for continuing delivery of the Energy House Calls program during 2009. Energy House Calls serviced 1,266 manufactured homes during 2009, resulting in over 928,000 kWh savings. QA was conducted on 5 percent of the homes serviced in the program.

The original intent for 2009 was to focus marketing efforts primarily on the Treasure Valley area due to decreasing demand and the perceived saturation in other areas toward the end of 2008. However, analysis of the program demonstrated that participation remained fairly constant the first part of the year in areas outside the Treasure Valley. As a result, the company continued to market in these lower-participation locations, including the eastern and southern regions and in Oregon.

The campaign included a bill stuffer sent to all residential customers in specific areas and a *Customer Connection* article to all Idaho Power residential customers. These additional marketing efforts did not initially create a great influx of additional participation, but it did allow Idaho Power to reach customers who may have not been targeted directly in the past. The bill insert was sent in August, and the *Customer Connection* article went out in September in an effort to increase participation in all areas to meet the program's annual energy-savings goals and to educate customers on the benefits of duct-sealing. These additional marketing efforts may generate additional participation during winter 2010.

Cost-Effectiveness

Savings for Energy House Calls are primarily based on the savings of duct-sealing in electric homes. The savings vary by climate zones within the company's service area. Variations of savings also occur because of differing types of heating and cooling equipment in the homes where the measures are installed. Additionally, up to five CFL bulbs are directly installed in the homes at the time that the duct work is done. All reported energy savings for both duct-sealing and directly installed CFL's are deemed and published by the RTF.

In fall 2009, the cost-effectiveness analysis was re-evaluated at the measure level by climate zone using the 2009 IRP alternative costs. The results indicated the program was cost-effective in all climate zones. Historically, less than 5 percent of the program's projects have occurred in the warmer Treasure Valley area and about 95 percent in the cooler, more cost-effective areas. This new analysis enabled Idaho Power to market the program in all climate zones equally. A sensitivity analysis was also performed to determine if an increase in the third-party contractor administration fees would affect the cost-effectiveness of the program. It was determined that a 10 percent increase in administration fees may cause the projects in warmer areas to be non-cost-effective. For more detailed information about the cost-effectiveness savings and assumptions, see the Energy House Calls section in *Supplement 1: Cost-Effectiveness*.

Customer Satisfaction and Evaluations

In an Idaho Power survey conducted in 2009 with non-participants, defined as those who have received direct-mail letters, but have elected to not participate, it was determined the company's direct marketing efforts needed reevaluation. Idaho Power sent out 871 surveys and received 266 responses, resulting in a 31 percent response rate. The following are the results of the question "What would prevent you from participating in a free duct-sealing program for electrically heated home?" The survey participants were asked to check all that apply, thus the totals do not equal 100 percent:

- Forty percent stated, "I don't have electric heat in my home."
- Nineteen percent stated, "I don't understand the program."
- Fifteen percent stated, "I don't trust 'free' offers."
- Twelve percent stated, "I'm concerned it won't be convenient to schedule an appointment."
- Seven percent stated, "I don't want strangers in my house."
- Four percent stated, "I don't think my home needs the service."

Based on the feedback from the survey, Idaho Power continued its direct-mail campaign by redesigning and mailing a solicitation letter with a more conversational tone that is more customer-friendly.

Verbatim comments from a recent Burke Customer Relationship survey showed that customers prefer this type of tone as opposed to a more traditional, business-oriented tone. Idaho Power performed an analysis in 2009 to identify homes that were likely electrically heated manufactured homes. Based on results of this analysis, the letter was sent to customers who have not participated in the program in Idaho and Oregon.

To monitor QA, third-party audits are conducted in 5 percent of the homes served. Of the 51 homes inspected in 2009, nine homes received a "fail," requiring the contractor to return to the home to remedy the situation. Based on the review of the "failed" homes by an Ecos Consulting representative, nine homes out of 51 is considered an adequate failure rate. The number of homes and the reasons these homes were given a non-passing rating include:

- Reduction variance greater than 20 percent higher or lower than the contractors' readings. In these cases, the technicians were instructed to have their manometers recalibrated.
- Two had crossover duct work touching the soil. The contractors returned to the home and secured them.
- Three had too much mastic applied at the registers. The inspector removed the mastic from the problem registers. The responsible technician is no longer working for the contractor.
- On one large job, the contractor was required to return to the home and properly finish the job.
- One job had crossover insulation hanging down, and the contractors missed an opportunity to seal more ends. The contractors returned to the home to complete the repairs.

The *Site Inspection Summary Report* conducted by Ecos Consulting is included in *Supplement 2: Evaluation*.

2010 Strategies

Plans for the upcoming year include continuing the direct-mail campaign to all of the Idaho Power service area to improve participation, particularly in the eastern and southern regions and in Oregon. Because not all manufactured homes may be correctly identified in Idaho Power's Customer Information System (CIS), the company will 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.

ENERGY STAR® Homes Northwest

	2009	2008
Participation and Savings		
Participants (homes)	474	254
Energy Savings (kWh)	705,784	468,958
Peak Reduction (MW)	1.1	1.0
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	\$348,829	\$294,579
Oregon Energy Efficiency Rider	\$5,928	\$6,388
Idaho Power Funds	\$866	\$1,094
Total Program Costs—All Sources	\$355,623	\$302,061
Program Levelized Costs		
Utility Levelized Cost (\$/kWh)	\$0.039	\$0.048
Total Resource Levelized Cost (\$/kWh)	\$0.055	\$0.059
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	1.59	
Total Resource Benefit/Cost Ratio	1.26	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2003	

Description

ENERGY STAR® Homes Northwest is a regionally coordinated initiative supported by a partnership of Idaho Power, NEEA, and Energy Inspectors to improve energy-efficient construction practices for new, single-family homes. This program results in summer peak reduction and, additionally, targets the reduction in energy usage accomplished by increasing the efficiency of residential building envelope and air delivery system.

The ENERGY STAR Homes Northwest residential construction program builds homes that are at least 20 percent more energy efficient than those built to standard Idaho code. The program specifications for ENERGY STAR Homes are verified by independent, third-party home performance specialists (HPS) and are certified by the Energy Inspectors, an organization based out of Salt Lake City, Utah that conducts the certification inspections for Idaho and the United States Environmental Protection Agency. 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.

Builders involved in ENERGY STAR Homes Northwest receive up to a \$400 incentive per home built to the Northwest Builder Option Package (BOP) standards in Idaho Power's service area. Builders who enter their homes in a Parade of Homes receive a \$1,000 incentive to encourage builders to construct ENERGY STAR homes and enter those homes in future Parade of Homes.

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 2009 was conducting education and training activities for residential, new construction industry partners.

2009 Activities

Although the 2009 housing market was in a severe downturn throughout the Idaho Power service area, 474 ENERGY STAR homes were certified. This number reflects the most homes ever certified in the Idaho Power service area in a single year. Idaho Power believes the increase in certifications during 2009 is due to builders understanding the value in building to ENERGY STAR standards.

Idaho Power conducted numerous ENERGY STAR promotional activities during 2009. The company presented energy efficiency awards at the Building Contractors Association of Southwest Idaho (BCASWI) Parade of Homes awards banquet and presented certificates of accomplishment 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 SRVBCA Builder's Expo, the Magic Valley Builders Association Parade of Homes, the BCASWI Parade of Homes, SRVBCA Parade of Homes, the Home Depot Contractors show, and the Idaho Building Contractors Association Convention.

Media campaigns were used as a method to potentially heighten awareness of the ENERGY STAR Homes Northwest program. The ENERGY STAR Homes Northwest program specialist was a guest on the The HomeFix Show with Joe Prin on 580 KIDO 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 bill. These bill messages encouraged Idaho Power customers to visit ENERGY STAR qualified homes in their local Parade of Homes events. An ENERGY STAR Homes Northwest program bill stuffer sent information to all residential customers in the Idaho Power service area.

In spring 2009, Hubble Homes signed a contract to become a 100 percent ENERGY STAR builder. Hubble Homes is the first production builder in Idaho to commit to building 100 percent ENERGY STAR homes and was a large factor in the program's success in 2009. Idaho Power, Northwest ENERGY STAR, and Hubble Homes participated in a cooperative media campaign to kick-off this milestone. The campaign consisted of radio and television advertisement, co-branded marketing materials, and an ENERGY STAR Builder Expo that advertised Hubble Homes as a 100 percent ENERGY STAR builder.

A special event included the St. Jude Dream Home kickoff and groundbreaking. The Dream Home will be a certified ENERGY STAR National Association of Home Builders (NAHB) green home and will be a net-zero energy home. This home will be raffled off to benefit the St. Jude Children's Hospital.

Idaho Power sponsored the Houses That Work and Indoor Air Quality/Ventilation Strategy Workshop, in cooperation with the Energy and Environmental Building Association's (EEBA). This workshop featured a nationally recognized building scientist brought in by EEBA. The event was conducted in cooperation with Northwest ENERGY STAR.

Cost-Effectiveness

In 2008, the Idaho residential building code was implemented based on the 2006 International Energy Conservation Code (IECC). In 2007, in anticipation of this change, the cost-effectiveness analysis for the ENERGY STAR Homes Northwest program was refreshed. Due to the improved building code, reductions were made to the incremental energy savings associated with the electric portion of building a new home to the specifications required by the program. These reductions were based on an analysis provided by a third-party consultant, Ecotope, Inc. The cost-effectiveness analysis in 2008 resulted in Idaho Power reducing the incentive paid to contractors building an ENERGY STAR home from \$750 to \$400 in order to maintain cost-effectiveness.

Under the current residential building code, Ecotope estimated that a typical home constructed under the ENERGY STAR Homes Northwest program would result in incremental energy savings of approximately 1,400 kWh. The inputs used for calculating the cost-effectiveness of the program in 2009 remain unchanged.

The detailed inputs for the cost-effectiveness of the program are included in *Supplement 1: Cost-Effectiveness*. In 2010, Idaho Power will use the results from recent evaluations of the ENERGY STAR Homes Northwest program to make changes to the program if appropriate.

Customer Satisfaction and Evaluations

In the past, through the involvement of the Idaho Office of Energy Resources (IOER), QA was performed by the HPS. The HPS worked with builders to ensure that the constructed home complied with the Northwest BOP. Along with verifying the installation of building components and equipment through on-site inspections, prior to being qualified, the home had to pass a blower door test, air duct leakage test, and combustion back draft tests.

In May 2009, Energy Inspectors became the organization responsible for certifying homes to ENERGY STAR specifications. Energy Inspectors also took over the QA duties that ensure constructed homes comply with the Northwest BOP. In Oregon, the Oregon Office of Energy continues to certify ENERGY STAR homes. Approximately 10 percent of homes certified in the ENERGY STAR Homes Northwest program are reviewed for QA purposes.

Idaho Power participated with NEEA throughout 2009 to evaluate the ENERGY STAR Homes Northwest program. This comprehensive impact evaluation is based on a sample of ENERGY STAR qualified homes built from 2006–2007 compared with new homes built during 2004–2005 that were not constructed under the program. Key components of the study included a market characterization,

lighting logger analysis, and estimation of energy savings through billing analysis and building simulation modeling. The final report of this evaluation will be made available by NEEA in 2010.

Also in 2009, NEEA completed a MPER on the ENERGY STAR Homes Northwest program to identify market share attainment and market progress in the new home market. The final copy of this market effects evaluation is included in *NEEA Market Effects Evaluations*, on the CD in *Supplement 2: Evaluation*.

2010 Strategies

In 2010, Idaho Power plans to continue marketing efforts, including assisting existing builders in moving unsold ENERGY STAR homes inventory with print advertising and continuing to educate consumers, realtors, and appraisers about the benefits and features of ENERGY STAR homes to help sell ENERGY STAR homes. Results will be influenced by the housing market's potential improvements.

The company will participate in the St. Jude Dream Home Give Away. A cooperative media campaign to promote the ENERGY STAR and energy efficiency features of this home is currently being planned. This campaign will include a bill stuffer in June.

Heating & Cooling Efficiency Program

	2009	2008
Participation and Savings		
Participants (homes)	349	359
Energy Savings (kWh)	1,274,829	561,440
Peak Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	\$458,216	\$466,094
Oregon Energy Efficiency Rider	\$20,032	\$6,959
Idaho Power Funds	\$125	\$498
Total Program Costs—All Sources	\$478,373	\$473,551
Program Levelized Costs		
Utility Levelized Cost (\$/kWh)	\$0.034	\$0.073
Total Resource Levelized Cost (\$/kWh)	\$0.054	\$0.092
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	1.61	
Total Resource Benefit/Cost Ratio	0.91	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2007	

Description

The H&CE provides incentives for the purchase and proper installation of qualified heating and cooling equipment and services to residential customers. This program has been available to Idaho customers since September 2007 and Oregon customers since August 2008.

The objective of the H&CE Program is to acquire kWh savings. Cash incentives are provided to residential customers and HVAC contractors who install eligible equipment and services. Until April 30, 2009, the eligible measures included air source heat pumps, open-loop water source heat pumps, evaporative coolers, central A/Cs, and central A/C and heat pump tune-ups. The issue of removing A/C and tune-ups from the program was presented to the EEAG during conference calls on January 8 and 9, 2009, and discussed at the February 19, 2009, EEAG meeting.

After April 30, 2009, central A/C and all tune-ups were removed from the program as a result of cost-effectiveness analysis. Participating HVAC companies were required to perform all installations and services, with the exception of evaporative coolers, which could be self-installed. This essentially changed the program to a heat pump and evaporative cooler program while maintaining installation requirements for heat pumps.

2009 Activities

Toward the end of 2008 and early 2009, the company reviewed the calculated cost-effectiveness analysis for the H&CE Program and updated the cost-effectiveness analysis with actual expenses from 2008. The results of this analysis showed that some measures were not cost-effective, which resulted in the removal of the measures mentioned above.

In response to the 2008 contractor feedback, and after evaluating the cost-effectiveness of doing so, Idaho Power increased the participating contractor incentive. This change resulted in additional contractor participation. The program sponsored 12 contractor training classes on the proper sizing and installation of heat pumps, in which more than 100 contractors participated.

Various marketing activities occurred during 2009. Bill messages on residential customer bills were sent throughout the spring and summer. Bill inserts were used twice during the year. An article about the H&CE Program was included in the company newsletter, *Customer Connection*. The program was promoted at various home and garden shows and at other community events, such as the Idaho Green Expo.

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 random OSVs to verify what was submitted on the paperwork is what was installed at customers' sites. Overall, OSV results were good; 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 in the program.

The H&CE Program's list of measures and incentives during 2009 include:

- 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.

Cost-Effectiveness

At the end of 2008, the first full calendar year of the program, the cost-effectiveness of the measures offered by the program was re-examined. This analysis demonstrated that the central A/C measures incenting efficient equipment and quality installation above and beyond code were not cost-effective. Also, the inclusion of commissioning or tune-ups for both A/C and heat pumps was reevaluated.

Originally, the inclusion of these measures, even though new codes in Idaho minimized potential savings, was to support and promote quality installation in the company's service area. Savings for proper sizing and installation of an A/C unit with a seasonal energy efficiency rating (SEER) of 13 (energy code threshold) were determined to be 312 kWh on annual basis through analysis done in 2006 by PECL, Inc. A/C that met a SEER 14 or SEER 15 accounted for additional savings of 46 kWh and 334 kWh respectively above and beyond the savings for proper sizing and installation with slightly lower savings for new construction situations.

The results of the first year of operation of the program showed that these measures were not cost-effective due to low savings and high training and education expenses. Commissioning or tune-ups for central A/C and heat pumps were also determined to be not cost-effective due to high free ridership and low annual savings. Contractors in many cases were offering the tune-up incentives to customers already on maintenance agreements. After discussions with EEAG members, the decision was made to discontinue these measures but to allow A/C incentives to continue until April 30, 2009, to allow for effective communication of program changes between Idaho Power CRs, program managers, HVAC contractors, and customers. The resulting program measures focused on heat pumps and evaporative coolers.

During 2009, through quality control assessments and interaction with contractors, the company determined that many contractors in Idaho Power's service area were sizing heat pumps based on cooling load, or in some cases, relying on the size of the existing system being replaced. The consequence was that many systems were being undersized for heating load. This impacted the potential heating savings. Ecotope, Inc., who had done the previous heat-pump modeling for the program, was asked to evaluate savings based on the undersizing contingent that was occurring in the marketplace. Ecotope also used data collected from previous program participants to update other assumptions in their modeling, including the level of weatherization and size of the home. Three categories of house sizes were chosen and included 1,350 square feet, 2,200 square feet, and 2,688 square feet. Differing levels of weatherization were created and included old, weatherized, and new. Levels of weatherization were estimated based on prior customer participation data and used for their savings simulation model. The old category old signified that the home was relatively uninsulated, while weatherized homes were typically fully weatherized, and the new category meant that the home was built to mid-1990's specifications or newer. Previously, heat pump savings simulations were based on the assumption that all homes were smaller than 1,350 square feet and well-insulated.

The results of the analysis were adopted from the evaluation of savings, and it was decided to use conservative savings, reduced for the potential of contractors to under-size systems for heating load.

The complete list of analysis and recommendations in the evaluation memorandum titled *Heat Pump Sizing Specifications and Heat Pump Measures Savings Estimates* is included with the annual report filing of evaluation documents found in *Supplement 2: Evaluation*. As a result of the inclusion of some non cost-effective measures in the first year of operation, the program life B/C from the TRC perspective is still slightly under one, however, the B/C ratios for 2009 from the UC, TRC, and PCT perspectives are all greater than one. Detailed views of the assumptions used for cost-effectiveness in the H&CE Program are found in *Supplement 1: Cost-Effectiveness*.

Customer Satisfaction and Evaluations

Periodic satisfaction surveys were mailed to 167 customers who participated in the program during 2009. Sixty-nine percent, or 115, of surveys mailed to customers were returned. Of those who answered the question, 80 percent of the customers said they heard about the program “from their contractor.” When asked if the H&CE Program incentive influenced their purchasing decision, 60 percent said “yes.” The majority of customers answered the program was “easy to participate in,” and 90 percent responded that they were “very satisfied” or “somewhat satisfied” with the program. The majority of respondents said they “would” refer the program to a friend or relative. Complete results of the survey are located in *Supplement 2: Evaluation*.

A contractor survey was conducted in 2009, with 65 e-mailed surveys sent out to participating and non-participating contractors. Nineteen contractors responded to the survey. Eighteen stated that they participated to some degree in the program in 2009, and one reported they did not. The one company that did not participate said they did not because they were too busy. Sixty-two percent of contractors said they were “very likely” to install heat pumps to meet program requirements regardless of the incentive.

The majority of contractors said their company realized at least “some” benefits from participating in the H&CE program in 2009 and they would be “likely” to participate in the future.

The reasons were varied as to what benefits they received from participating in the program. Contractors said it helped them to increase sales, to install equipment that is more efficient, and to ensure quality installation.

Reasons why some of the contractors said they did not benefit from the program were related to the paperwork required by the program and the contractor’s inability to convince customers to upgrade to more efficient equipment to meet program specifications.

Contractor recommendations for Idaho Power included continuing the program, continuing promoting dealers, considering opening up the program to closed-loop heat pump systems, providing ongoing training, and making the program more user-friendly. One contractor commented, “Thank you for providing the program. I believe it has a huge impact in the education of the public as to proper sized and installed equipment. (sic)”

For ongoing QA, Honeywell Inc., is the third-party contractor responsible for performing OSV. Approximately five percent of the projects completed in the H&CE Program are inspected by Honeywell. In 2009, Honeywell complete OSVs on 38 installations. Of these 38 installations, 95

percent, or 36 installations, were either compliant or were brought into compliance. Of the remaining two projects that had difficulty passing the OSV, only one ultimately received an incentive payment.

2010 Strategies

During the fourth quarter of 2009, an Idaho Power project team reviewed the H&CE Program requirements to see if any changes were needed for 2010. The project team evaluated the 2009 project submittals to determine what levels of airflow were being achieved by contractors on new heat-pump installations. Overall, the higher airflow levels are available to be achieved as compared to the tune-up projects formerly included in the program. Additionally, program staff incorporated input from contractors regarding increasing the airflow requirement. The team determined that the minimum airflow cubic feet-per-minute (CFM) per ton should be raised. Effective February 1, 2010, the minimum airflow will increase from 325 CFM per ton to 350 CFM per ton.

Feedback was received during the last half of 2009 from participating contractors regarding the program's requirement on heat pump equipment sizing. Several contractors were concerned with the program sizing requirement, which is to size heat pumps to within ½ ton of dominant load. The company commissioned Ecotope, Inc., to review actual project submittal information for the 2009 projects and review the kWh savings being claimed by the program. Based on the analysis performed by Ecotope, Inc., Idaho Power adjusted the energy savings for projects in the program to conform with the analysis results.

During 2010, Idaho Power will market the program through articles in the monthly *Customer Connection* newsletter and direct-mail letters to targeted group of customers.

The program will continue to offer contractor training for those who wish to become participating companies. In addition, heat pump-controls classes will be offered early in 2010. Idaho Power will continue to monitor customer and contractor satisfaction and solicit contractor feedback on the program.

Home Improvement Program

	2009	2008
Participation and Savings		
Participants (homes)	1,188	282
Energy Savings (kWh)	1,338,876	317,814
Peak Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	\$321,140	\$123,454
Oregon Energy Efficiency Rider	\$0	\$0
Idaho Power Funds	\$0	\$0
Total Program Costs—All Sources	\$321,140	\$123,454
Program Levelized Costs		
Utility Levelized Cost (\$/kWh)	\$0.019	\$0.029
Total Resource Levelized Cost (\$/kWh)	\$0.032	\$0.037
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	4.12	
Total Resource Benefit/Cost Ratio	2.61	
Program Characteristics		
Program Jurisdiction	Idaho	
Program Inception	2008	

Description

The Home Improvement Program, formerly the Attic Insulation Pilot, was launched on June 1, 2009. This program was added to Idaho Power's residential energy efficiency programs offerings based on the energy savings found through the pilot carried out during the summer and fall of 2008. Idaho Power contracted with Ecotope, Inc., a third-party contractor, to revise the energy-savings estimates based on results of the Attic Insulation Pilot. As well as helping reduce energy use throughout the year, this program also impacts the reduction of summer peak demand. The program pays an incentive of 15 cents per square-foot to Idaho residential customers in the Idaho Power service area for the addition of 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.

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. Insulation must be professionally installed by an insulation contractor. Incentives are paid on added attic insulation up to an R-50. New insulation must increase the R-value by R-10 or greater.

2009 Activities

Insulation contractor open houses were held throughout the Idaho Power service area in May 2009 to introduce contractors to the program. During the open houses, contractors were trained on program specifications and expectations. The open houses were held in Boise, Nampa, Pocatello, and Twin Falls.

A *Customer Connection* article introducing the program to Idaho Power customers was sent in the May 2009 billing statements. In addition, an informational bill stuffer was sent to Idaho residential customers in the July 2009 billing statements. The bill stuffer resulted in an increased volume of calls regarding program details and opportunities for further customer education regarding the program. A media campaign featuring print and radio ads was conducted in Salmon in August 2009.

The Home Improvement Program paid 1,188 incentives paid during 2009, surpassing the 2009 goal of 1,000 incentives paid.

Cost-Effectiveness

Savings assumptions for the attic insulation measure were established in accordance with the 2008 pilot and a savings simulation model by Ecotope, Inc. Their model work analyzed 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. The simulation model also provided results where the duct work in the home is not sealed, which lessens the energy-savings benefits. A 2,200 square-foot home was used as a prototype home size similar to ENERGY STAR® homes.

The results indicated that, on average, a home with sealed ductwork in the attic would save 1,247 kWh annually while a home with unsealed ductwork would realize annual energy savings of 1,127 kWh. Homes with no ductwork in the attic would save only 328 kWh based on cooling savings only. During 2010, Idaho Power will assess the impact of individual climate zones, electric heat savings, and the presence of duct-work in participants' homes.

Customer Satisfaction and Evaluations

Approximately 10 percent of projects in the Home Improvement Program are reviewed for QA purposes by third-party contractors. Idaho Power plans to monitor participation and is collecting data that will provide the basis for an overall impact evaluation and process evaluation. This program is scheduled to be fully evaluated in 2011 once enough program information, such as billing data, is available for the evaluation to proceed.

2010 Strategies

Plans for the upcoming year include a targeted direct mailing in March 2010 to approximately 70,000 customers throughout Idaho Power's service area. An informational bill stuffer is being planned for July 2010. A print campaign is planned for fall 2010.

Home Products Program

	2009	2008
Participation and Savings		
Participants (appliances)	9,499	3,034
Energy Savings (kWh)	1,638,038	541,615
Peak Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	\$498,980	\$245,219
Oregon Energy Efficiency Rider	\$12,283	\$5,541
Idaho Power Funds	\$50	\$100
Total Program Costs—All Sources	\$511,313	\$250,860
Program Levelized Costs		
Utility Levelized Cost (\$/kWh)	\$0.031	\$0.044
Total Resource Levelized Cost (\$/kWh)	\$0.051	\$0.082
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	2.72	
Total Resource Benefit/Cost Ratio	1.59	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2008	

Description

The Home Products Program, formerly the ENERGY STAR® Appliance Program, provides an incentive payment to residential customers for purchasing ENERGY STAR qualified appliances, lighting, or other products. ENERGY STAR is a government-backed program designating products as energy efficient. Appliances and products with ENERGY STAR must meet higher, stricter efficiency criteria than federal standards. ENERGY STAR washers must have a Modified Energy Factor of 1.72 or greater and a Water Factor of 8.0 or lower, the minimum qualifications for an ENERGY STAR qualified clothes washer.

The ENERGY STAR Appliance Program rolled out on April 1, 2008 for the company's Idaho customers and on May 21, 2008, for Oregon customers. Subsequently, to qualify, the washer must have been purchased after April 1, 2008, for customers in Idaho and after May 21, 2008, for customers in Oregon.

With the addition of ENERGY STAR qualified refrigerators, ceiling fans with light kits, light kits, and light fixtures, the expanded ENERGY STAR Appliance Program was renamed Home Products Program and launched on August 1, 2008.

Initially, the clothes-washer incentive was the only product offered under the original program. Current offerings and related incentives include clothes washers (\$50), refrigerators (\$30), 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 in the mail.

2009 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 tear-off forms, were distributed to nearly 100 retail stores. In addition, program modifications were delivered via letters sent directly to store managers.

Retail salespeople also assisted in promoting the program to their customers. Information gathered from a series of six questions on the customer incentive application form indicated salespeople are a proven, effective avenue for marketing the program.

Idaho Power promoted the program directly to residential customers via bill stuffers, community promotions, Idaho Power field staff, and other outreach activities. During 2009, bill stuffers detailing the program were mailed to all residential customers, one during the summer and one during the holiday season.

In addition, static-clings—small, sticky decals—were created and distributed to retailers for placement on qualifying clothes washers and refrigerators. The prominent focus for using clings was to highlight the respective incentive amounts.

An addition to the Home Products Program, in partnership with NEEA, was initiated in 2009 to provide an incentive to retailers who sell flat screen televisions that are 30 percent more energy efficient than the minimum ENERGY STAR standard (ENERGY STAR +30 percent). NEEA managed all aspects of the program, while Idaho Power, along with other Northwest utilities, provided funding. Idaho Power's funding amount was based on a percentage of the population of Idaho Power's residential customers compared to all customers in the Northwest. The incentives are paid to the retailer rather than the customer.

The purpose of paying incentives to retailers and manufacturers rather than the end consumer was 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 markets when incentive dollars are small per product, but has a high volume of sales. Only the retailers who signed contracts with NEEA will be involved; however, nearly all retail stores in Idaho Power's service area will have the opportunity to participate.

The Home Products Program exceeded the targets for 2009. Idaho Power paid 9,499 incentives during 2009, resulting in 1,638,038 kWh of savings. Incentives were issued for 6,181 clothes washers, 2,878 refrigerators, 408 light fixtures, 30 ceiling fans, and two light kits.

Cost-Effectiveness

In the preliminary cost-effectiveness analysis, Idaho Power identified clothes washers as the only cost-effective measure to offer in the Home Products Program. Idaho Power's savings and cost assumptions were derived from information provided from the NPCC's RTF. The data from the RTF included the measure life of 14 years, per-unit energy savings as a weighted average of combined Tier I and Tier II ENERGY STAR qualified clothes washers of 192 kWh, weighted incremental cost of \$104, and net-to-gross factor of 0.8. To calculate the value of the energy savings, Idaho Power used load shapes provided in the *Demand-Side Management Potential Study* conducted by Nexant, Inc. Detailed cost-effectiveness assumptions, metrics, and sources are located in *Supplement 1: Cost-Effectiveness*.

Since the launch of the program, the analysis has been updated with each new product offering to determine cost-effectiveness based on updated ENERGY STAR requirements and revised incremental costs.

Customer Satisfaction and Evaluations

On each incentive application, six customer- and product-related questions are asked. The information collected will be used to evaluate the program going forward. A process evaluation of the Home Products Program will take place during 2010.

2010 Strategies

Based on 2009 successes, the marketing strategy for 2010 will remain similar with only minimal adjustments and updates as needed. The Home Products Program will cross-promote with other Idaho Power programs and develop promotional materials. Idaho Power will continually review potential products for addition to the program during 2010 and beyond.

The partnership with NEEA regarding the flat screen television incentives will continue in 2010. Idaho Power plans to take a more active role in promoting the NEEA electronics initiative. Marketing for the program will take the form of educational pieces, as opposed to "take action" promotions, since the customer receives no monetary incentive for the purchase.

Similar to the clings created this year for clothes washers and refrigerators, Idaho Power will create collateral material for light fixtures and fans comparable to those created in 2009. Because clings cannot be placed directly on these products, the company will instead use floor clings and floor mats in 2010.

The company will investigate new products to include in the program. If additional measures are added, Idaho Power will redesign the current brochure.

In 2009, Idaho Power investigated out-sourcing the application processing to a third-party vendor. With the program's popularity and high volume, it had become impractical for the company to keep up with the current demand on an ongoing basis. After incorporating the third-party processing cost assumptions into the analysis, the program was determined to remain cost-effective. Following a competitive RFP process, a vendor was selected to process the applications and payments for the program. Idaho Power is currently in contract negotiations with the vendor.

Oregon Residential Weatherization

	2009	2008
Participation and Savings		
Participants (homes)	1	3
Energy Savings (kWh)	2,907	22,196
Peak Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	\$0	\$0
Oregon Energy Efficiency Rider	\$6,359	\$1,908
Idaho Power Funds	\$1,285	\$5,509
Total Program Costs—All Sources	\$7,644	\$7,417
Program Levelized Costs		
Utility Levelized Cost (\$/kWh)	\$0.203	\$0.025
Total Resource Levelized Cost (\$/kWh)	\$0.223	\$0.096
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	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. Upon 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.

2009 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 33 Oregon customers responded. Each of the 33 customers returned a card from the brochure indicating interest in a home energy audit, weatherization loan, or incentive payment. Twenty-three audits and responses to customer inquiries to the program were completed.

Idaho Power issued one rebate totaling \$425.29 for 2,907 kWh savings. The rebate and related savings was for ceiling insulation. There were no loans made through this program during 2009. Five customer responses were directed to Cascade Natural Gas because their heating source was gas. Four 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 always 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 2009, the only project competed under the Oregon Residential Weatherization program was a ceiling insulation program. The required CEL for insulation is \$1.19 per annual kWh saved, and the actual levelized cost of energy savings is 20 cents from the UC perspective and 22 cents TRC perspective, resulting in this program being considered cost-effective in 2009.

2010 Strategies

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

Rebate Advantage

	2009	2008
Participation and Savings		
Participants (homes)	57	107
Energy Savings (kWh)	247,348	463,401
Peak Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	\$43,954	\$79,547
Oregon Energy Efficiency Rider	\$5,571	\$11,341
Idaho Power Funds	\$0	\$0
Total Program Costs—All Sources	\$49,525	\$90,888
Program Levelized Costs		
Utility Levelized Cost (\$/kWh)	\$0.015	\$0.012
Total Resource Levelized Cost (\$/kWh)	\$0.029	\$0.025
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	5.71	
Total Resource Benefit/Cost Ratio	2.30	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2003	

Description

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

2009 Activities

During 2009, Idaho Power paid 57 incentives on new manufactured homes. The slow economy had a dramatic effect on all types of housing and contributed to a lower number of incentives than expected. Eight of Idaho Power's approximate 22 participating dealerships closed in 2009, many of which contributed to the applications in prior years.

New Rebate Advantage marketing materials were developed during the year, including a set of seven call-out cards, a direct-mail solicitation letter, and an article in the *Customer Connection* publication. The call-out cards identify the benefits of specific areas of the manufactured home and were placed in ENERGY STAR qualified model homes in 2009. The *Customer Connection* article was included in the late summer publication sent to all Idaho Power customers. The direct-mail letter was created to explain the Rebate Advantage program in greater detail. Additionally, Idaho Power CR visited each of the dealerships at least four times during 2009, answering questions and distributing materials.

Cost-Effectiveness

ENERGY STAR manufactured home ratings are used to determine the energy savings of this program. These savings vary by heating and cooling zone in which the home will be placed. In addition to varying by climate zone, savings also 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. No changes in cost-effectiveness assumptions occurred during 2009 and no manufactured home code changes have occurred that would require a shift in baseline efficiency standards. For detailed lists of savings by climate and housing options, see *Supplement 1: Cost-Effectiveness*.

Customer Satisfaction and Evaluations

Idaho Power did not conduct any surveys or research in 2009. Two surveys were conducted in late 2008, which helped shape and guide 2009 marketing efforts. Idaho Power was more involved with marketing the program in 2009 by directly educating the customer through call-out cards, informational articles, and direct-mail letters, rather than generally relying on salespeople to promote the program. A process evaluation of the Rebate Advantage program is scheduled for 2010.

2010 Strategies

Idaho Power plans to continue the Rebate Advantage program in 2010, explore new marketing methods, and promote the program using internal resources and externally at the dealership level. CRs will enhance relationships with dealerships by visiting each dealership 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. Idaho Power will continue to explore additional marketing strategies aimed directly at the end-consumer, such as the direct-mail letter developed in 2009 that is being sent to Idaho Power customers in spring 2010. The direct-mail letter will be sent to specific customers using the Claritas PRIZM segmentation methodology matched with company customer information. Several approaches are being studied, including profiling those that may be potential customers such as those who live in apartments or are current renters. Another analysis will be to assess the differing demographics between rural customers and those who live in more populated areas to understand the different customer profiles. The last approach will be to understand the demographic profile of those who have already made the choice to participate in the program. Targeted and focused

marketing will be key to maintaining or increasing program participation and delivering the appropriate message in the materials used. Idaho Power will track the effectiveness of this letter by cross-referencing the applications received against the list of customers who were mailed letters.

See Ya Later Refrigerator

	2009	2008
Participation and Savings		
Participants (homes)	1,661	n/a
Energy Savings (kWh)	1,132,802	n/a
Peak Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	\$297,587	n/a
Oregon Energy Efficiency Rider	\$7,815	n/a
Idaho Power Funds	\$0	n/a
Total Program Costs—All Sources	\$305,402	n/a
Program Levelized Costs Ratios		
Utility Levelized Cost (\$/kWh)	\$0.041	n/a
Total Resource Levelized Cost (\$/kWh)	\$0.041	n/a
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	1.95	
Total Resource Benefit/Cost Ratio	1.95	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2009	

Description

The See Ya Later Refrigerator program, previously the Refrigerator Recycling Program during the planning phase in 2008, was launched on June 1, 2009. The program acquires energy savings through the removal of refrigerators and stand-alone freezers in 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 the removal of the unit. Although all qualified units are collected, the program is targeting older, extra units for maximum savings, with a program target of achieving up to 2.8 million kWh in energy savings annually.

Prior to program launch in 2009, Idaho Power studied the cost-effectiveness and evaluated different mechanisms for running a refrigerator recycling program. Idaho Power explored using a third-party contractor to manage the program as well as a company-managed option using community recycling programs. The third-party option was chosen, with input from EEAG, as it provided for better verification of savings and ease of participation. Not all community recycling programs offer the same level of customer support or price structure. The third-party option ensured the program would be available geographically to all customers, and all customers would receive the same service.

2009 Activities

Program development occurred during the first half of 2009 and included securing a vendor contract, developing the program, and creating the internal tracking systems and processes. An RFP for the third-party vendor was issued in January 2009. There are two major companies that provide this program for utilities nationwide. One contractor, JACO Environmental, Inc. (JACO), responded to the RFP. In February 2009, JACO was selected to conduct the program for Idaho Power. This contractor delivers utility refrigerator recycling programs throughout the nation, including many Northwest utilities and could leverage its experience and systems to implement Idaho Power's program.

Idaho Power contracts with JACO to provide most services for this program. Idaho Power provides participant confirmation, supplemental marketing, and internal program administration. Marketing activities included a combination of public relations events to launch the program. Media was invited to witness the removal of a unit from a customer home. On-going marketing included newspaper ads, bill inserts, *Customer Connection* articles, Web site content, promotion at events, and word-of-mouth.

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 of unit collections.

JACO crews pick up units from customers' homes then transport, dismantle, and ship 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.

Cost-Effectiveness

The cost-effectiveness model for the See Ya Later Refrigerator program is based on the assumption that 682 kWh of annual savings would be achieved over an average eight-year remaining measure life of a decommissioned refrigerator or freezer. The corresponding gross savings cited by Nexant, Inc., in the *Idaho Power Demand-Side Management Potential Study* is 1,948 kWh. The 682 kWh is a realized savings estimate per unit of 35 percent of the 1,948 kWh savings and accounts for the potential that an estimated 65 percent of recycled units are primary and secondary refrigerators that may be replaced by customers, which translates into minimal savings for those customers. Data collected for each unit picked up in 2009 include customer-reported reason for removal, location of unit, primary use of unit, and unit replacement plans indicated that approximately 50 percent of units were at risk of being replaced by the customer. Although the 50 percent reported number is not as high of a replacement rate as Nexant's assumption of 65 percent, the data collection did support the reporting of a net, or realized, annual savings number for refrigerator recycling instead of a gross savings.

Another unique cost-effectiveness consideration for the See Ya Later Refrigerator program was whether to estimate and include costs incurred by customers participating in the program. While all customers will have their own unique set of circumstances that will determine the cost of their time to participate in the program, Idaho Power initially modeled the program at \$60 per customer to account for lost work time and wages required to accommodate the appointment to pick up the unit. Based on the flexible pick-up times and the wide range of customer circumstances, the customer costs are now assumed to be

zero for annual reporting. Detailed cost-effectiveness of assumptions and sources are found in *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 2009 unit data showed that 27 percent of units the program picked up were stand-alone freezers, and 73 percent of the units were refrigerators. Fifty-six percent of the units were secondary, 23 percent primary, and 21 percent were unknown. Forty-eight percent of customers intend to replace the unit removed; however, national data show that 44 percent of units that are displaced or discarded are used elsewhere. The average vintage of units collected was 1980, with 67 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 2009, this translated into over 226,170 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. For example, enrollments peaked during July and August, in association with the July bill insert and the August *Customer Connection* newsletter article.

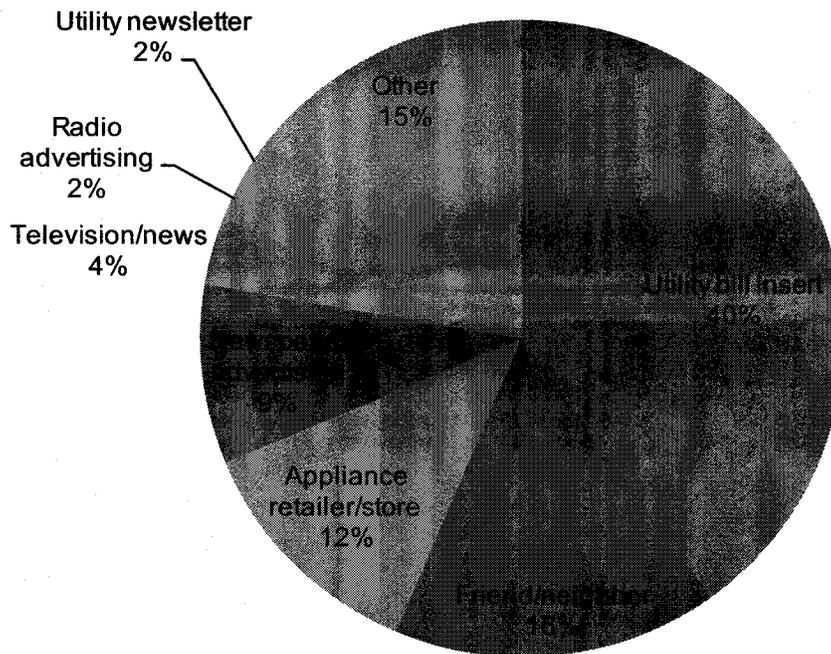
Results of customer tracking information indicate 41 percent of customers report learning of the program through the July bill inserts. A portion of these customers reporting bill inserts may also be referring to the article appearing in the *Customer Connection* newsletter issued in August, which is an insert to the bill as well. Seventeen 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 10 percent of enrollments. Eighty percent of customers who enroll use the 1-866 telephone number. Twenty percent use the online enrollment form.

Data on the timing of customer enrollments demonstrates the value of ad hoc marketing activities. A spike in enrolments appears on October 19. Closer examination of these enrollments reveals nearly 50 percent were from the Canyon County area. The Idaho Power CRs in that area reported giving a presentation to the local health department the day before. It is likely this spike in enrollments is a direct result of this outreach.

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 5 indicates information sources and percentage of responses regarding the 1,661 customers reporting hearing about the program through particular sources. The category "Other" includes sources such as utility company

Web site, community event, electric utility office, marketing services, repeat customer, truck ad, Web Internet search, Web Internet advertisement, and unknown sources.

Figure 5. How Customers Heard about the See Ya Later Refrigerator Program



2010 Strategies

Idaho Power plans to continue implementing the program and managing the contract with JACO. Program marketing will use proven venues, such as bill inserts, customer newsletters, print ads, and Web banner ads on newspaper Web sites. The company will add additional marketing as opportunities arise.

The media plan for 2010 includes newspaper ads, bill inserts, customer newsletters, including the *Customer Connection* and the *A/C Cool Credit Newsletter* pending space available, and print ads. Digital media-pay-per-click ads will be on Google all year. The company will continue promotion at energy efficiency and community outreach events and on the Idaho Power Web site.

Weatherization Assistance for Qualified Customers

	2009	2008
Participation and Savings		
Participants (homes/non-profits)	437	452
Energy Savings (kWh)	4,678,815	4,138,142
Peak 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	\$1,294,862	\$1,419,475
Total Program Costs—All Sources	\$1,294,862	\$1,419,475
Program Levelized Costs		
Utility Levelized Cost (\$/kWh)	\$0.021	\$0.026
Total Resource Levelized Cost (\$/kWh)	\$0.035	\$0.033
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	2.64	
Total Resource Benefit/Cost Ratio	1.80	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	1989	

Description

The WAQC program provides funding for the installation of cost-effective weatherization measures in qualified owner-occupied and rental homes that are electrically heated. In 2009, qualified households included those with incomes up to 160 percent of the federal poverty level guidelines. Enhancements enable 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 housing nonprofit organizations that serve special-needs populations.

WAQC is modeled after the U.S. 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. Idaho Power, in conjunction with Community Action Partnership (CAP) agencies in the Idaho Power service area, serves as the administrator 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 upon United States Census data of qualifying household income within each CAP agency's geographic area. The CAP agencies oversee local weatherization crews and contractors, providing implementations 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 receiving Idaho Power funding must be electrically heated.

Energy-saving home measures provided by this program include 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, Idaho Power 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 in order to help facilitate the effective performance of those measures yielding energy savings.

Energy saving nonprofit building measures provided by this program include 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 2008 Annual Report*, April 1, 2009, located in *Supplement 2: Evaluation*.

2009 Activities

During 2009, CAP agencies weatherized 423 electrically heated homes in Idaho and 10 in Oregon, totaling 433 weatherized homes. Annual energy savings were 4,431 MWh for Idaho and 114 MWh for Oregon. WAQC funded the weatherization of four buildings housing nonprofit organizations that serve special needs populations in their Idaho communities. The annual energy savings from the nonprofit weatherization was 132 MWh.

Cost-Effectiveness

During an initial audit of a potential home, the auditor completes an energy savings audit program known as EA4 (Energy Audit 4). The EA4 audit program is used by state weatherization programs and approved for use by the U.S. DOE. The EA4 compares efficiency of measures prior to weatherization to the efficiency after the proposed improvement, which is then translated into a savings to investment ratio (SIR). 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. In addition to the individual measure SIR, the entire home weatherization job is required to show a SIR of 1.0 or higher. The whole job SIR accounts for measures that preserve the life of the energy-saving measures, but provide no actual savings. Cost-effectiveness details are located in *Supplement 1: Cost-Effectiveness*. For further details regarding WAQC, the most recent program report, *Weatherization Assistance for Qualified Customers 2008 Annual Report*, dated April 1, 2009, is located in *Supplement 2: Evaluation*.

Customer Satisfaction and Evaluations

The Idaho Power program specialist participated in the Idaho state peer review process, which involved peer agency weatherization crews within the state reviewing homes weatherized by each of

the agencies. Results show all CAP agency weatherization departments are weatherizing in accordance to federal guidelines.

2010 Strategies

Idaho Power will continue program management of WAQC. The company is involved with the Policy Advisory Council, which 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.

Idaho Power funding helps CAP agencies leverage their federal American Recovery and Reinvestment Act funding as well as their U.S. DOE weatherization funds.

Weatherization Solutions for Eligible Customers

	2009	2008
Participation and Savings		
Participants (homes)	41	16
Energy Savings (kWh)	211,720	71,680
Peak Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	\$160,459	\$51,670
Oregon Energy Efficiency Rider	\$0	\$0
Idaho Power Funds	\$2,536	\$1,138
Total Program Costs—All Sources	\$162,995	\$52,807
Program Levelized Costs		
Utility Levelized Cost (\$/kWh)	\$0.059	\$0.055
Total Resource Levelized Cost (\$/kWh)	\$0.059	\$0.050
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	1.76	
Total Resource Benefit/Cost Ratio	1.80	
Program Characteristics		
Program Jurisdiction	Idaho	
Program Inception	2008	

Description

Weatherization Solutions for Eligible Customers is an energy efficiency program designed to serve Idaho Power residential customers who are slightly above poverty level and, therefore, do not financially qualify for the company's larger weatherization program, WAQC. The program 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.

2009 Activities

The 2009 program started in March with Home Energy Management—LLC (HEM-LLC), the contractor who administers the program throughout Idaho Power's southern region. The total budget for the program was \$200,000, which includes a 10 percent administrative fee for HEM-LLC. Qualifying guidelines for the year were between 161 percent and 250 percent of the federal poverty level.

By year-end, HEM-LLC weatherized 41 electrically heated homes of eligible Idaho Power customers, at no cost to the customer. Energy savings achieved was 211,720 kWh/year, with an average home saving 5,164 kWh/year. Total costs were \$160,078, with an average job production cost of \$3,549. Nineteen single-wide manufactured homes and 22 single-family homes were weatherized in 2009.

Marketing of the program was done several ways without additional costs to the program. HEM-LLC advertised the program in Idaho Power's southern region by creating a program flyer that employees distributed throughout mobile home parks and at specific property management realtor offices. The flyers were also handed out at community events like the third annual CAP event and at events where HEM-LLC had a booth. Flyers were also left with previous customers who spread information about the program to families and friends who might qualify. Word-of-mouth became a good marketing strategy for the program in 2009.

Cost-Effectiveness

During an initial audit of a potential home, the auditor completes an energy-savings audit program known as EA4. The EA4 audit program is used by state weatherization programs and approved for use by the U.S. DOE. The EA4 compares efficiency of measures prior to weatherization to the efficiency after the proposed improvement, taking into consideration the condition of the home as well as quality and type of construction. If the EA4 computes a SIR of 1.0 or higher, HEM-LLC is 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. The project SIR includes measures that preserve the life of the energy-saving measures but provide no actual SIR.

Idaho Power CRs in the southern region verify installed measures in homes of participating customers using actual job sheets submitted by HEM-LLC. 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 HEM-LLC, which 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 is consistent with standard methodology used in other programs, though no deemed measures savings are used in the analysis as actual average annual savings are calculated for each measure. 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*.

Production costs totaled \$145,526.39 in 2009. Table 6 shows the program's measures, instances installed, kWh savings and the cost of measures.

Table 6. 2009 Weatherization Solutions for Eligible Customer's Individual Measure Breakdown

Measure	Instances installed	kWh Savings	Cost of measures
Windows	16	16,671.00	\$11,656.81
Doors	11	8,474.73	\$5,894.41
Wall Insulation.....	5	8,094.94	\$1,800.44
Ceiling Insulation.....	30	49,379.35	\$29,869.37
Floor Insulation.....	29	46,854.45	\$34,286.94
Venting.....	21	0.00	\$1,823.48
Infiltration	16	21,713.75	\$6,764.65
Ducts	18	27,190.75	\$7,111.15
Health and Safety.....	35	0.00	\$8,723.88
Water heater	14	2,905.42	\$657.44
Pipes.....	14	1,921.32	\$3,183.15
Furnace repair.....	9	0.00	\$2,501.79
Furnace replacement.....	5	21,947.04	\$20,927.07
CFL install.....	41	6,566.96	\$1,159.36
Audit invest	41	0.00	\$9,166.45
Total.....		211,719.71	\$145,526.39

Customer Satisfaction and Evaluations

Of the 41 participants, 37 provided written positive feedback. Four customers provided no feedback to the program. All customers who did provide feedback also included positive remarks about Idaho Power's contractor, HEM-LLC.

An elderly woman and disabled spouse living in a single family home wrote, "I would like to thank Idaho Power for insulating our home. We have overhead electric heat and I'm sure this will help reduce our power bill in the future and we will have a much warmer home this winter. (sic)" She also commented that the crew was very professional and polite.

A young mother with children reported, "We appreciate the time and care to assist home owners who need the help that Idaho Power has provided for the community."

A family of four said, "We appreciate what Idaho Power did for our home and we would like to express our appreciation by saying thank you! We could not have done this ourselves due to our financial stance, so thank you very much. (sic)"

A single elderly woman said, "Thank you for the great job you did on my home. I could never had been able to pay for it myself. Thank you again."

The parents of a small family said, “I would like to sincerely thank Idaho Power and HEM-LLC for choosing our home to make more energy efficient. I have a five-year-old diabetic and we can greatly use our savings.”

Of the customers in homes weatherized through the program, 24 reported an elderly customer living in the home, and 17 reported either being disabled or that a person living in the home was disabled.

2010 Strategies

Idaho Power plans to continue offering this program in the southern area in 2010. HEM-LLC is under contract to weatherize 40 homes in Idaho Power’s southern region service area with an annual average cost of \$4,500. Eligible customers will include Idaho Power customers who heat their homes electrically and earn an income between 175 percent and 250 percent of the federal poverty level. Customers who are either purchasing or renting their homes may be eligible. Idaho Power plans to save an average of 6,000 kWh per weatherized home per year for a total energy savings of 240,000 kWh annually.

As in 2009, 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. HEM-LLC employees will use this list of denied customers at CAP agencies to market the Weatherization Solutions for Eligible Customers program. HEM-LLC will again distribute flyers explaining the program and qualifying guidelines to customers heating their homes with electricity provided by Idaho Power in the southern region. As of mid-January 2010, HEM-LLC reports having a list of customers interested in the program and will begin interviewing immediately.

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COMMERCIAL/INDUSTRIAL SECTOR OVERVIEW

Description

The commercial and industrial sector consists of over 64,000 customers. In 2009, new commercial customers increased by 224, an increase of 0.3 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 27.7 percent of billed sales. Industrial customers and special contract customers are Idaho Power's largest individual energy consumers. The approximately 125 industrial customers account for about 22.5 percent of Idaho Power's system sales.

Programs

Table 7. 2009 Commercial/Industrial Program Summary

Program	Participants	Total Costs		Savings		
		Utility	Resource	Annual Energy (kWh)	Peak Demand (MW)	
Demand Response						
FlexPeak Management	33 sites	\$528,681	\$528,681	n/a	19.3	
Total		\$528,681	\$528,681		19.3	
Energy Efficiency						
Building Efficiency	72 projects	\$1,327,128	\$2,356,435	6,146,139	1.3	
Easy Upgrades	1,224 projects	\$3,325,505	\$10,076,237	35,171,627	6.1	
Holiday Lighting	32 projects	\$33,930	\$72,874	142,109	n/a	
Custom Efficiency	132 projects	\$6,061,467	\$10,848,123	51,835,612	6.7	
Total		\$10,748,030	\$41,459,875	93,295,486	14.1	

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

Three major programs targeting different energy efficiency projects are available to commercial/industrial customers in the company's Idaho and Oregon service areas. Easy Upgrades offers a menu of typical retrofit measures with prescriptive incentive amounts for lighting, HVAC, motors, 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 more complex projects to improve the efficiency of their electrical systems or processes. Incentive levels are 70 percent of the project cost or 12 cents per kWh for first-year savings, whichever is less.

The Holiday Lighting program encourages commercial customers to purchase more efficient LED holiday lights. Idaho Power continues to offer the Oregon Commercial Audits program to medium- and small-commercial customers.

In 2009, Idaho Power launched FlexPeak Management, a demand response program offered to Idaho 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.

A new energy efficiency measure, Green Rewind, was made available to Idaho Power's agricultural, commercial, and industrial customers in 2009. The sectors' combined 40 Green Rewind motors achieved a total savings of 229,285 kWh in 2009, with 13 commercial/industrial sector motors contributing 33,399 kWh and 27 irrigation sector motors contributing 195,886 kWh.

This measure maintains the motor's original efficiency and ensures an efficient use of electricity to run a motor. If a Green Rewind is not performed, the motor is typically rewound to a lower efficiency, or the owner replaces the motor with an efficient design approved by the Energy Policy Act or a National Electrical Manufacturers Association (NEMA) Premium[®] efficient design. In July 2007, the RTF approved the Green Motors Practices rewinding as an energy efficiency measure and approved a table of deemed savings.

A contract was established in March 2009 with the Green Motors Practice Group (GMPG), a non-profit organization that pioneered Green Rewinds, via a process that ensures that industry best-practices are used when motors are rewound.

Eleven 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 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 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.

Also in 2009, Idaho Power contracted with the Integrated Design Lab (IDL) in Boise to accomplish the following specific tasks. The IDL created an Energy Use Index database from Idaho Power customers. They analyzed the quality of commissioning services in the Treasure Valley, identified training opportunities, and reported results to Idaho Power in January 2010. The IDL developed and provided 17 educational sessions for the local design community. Additionally, the IDL organized a building simulation users group and facilitated nine monthly meetings to help promote and enhance the local simulation skills. They conducted a post-occupancy evaluation to study customer satisfaction with technology incentives through the commercial energy efficiency programs and reported results to Idaho Power in January 2010. In addition, the IDL evaluated and reported on the current market conditions for system sizing of package rooftop HVAC units, identified energy-savings potential associated with right-sizing, and developed educational material from the results. The IDL identified and reported on key energy efficiency resources, events, and technologies through monthly newsletters and blogs. Lastly, the IDL performed measurement and verification analyses on four measures offered in the Building Efficiency program.

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 2009 surveys, 54 percent of Idaho Power large commercial and industrial customers surveyed in 2009 for the Burke Customer Relationship survey indicated Idaho Power was meeting or exceeding their needs in offering energy efficiency programs. Forty-six 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-two percent of respondents indicated Idaho Power was meeting or exceeding their needs with encouraging energy efficiency with its customers. The results from surveying Idaho Power's small business customers indicated that 36 percent of these customers said that 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. Forty-nine percent of respondents indicated Idaho Power was meeting or exceeding their needs with encouraging energy efficiency with its customers.

Plans are underway in 2010 to review the lighting programs offered to commercial/industrial sector customers. The review is intended to analyze program changes that would enhance the current lighting options available to customers. Potential changes would include a more seamless application process for customers. Additional program changes would focus on internal process improvements.

Building Efficiency

	2009	2008
Participation and Savings		
Participants (projects)	72	60
Energy Savings (kWh)	6,146,139	6,598,123
Peak Reduction (MW)	1.3	1.0
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	\$1,300,466	\$1,006,025
Oregon Energy Efficiency Rider	\$26,323	\$47,550
Idaho Power Funds	\$339	\$1,434
Total Program Costs—All Sources	\$1,327,128	\$1,055,009
Program Levelized Costs		
Utility Levelized Cost (\$/kWh)	\$0.024	\$0.017
Total Resource Levelized Cost (\$/kWh)	\$0.043	\$0.028
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	2.68	
Total Resource Benefit/Cost Ratio	1.76	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2004	

Description

The Building Efficiency program enables customers in Idaho Power's service area in Idaho and Oregon 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.

Through the Building Efficiency program, Idaho Power is a primary sponsor of the Boise IDL, which provides technical assistance and training seminars to local architects 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.

2009 Activities

In 2009, Idaho Power eliminated the Premium Performance Windows incentive due to lack of interest and participation. In its place, the Exterior Window Shading incentive was implemented, which

customers had shown interest in previously. Idaho Power also updated the incentive payout for Demand Controlled Ventilation. It is now paid on the flow rate of outside air controlled by the carbon dioxide (CO₂) sensor, resulting in a lesser incentive. Formerly, it was based on the rated cubic feet per minute (CFM) of the unit. This change was made to ensure the cost-effectiveness of the measure.

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.

The Building Efficiency program completed 72 new construction, major renovations, and major additions projects in 2009, resulting in 6,146,139 kWh in energy savings. Idaho Power paid \$1,070,224 in incentives for completed projects in 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. Because the measures are being installed in new buildings, there is no baseline 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 kW reduction as the unit being used.

The basic assumptions for cost-effectiveness of the Building Efficiency program are unchanged from previous DSM annual reports. In 2010, Idaho Power plans to review energy-savings impacts from recent evaluation activities to identify if changes to input assumptions are appropriate. Complete measure level details for cost-effectiveness for the Building Efficiency program can be found in *Supplement 1: Cost-Effectiveness*.

Customer Satisfaction and Evaluations

In 2009, Idaho Power contracted with the IDL to provide some evaluation research with regard to the Building Efficiency program. Building Efficiency underwent an impact evaluation process to provide measurement and verification of four measures offered in the program. These measures were daylight photo controls, air-side economizers, energy management control system, and demand-control ventilation. These measures were selected for evaluation because the calculated energy savings were less

certain than other measures offered in the program. The measurement and verification reports are attached in *Supplement 2: Evaluation*.

In their analysis of air-side economizers, the IDL determined that impacts of installing the measure results in energy savings of approximately 446 kWh per year per ton. For daylight photo controls, the IDL's analysis resulted in energy savings of approximately 51 percent during the study period. The IDL's study of energy management systems indicates that this measure saves an estimated 1.49 to 2.43 kWh per square-foot annually.

The IDL report on the demand-control ventilation measure identified opportunities for Idaho Power to enhance the energy-savings impact through increased efforts to educate mechanical engineers, building operators, code officials, and building commissioning.

Idaho Power plans to review the IDL's evaluations and will make appropriate program changes as needed. The Building Efficiency program is scheduled for a process evaluation in 2010.

The IDL also performed a post-occupancy evaluation of the program. The post-occupancy evaluation was undertaken to gather useful information about occupant satisfaction related to energy efficiency measures. This study utilized an online survey tool where respondents answered questions relating to environmental satisfaction. Results of the study indicate that some measures offered in the Building Efficiency program significantly increase environmental satisfaction among building users, while other measures do not result in as high of levels of environmental satisfaction. The final report of this evaluation is included in *Supplement 2: Evaluation*.

2010 Strategies

In 2010, Idaho Power will evaluate program changes or modifications to be implemented beginning 2011. Code changes for 2011 and how they will impact the measure savings will be evaluated along with the current participation levels for each measure. Idaho Power will incorporate customer and customer service feedback to simplify incentive payment calculations and potentially add more options.

Custom Efficiency

	2009	2008
Participation and Savings		
Participants (projects)	132	101
Energy Savings (kWh)	51,835,612	41,058,639
Peak Reduction (MW)	6.7	5
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	\$5,816,305	\$3,948,617
Oregon Energy Efficiency Rider	\$236,910	\$86,858
Idaho Power Funds	\$8,252	\$10,196
Total Program Costs—All Sources	\$6,061,467	\$4,045,671
Program Levelized Costs		
Utility Levelized Cost (\$/kWh)	\$0.013	\$0.011
Total Resource Levelized Cost (\$/kWh)	\$0.024	\$0.043
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	5.37	
Total Resource Benefit/Cost Ratio	2.05	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2003	

Description

The Custom Efficiency program targets energy savings through the implementation of 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.

2009 Activities

The Custom Efficiency Program remains largely unchanged in 2009. Incentive levels for the Custom Efficiency program remain at 70 percent of the project cost, or 12 cents per kWh first-year savings, whichever is less.

Key components in facilitating customer implementation of energy efficiency projects are facility energy-auditing, customer technical training, and education services. Because the link between energy audits and the completion of projects is historically significant, Idaho Power continued expanding the number of contractors available for customer-scoping audits to six companies in 2009. 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 five technical training classes were completed in 2009. Topics included compressed air, fan systems, pump systems, and refrigeration. The level of attendance at these classes remains high with an average of approximately 24 customers in attendance at each workshop.

The Custom Efficiency program has achieved a high service area penetration rate. Through 2009, approximately 51 percent of the large power service customers had submitted an application for a project. Idaho Power engineers have met with another 34 percent of the customers to discuss energy efficiency programs as well as opportunities within customer facilities.

A total of 132 projects were completed in 2009 by 87 companies, including 16 Oregon projects from eight different companies. Program energy savings increased in 2009 by 26 percent over the prior year, from 41,059 MWh to 51,836 MWh. Completed projects increased by 31 percent in 2009. To ensure good customer service and facilitate program growth, Idaho Power added a third engineer to the Custom Efficiency program staff in 2009.

The minimum project size requirement increased from an annual 20,000 kWh to 100,000 kWh in 2008. This change was expected to reduce the number of lighting projects submitted through the Custom Efficiency program in 2009. Ninety-six lighting projects were completed in the Custom Efficiency program during 2009, an increase of 38 projects over 2008. Many of these projects were already submitted in 2008 under the smaller minimum project size requirement and completed in 2009.

As stated in the sector overview, a new energy efficiency measure, Green Rewind, was made available to Idaho Power's Custom Efficiency customers in 2009. This measure maintains the motor's original efficiency and ensures an efficient use of electricity to run the motor. There were 13 Green Rewind motors in the commercial/industrial sector in 2009.

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.....	88	25,450,177
Fan.....	4	378,542
Compressed Air.....	7	6,322,925
Pump.....	8	2,328,948
Refrigeration.....	11	8,933,009
Other.....	14	8,388,612
Total	132	51,802,213^(a)

^(a)Does not include Green Rewinds

Cost-Effectiveness

The application process requires inputs that include costs of materials and labor to install energy-saving equipment and energy use before and after measure installation. Payback is calculated with and without incentives along with the estimated dollar savings for installing energy efficiency measures. As projects progress, any changes are used to re-calculate energy savings and incentives before the incentives are paid.

Customer Satisfaction and Evaluations

Each project in the Custom Efficiency program is thoroughly reviewed to ensure that energy savings are achieved. The energy savings are calculated by Idaho Power engineering staff or a third-party consultant. The verification process requires that end-use measure information 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.

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 2009, NEEA completed a MPER on the Industrial Efficiency Alliance (IEA). This report quantifies market penetration of Continuous Energy Improvement (CEI), utility support of CEI, and energy savings associated with the IEA effort. This report is included in the CD *NEEA Market Effects Evaluations* included with *Supplement 2: Evaluation*.

Idaho Power plans to conduct a process evaluation of the Custom Efficiency program in 2010.

Because the customers who participate in the Custom Efficiency program are some of Idaho Power's largest customers, program managers or major customer representatives (MCR) solicit customer satisfaction feedback for the Custom Efficiency program. This is authenticated in customers' willingness to participate in the Custom Efficiency program posting the customer's *Success Stories* on the Idaho Power Web site. At the end of 2009, there were six *Success Stories* posted. An example of an upcoming posting in 2010 is the success story regarding a Custom Efficiency project completed during 2009. Idaho Power provided Boise State University (BSU) with a \$47,608 incentive in 2009 for energy efficiency upgrades. The energy-saving upgrades reduces BSU's costs and saves approximately \$12,659 in electric bills per year. The estimated total savings of the project was 393,603 kWh per year. BSU's architectural and engineering services project manager said, "Idaho Power and their energy efficiency staff are great to work with. The incentive check we received from them gave us the opportunity to do things we couldn't have done otherwise."

2010 Strategies

In 2010, 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 MCRs 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.

Easy Upgrades

	2009	2008
Participation and Savings		
Participants (projects)	1,224	685
Energy Savings (kWh)	35,171,627	25,925,391
Peak Reduction (MW)	6.1	5
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	\$3,213,388	\$2,922,340
Oregon Energy Efficiency Rider	\$108,533	\$52,556
Idaho Power Funds	\$3,584	\$17,364
Total Program Costs—All Sources	\$3,325,505	\$2,992,261
Program Levelized Costs		
Utility Levelized Cost (\$/kWh)	\$0.011	\$0.013
Total Resource Levelized Cost (\$/kWh)	\$0.032	\$0.043
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	6.16	
Total Resource Benefit/Cost Ratio	1.97	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2006	

Description

The Easy Upgrades program began in 2007 and has continuously increased participation and energy savings since that time. The objective of the program is to encourage commercial and industrial customers in Idaho and Oregon to implement energy efficiency retrofits by offering incentives up to \$100,000 per site. 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’s 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 service representative. 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. Upon 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.

2009 Activities

Since the Easy Upgrades program began, Idaho Power has made a commitment to its trade allies and contractors to attempt to alter this program only every two years. The company's trade allies or contractors are significant partners in making this program successful. They are the primary marketing agent, often completing the forms necessary for the customers to receive incentives, and encourage customers to energy-efficient equipment whenever possible. If the contractors can depend on program stability with consistent timing between program changes, they can more effectively promote the program and maintain high credibility with customer. Since 2009 was Easy Upgrade's third year, Idaho Power made significant changes in contrast to offerings during 2007 and 2008. The modifications to the program occurred in four major categories: 1) program rules, 2) lists of eligible measures, 3) incentive levels for some measures, and 4) application forms. Program changes took effect in January 2009.

Regarding changed program rules, only projects completed within the past six months are now eligible for incentives. The rules for waste disposal companies have changed, resulting in the companies not being eligible for pass-through payments. The measures in five categories were modified, with several measures being added based on information from program participants; feedback from customers, contractors, and trade allies; or due to technical or product changes. These measure changes were in lighting, HVAC, building shells, plug load, and grocery refrigeration.

Lighting

Lighting projects with high output (HO) and very high output (VHO) lamps are not eligible for the "delamping" bonus. Low wattage T8 lamps, 30 watts (W) or less, were added to the available measures. Four- or six-lamp T5 HO fixtures were split into two, distinct measures to allow for different incentive levels. The metal halide lighting measures were re-categorized, auto-off switch incentives were combined into one measure, and CFL measures were added for larger wattage lamps and hard-wired fixtures.

HVAC

The efficient Packaged Terminal Air Conditioner (PTAC), Packaged Terminal Heat Pump (PTHP), automated control system optimization reprogramming, and lodging room A/C occupancy controls were added to the list of available measures.

Building Shells

Insulated roll-up doors were added and high-speed automatic doors, restricted to cold storage facility applications, were added to the program.

Plug Load

One, two, and three door commercial solid-door refrigerators and commercial solid-door freezers options were added to the program. High efficiency ice makers were added with two different incentive levels based on capacity. They were split at greater or less than 200 pounds per day.

Grocery Refrigeration

Grocery refrigerator measures were modified with two changes, incentives for electronic fluorescent ballast for refrigerated case lighting were discontinued and LED lighting for refrigerated cases was added to the available measures.

Incentive levels were adjusted for measures in five categories, lighting, HVAC, building shell, plug load, and grocery refrigeration. The incentives were changed to make them more closely align to the same measures offered in custom projects where the actual costs and savings are used to calculate the incentives or to be consistent with the savings calculated using the hours-of-use or savings-per-square-foot as supplied on customer applications. Specific measure and incentives are included in *Supplement 1: Cost-Effectiveness*.

Based on input from customers, trade allies, and program staff, changes were made to some of the application forms and procedures. The Idaho Power Web site was modified to make incentive applications easier and more streamlined for customers and program staff. Additionally, the Lighting Savings/Incentive Calculator was revised to help customers and potential participants determine the benefits and payback period of potential lighting projects.

Enhancements were made to the Web site, including the addition of an auto-response e-mail address function. Through this function, customers and potential customers can obtain basic program information. Program marketing during 2009 continued to consist of distributing program brochures, flyers, and Frequently Asked Questions (FAQs), and promoting the program to Idaho Power's trade allies.

Presentations were made to various business and professional groups. Idaho Power sponsored events, including the Building Owners and Managers Association International (BOMA). The Easy Upgrades program was promoted at other events including the Commercial Real Estate Symposium, American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) technical conference, and the Idaho Energy & Green Building Conference.

Two sets of trade ally workshops were offered again in 2009. Each set included one workshop per Idaho Power region. The five January workshops focused on the program changes from 2008 to 2009. The fall series of workshops focused on reviewing customer and trade ally feedback.

Cost-Effectiveness

When the program was launched in 2007, Idaho Power offered a menu of incentives for 129 retrofits measures designed to save energy in lighting, HVAC, motors, building shell, plug loads, and grocery refrigeration. Idaho Power used two methods to calculate kWh savings impacts for program measures. When valid data was available and applicable to Idaho Power's service area, Idaho Power used deemed-saving values on a per-measure level. These savings were compiled from a variety of sources

around the region, including established sources such as RTF and CEE, as well as the Lighting Design Lab (LDL), PECEI, National Grid, United Illuminating, and Entergy Corporation. For measures in which deemed savings were not available, Idaho Power calculated savings using engineering estimates on a per-measure level using specific inputs, such as building operating hours, square footage, kW reduction, tonnage size, or other appropriate unit measure. For the majority of lighting measures, the energy savings were calculated based on 3,000 operating hours. Cooling measures were calculated using 700 operating hours.

As highlighted in the 2009 Activities section, the program experienced several changes in 2009 with modifications in each of the categories as well as addition and removal of several menu items. To date, Easy Upgrades offers incentives on 143 measures. For a majority of the measures, deemed savings have been updated with data provided in the *Demand-Side Management Potential Study* from Nexant.

In anticipation of program changes scheduled to be made in 2011, Idaho Power plans to analyze each measure for cost-effectiveness and look into ways to simplify the program's processes and reporting in 2010. This will include updating savings and cost assumptions, and taking into consideration the upcoming federal changes in lighting standards. For the current detailed cost-effectiveness assumptions, metrics, and sources, see *Supplement 1: Cost-Effectiveness*.

Customer Satisfaction and Evaluations/Results

As part of the ongoing evaluation process, surveys were solicited from program participants a few weeks after sending their incentive payments in order to collect customers' feedback on the program and the products they installed. Almost 60 percent of the 400 participants in the Easy Upgrades program in 2009 who responded to a customer survey said they learned about the program "from a contractor, supplier, or vendor." Another 20 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 Upgrade program, 73 percent "strongly agreed" that Idaho Power staff provided accurate and helpful information; 79 percent "strongly agreed" that Idaho Power staff treated them in a fair and friendly manner; 53 percent "strongly agreed" that the Easy Upgrade incentive application forms were easy to follow; 76 percent "strongly agreed" that their application was processed in a timely manner; 80 percent "strongly agreed" that they received excellent service from Idaho Power; and 81 percent "strongly agreed" that their experience with Idaho Power employees was positive.

Almost 70 percent of customers said that the energy-savings upgrades made to their facility were performing "very well," and another 29 percent said their equipment was performing "good." Seventy-nine percent of participants also said they were "very likely" to recommend the Easy Upgrades program to others, and 76 percent said they "strongly agree" that they received an excellent value from Idaho Power through the Easy Upgrades program.

In 2009, Idaho Power designed and administered an electronic survey for trade allies. Since contractors and other trade allies are the catalyst for the Easy Upgrades program, it was important to develop a trade ally survey to gather various perspectives regarding the program. Mid-year, Idaho Power created a special, one-time survey for the trade allies, comprised of electrical contractors, equipment suppliers, mechanical contractors, and energy consultants.

The Easy Upgrades Trade Ally Survey was sent electronically to 256 different trade allies that have been involved in the Easy Upgrades program. Eighty-five of those contractors responded to the survey, resulting in a 33 percent response rate. Almost one-third of the respondents said that less than 10 percent of their commercial projects qualified for the Easy Upgrade incentive. Eleven percent said that over 75 percent of their commercial projects qualified for Easy Upgrades incentives.

When asked how often the Easy Upgrades incentive allows the contractor to influence clients purchasing decisions, only 24 percent said “always” and 56 percent said “occasionally.” When trade allies were asked what barriers exist that prevents their customers from participating in the Easy Upgrades program, almost 68 percent said the biggest barrier was that the customer lacked the necessary up-front capital to invest in the equipment.

Trade allies were asked a series of questions about what they thought the impact to their customers would be if Idaho Power did not offer the Easy Upgrades program. Forty-two percent said it was “very likely” and 37 percent said it was “somewhat likely” that clients would postpone or cancel their projects. Seventy-six percent said it was “very likely” the clients would keep using less-efficient, existing equipment. Forty percent said it was “very likely” and 43 percent “somewhat likely” that customers would purchase less expensive or less energy-efficient equipment. Thirty-five percent said it was “very likely” and 34 percent said it was “somewhat likely” that customers would not change their projects at all.

Overall satisfaction with the Easy Upgrades program among these trade allies was very high, with 73 percent indicating “very satisfied” and 22 percent indicating “somewhat satisfied.” Ninety-three percent of the trade allies said they were “very likely” to recommend the Easy Upgrades program to future clients, and 7 percent said they were “somewhat likely” to recommend the program.

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

Another study that was conducted on the Easy Upgrades program was a post-occupancy evaluation completed by the IDL. The post-occupancy evaluation was undertaken to gather useful information about occupant satisfaction related to energy efficiency measures. This study utilized an online survey tool where respondents answered questions relating to environmental satisfaction. Results of the study indicate that some measures offered in the Easy Upgrades program significantly increase environmental satisfaction among building users, while other measures do not result in as high of levels of environmental satisfaction. The final report of this evaluation is included in *Supplement 2: Evaluation*.

A process evaluation is scheduled for the Easy Upgrades program in 2010.

2010 Strategies

Only minor changes will be made to the Easy Upgrades program in 2010 in anticipation of the changes planned for 2011. Based on current analysis for 2009, there are 10 measures offered under the Easy Upgrades program that appear to be not cost-effective from the TRC perspective. Four of these measures were new in 2009 and six were identified in the Potential Study conducted by Nexant, Inc., as warranting further analysis. These measures are window shading, flat panel LCD displays, occupancy sensor controls, high-efficiency coin-operated washers without electric water, air-cooled multiplex systems, and evaporative-cooled multiplex systems. Although only eight of these measures were used by

customers in 2009 and comprised less than 1 percent of the incented measures, their cost-effectiveness requires further analysis. Six measures offered in this program appear to have incentive costs greater than the incremental costs. Actual incremental costs for these measures are difficult to obtain and the most recent available incremental costs for these measures are from the Potential Study conducted by Nexant, Inc. The incremental costs in the Nexant study are based on regional information. Further research is needed to determine the actual incremental costs applicable to Idaho Power's service area. As stated earlier, Easy Upgrades program revisions are generally conducted every other year and are scheduled for 2011. The company plans to complete a program evaluation and assessment in 2010. Through customer research, Idaho Power has received feedback from customers, contractors, and company customer representatives. They recommend keeping the program relatively unchanged for two years to promote participation and provide program consistency.

FlexPeak Management

	2009	2008
Participation and Savings		
Participants (sites)	33	n/a
Energy Savings (kWh)	n/a	n/a
Peak Reduction (MW)	19.3	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	\$528,681	
Oregon Energy Efficiency Rider	\$0	
Idaho Power Funds	\$0	
Total Program Costs—All Sources	\$528,681	
Program Levelized Costs		
Utility Levelized Cost (\$/kWh)	n/a	n/a
Total Resource Levelized Cost (\$/kWh)	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	
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. 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. to 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 will last between two to 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 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 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 continually 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.

2009 Activities

The first customers enrolled in the program and EnerNOC committed their first reduction amount of 0.30 MW by the second week on June 2009. By the end of the season, EnerNOC had enrolled 22 customers across 33 facility sites and had committed to a maximum weekly reduction of 15.2 MW. Idaho Power called eight demand response events. In each case, EnerNOC successfully exceeded the committed MW reduction. All events occurred in July, and the highest hourly reduction achieved was 17.1 MW, which exceeded the target reduction for the summer of 2009 of 2 MW.

Cost-Effectiveness

In the initial cost-effectiveness analysis, Idaho Power estimated that the commercial demand response program would be cost-effective, both from the UC and TRC perspectives, beginning in year two (2010). Year one of the program was viewed as a ramp up year. It was projected that the TRC B/C ratio in year one would fall below 1.0, but that building the program foundation would contribute to a cost-effective program in ensuing years.

EnerNOC's initial goal was to achieve 2 MW of demand reduction, and the cost-effectiveness analysis indicated that, under normal circumstances, the program must reach 15 MW for the value in demand savings to be greater than program costs and for the program to be cost-effective.

Lower expenses and higher demand reduction contributed to the program's cost-effectiveness in year one. Program administration costs were one-third of what was originally projected. Despite the late start, EnerNOC experienced a higher participation rate than what was originally expected. This resulted in higher demand reductions than were assumed in the original cost-effectiveness analysis. Most notably, the assumption in the cost-effectiveness analysis was that EnerNOC would achieve the exact MW demand reduction they committed to provide to Idaho Power. In actuality, EnerNOC achieved a much greater reduction than the committed MW reduction.

The actual cost of the program in 2009 was \$528,681. In the remaining years of the contract, the program is expected to be cost-effective with a projected contract life B/C ratio of 1.11 from the TRC perspective.

Customer Satisfaction and Evaluations

EnerNOC conducted a customer satisfaction survey after the test event in July, and while only a few customers were enrolled by then, the results were positive. On a scale of one to ten, ten being the highest, all four of the four customers responded with a ten when asked how likely they would be to recommend the program to others. All 22 customers who enrolled and participated in the 2009 season continued to be enrolled to participate in 2010.

2010 Strategies

EnerNOC plans to conduct a post-season customer satisfaction survey for the 2009 season in the first quarter of 2010. The results of which will be made available to Idaho Power. Idaho Power filed with the OPUC in March 2010 to make the program available to its Oregon customers. Idaho Power will continue to evaluate the best use of the program in order to meet the program objectives, maximize the benefit to Idaho Power's system, and refine internal criteria to call demand-reduction events.

In 2009, Idaho Power completed a preliminary report on the FlexPeak Management program. This report provides initial results of the program during the first year of operation. A copy of this report is included in *Supplement 2: Evaluation*.

Holiday Lighting Program

	2009	2008
Participation and Savings		
Participants (projects)	32	14
Energy Savings (kWh)	142,109	259,092
Peak Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	\$33,673	\$28,782
Oregon Energy Efficiency Rider	\$257	\$0
Idaho Power Funds	\$0	\$0
Total Program Costs—All Sources	\$33,930	\$28,782
Program Levelized Costs		
Utility Levelized Cost (\$/kWh)	\$0.031	\$0.014
Total Resource Levelized Cost (\$/kWh)	\$0.066	\$0.035
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	3.18	
Total Resource Benefit/Cost Ratio	1.37	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2008	

Description

The overall goal of the Holiday Lighting Program is to encourage customers to purchase more efficient LED holiday lights. Although the incentive is available only to commercial customers, the program is useful as a means of introducing all Idaho Power customers to the advantages of LED lighting. In doing this, Idaho Power is rapidly helping make LED lighting the preferred choice when it comes to replacing existing holiday lights. LED lighting has now become readily available at most stores supplying holiday lighting to both commercial and residential markets. Along with spreading the message of LED lighting's energy efficiency, Idaho Power also informs customers about the safety benefits and longer product life that lead to a reduction in waste through LED usage.

2009 Activities

For the third year, Idaho Power offered an incentive for commercial customers to replace holiday lighting with higher-efficiency LED lighting. The incentives were 10 cents for each mini-incandescent bulb and 30 cents for each C7 or C9 bulb. Customers turned in their old bulbs to the recycling partner and received a receipt for the number of bulbs turned in. In 2009, there were four recycling partner sites located across southern Idaho and one site in eastern Oregon. After the customers purchased new bulbs, they submitted their receipt for their new purchase and the receipt from the recycling partner to Idaho Power for their incentive to be processed.

Two trends influenced the program participation growth in 2009. One trend was participants turned in old lighting for recycling early in the holiday season, then purchased replacement lights at a discounted price after the holiday season for use in future years, thus getting more bulbs for a lower price in calendar year 2010. Another trend was participants spending only the amount equaling the incentive payment for replacement bulbs. It is speculated that the participants' holiday displays are getting smaller. Energy savings decreased in 2009. The decrease may be explained with the current economy. Possibly, the Holiday Lighting Program participants were not going to spend more out-of-pocket money than they were going to receive incentives for and took actions to decrease their expenses.

The largest 2009 program participant was the City of Cascade, which is estimated to save nearly 70,000 kWh per year. In Boise, the Idaho Botanical Garden enlarged their Winter Garden Aglow holiday display, retiring over 60,000 incandescent lights and replacing them with nearly 32,000 LED lights. Signage at the Botanical Garden again promoted the energy and safety benefits of LED lights. It is estimated that over 35,000 visitors attended the event.

Cost-Effectiveness

Savings estimates were computed for both commercial-grade LED C7/C9 and mini bulbs, based on the review of manufacturing specifications of the LED C7/C9 bulbs that indicated that they use 5 watts less per bulb over a comparable incandescent C7/C9 bulb. LED mini-bulbs were calculated to have .41 watts 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 .24 kWh for mini-LEDs. In early 2008, incremental customer costs were calculated by averaging per bulb differences between commercial grade LED and incandescent equivalents across nine on-line retailers and averaged 72 cents for C7/C9 and 30 cents for mini-bulbs. The market analysis and savings calculations supported incentive levels of 10 cents for each mini-incandescent bulb, and 30 cents for each C7 or C9 bulb. In 2010, Idaho Power plans to continue research into the costs and savings associated with this program. Being a relatively new technology, the costs of LED's may be decreasing. Current economic conditions have likely change the way in which participants invest in holiday lighting. Many of the participants now only spend the amount of the incentive on new lights resulting in no incremental costs. With no incremental costs, the measure is cost-effective. Idaho Power also believes this program has many additional benefits beyond avoided electricity costs that are difficult to calculate. This program facilitates spillover benefits because of the educational opportunities available for all customers. This program is only available to commercial customers yet it may influence the residential market resulting in greater savings with no UCs. Complete cost-effective model assumptions and analysis are included in *Supplement 1: Cost-Effectiveness*.

Customer Satisfaction and Evaluations

Customer satisfaction indications come from a number of sources, including anecdotal comments from customers. The head of horticulture at the Idaho Botanical Garden in Boise described the impact of Idaho Power's Holiday Lighting program on his organization during the Idaho Botanical Garden's annual Winter Garden Aglow, which is held each year during the winter holiday season. In an e-mail correspondence dated January 28, 2010, he wrote:

Winter Garden Aglow plays a critical role in our revenue stream, making up 20 percent of earned revenue for 2009. Our lights would go out without it. As you know, LED lights cost up to three times more than incandescent with a far greater life expectancy. I have estimated over the years we had to replace 25 percent or more of our incandescent lights every year; not very sustainable as the garden grows and the need to increase the number of lights in our display. Not only does

Idaho Power's rebate program support us in our efforts to convert our light display to a longer lasting product, we save dollars on our energy bill and are more sustainable as an organization, which fits into our mission of education and sustainability in the landscape. We hope Idaho Power continues to offer this program. We really consider Idaho Power a part of Winter Garden Aglow; you have been there since we plugged in the first 15,000 lights and attracted 1,500 visitors to the present 300,000 lights and 35,000 visitors and growing. Our 'Thanks to Everyone at Idaho Power,' we couldn't do it as well as we do without your support.

2010 Strategies

Many of the same marketing approaches will be used in 2010 to increase customer participation. These promotional methods include providing materials in advance to chambers of commerce, business and professional organizations, and participating trade allies. Idaho Power plans to continue to coordinate with municipalities and the Idaho Botanical Garden to support their LED-display efforts. A Holiday Lighting Program bill stuffer will be sent in the fall of 2010 to promote the program. As the market acceptance of LED holiday lighting increases and if the economy improves, Idaho Power anticipates increased participation in the program.

Oregon Commercial Audits

	2009	2008
Participation and Savings		
Participants (audits)	41	0
Energy Savings (kWh)	n/a	n/a
Peak Reduction (MW)	n/a	n/a
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	\$0	\$0
Oregon Energy Efficiency Rider	\$20,732	\$0
Idaho Power Funds	\$0	\$58
Total Program Costs—All Sources	\$20,732	\$58
Program Levelized Costs		
Utility Levelized Cost (\$/kWh)	n/a	n/a
Total Resource Levelized Cost (\$/kWh)	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.

2009 Activities

Idaho Power sent out its annual mailing to approximately 3,300 Oregon commercial customers in August 2009. Customers were notified of the availability of no-cost energy audits and the Idaho Power publication *Saving Energy Dollars*. Forty-one customers requested an audit, with 21 audits completed by Idaho Power and 20 audits completed by a third-party contractor. Requested and completed audits included ten customers requesting only conservation materials and not a physical audit. Six of the customers having physical audits requested publications.

EnerTech Services, the third-party energy-auditing contractor, delivered Idaho Power efficiency program information to customers having audits conducted. During the delivery of information, EnerTech Services discussed maintenance and efficiency opportunities that may be available to meet customer needs. For example, a Jordan Valley school furnace could not adequately heat the downstairs

portion of the elementary school. Simultaneously, the same furnace was overheating the upstairs portion of the elementary school. EnerTech Services identified this as an efficiency problem and a money-saving opportunity. The customer's primary concern was a comfort problem caused by improper air delivery. EnerTech Services suggested an efficiency measure that solved the problem and that the customer quickly adopted.

Cost-Effectiveness

As stated above, 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

Anecdotal comments from customers are indicators of customers' satisfaction with Idaho Power energy efficiency programs. The business manager with the Jordan Valley School District 3 summarized the school district's experience with the Oregon Energy Audits program. In an e-mail correspondence dated February 16, 2010, she wrote:

Jordan Valley School District had a very short time line to apply for a lighting retrofit and window replacement grant through the Oregon Department of Energy. We contacted Idaho Power and a team was on site the next day completing the energy audit. A consultant was also brought in by Idaho Power to complete the energy savings worksheet to complete the application. In addition, Idaho Power employees recommended that a contractor be brought in to study air flows and balancing at the elementary school. Idaho Power's commitment to the Oregon Energy Audits Program has greatly aided our school district in cutting energy costs in the future. This will free up more dollars for educating our children.

2010 Strategies

In 2010, 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 Idaho Power incentive programs available.

IRRIGATION SECTOR OVERVIEW

Description

The irrigation sector is comprised of agricultural customers operating water-pumping or water-delivery systems to irrigate agricultural crops or pasturage. The end-use equipment primarily includes 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 2009, the maximum number of active customers was 18,818 system-wide. Irrigation customers accounted for 1,649,758 MWh's of energy usage and approximately 750 MW of peak demand in 2009. This sector represented about 12 percent of Idaho Power's total electricity usage and about 23 percent of peak demand.

Programs

Table 9. 2009 Irrigation Program Summary

Program	Participants	Total Costs		Savings		
		Utility	Resource	Annual Energy (kWh)	Peak Demand (MW)	
Demand Response						
Irrigation Peak Rewards	1,512 service points	\$9,655,283	\$9,655,283	n/a	160	
Total		\$9,655,283	\$9,655,283	n/a	160	
Energy Efficiency						
Irrigation Efficiency Rewards	887 projects	\$2,293,896	\$6,732,268	13,157,619 ^(a)	3.4	
Total		\$2,293,896	\$6,732,268	13,157,619	3.4	

^(a) See Appendix 3 for notes on methodology and column definitions.

Idaho Power currently offers two programs to the irrigation sector: 1) Irrigation Peak Rewards, a demand response program designed to decrease peak demand, which included the new dispatchable demand response option added in 2009; and 2) Irrigation Efficiency Rewards, an energy efficiency program designed to encourage replacement or improvement of inefficient systems and components. Added this year was a new energy efficiency measure, Green Rewind, which is a measure that ensures the motor's original efficiency is maintained if it is rewound at an approved service center.

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. There are about 200 to 300 new service locations added each year. The new locations are typically smaller systems that are only pressurizing water.

Each year, the company conducts a customer relationship survey. Overall, 49 percent of Idaho Power irrigation customer surveyed in 2009 for the Burke Customer Relationship survey indicated Idaho Power was meeting or exceeding their needs in offering energy efficiency programs. Fifty-six percent of survey respondents indicated Idaho Power is meeting or exceeding their needs with information on how to save

energy or reduce their bill. Sixty-two percent of respondents indicated Idaho Power is meeting or exceeding their needs with encouraging energy efficiency with its customers.

Irrigation Efficiency Rewards

	2009	2008
Participation and Savings		
Participants (projects)	887	961
Energy Savings (kWh)	13,157,619	11,746,395
Peak Reduction (MW)	3.4	3
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	\$2,112,391	\$1,878,960
Oregon Energy Efficiency Rider	\$152,134	\$193,276
Idaho Power Funds	\$29,371	\$31,466
Total Program Costs—All Sources	\$2,293,896	\$2,103,702
Program Levelized Costs		
Utility Levelized Cost (\$/kWh)	\$0.026	\$0.026
Total Resource Levelized Cost (\$/kWh)	\$0.077	\$0.073
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	3.78	
Total Resource Benefit/Cost Ratio	1.16	
Program Characteristics		
Program Jurisdiction	Idaho/Oregon	
Program Inception	2003	

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 25cents 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 re-evaluated. 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 eleven separate measures. These measures include 1) new flow control nozzles; 2) replacement of worn brass or plastic nozzles; 3) rebuilt or new impact sprinklers, 4) rebuilt or new wheel-line levelers; 5) new low pressure or rotating-type sprinklers; 6) new low pressure regulators; 7) new drains, riser caps, and gaskets; 8) new wheel-line hubs; 9) new pivot gooseneck and drop tube; 10) leaky pipe repair; and 11) new center pivot base boot gasket. Incentives vary based on specific component replacement.

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 National Electrical Manufacturers (NEMA) Standard hp-rated motor between 15 and 5,000 hp that receives a verified Green Rewind. In July 2007, the RTF approved the Green Motors Practices rewinding as an energy efficiency measure and approved a table of deemed savings.

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 agricultural trade show participation. Idaho Power's agricultural representatives are funded approximately 30 percent by the Riders and 70 percent from base rates.

2009 Activities

No changes were made to the basic structure of the program during 2009. The incentives and program rules stayed the same as they were in 2008. However, Idaho Power continued to market the program by varying the location of workshops and offered new presentations to irrigation customers.

A contract was established in March 2009 with the GMPG, a non-profit organization that pioneered Green Rewinds, via a process that ensures that industry best practices are used when motors are rewound. In Idaho Power's service area, there are currently five motor rewind shops that are signed up with GMPG to provide Green Rewinds. During the October 2009 EEAG meeting, Idaho Power briefly described the NEEA Green Rewind program. With support from EEAG, the company added Green Rewind as a measure for the Irrigation Efficiency Rewards program.

In 2009, Idaho Power provided ten workshops promoting the Irrigation Efficiency Reward program throughout the service area. Approximately 250 customers attended workshops in Blackfoot, Aberdeen, Burley, Gooding, Twin Falls (3), Glens Ferry, Nampa, and Payette. Idaho Power also had an exhibitor

booth at regional agricultural trade shows, including the Eastern and Western Idaho Agriculture Expos, the Agri Action Ag show, and the Idaho Irrigation Equipment Association show and conference.

Of the 887 irrigation efficiency projects completed in 2009, 744 were associated with the Menu Option and provided 8,580 MWh of energy savings and 1.7 MW of demand reduction. The Custom Option provided 143 projects, of which 81 were new irrigation systems and 63 were on existing systems and provided 4,382 MWh of energy savings and 1.7 MW of demand reduction for the year. Also during 2009, irrigation customers contributed 195,886 kWh of energy savings from 27 motors participating in the Green Rewind Measure.

Cost-Effectiveness

At the end of each year, Idaho Power reviews all program payments, summarizes data, and calculates the cost-effectiveness of the program. Each application under the Custom Incentive Option received by Idaho Power undergoes an evaluation process to ensure energy savings will be achieved through a customers' participation in the program. In order to estimate the effectiveness of a project, Idaho Power uses a service points 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 system design through aerial photographs, maps, and field visits by Idaho Power agricultural representatives to ensure the system is used in the manner the application described. Each application under the Menu Incentive Option received by Idaho Power also undergoes an evaluation process 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 to reflect how the components are actually being used.

Customer Satisfaction and Evaluations

As part of a survey sent at the end of the 2009 irrigation season to all customers participating in the Irrigation Peak Rewards program, two questions were aimed at the Irrigation Efficiency Rewards participants. Fifty-six percent of respondents indicated that they were participants in the Irrigation Efficiency Rewards program. Forty-two percent also indicated that they had attended one of the company's ten irrigation workshops that were conducted across Idaho Power's service area during winter 2009.

In 2009, Idaho Power joined with representatives from BPA, the Energy Trust of Oregon (ETO), the RTF, and Rocky Mountain Power to form an RTF subcommittee to review deemed measures for irrigation hardware applications. One of Idaho Power's purposes of working with the subcommittee was to explore different ideas for energy savings validation, measurement and verification studies, and/or evaluation efforts. Idaho Power participated in four meetings and conference calls with the RTF subcommittee during 2009. At the January 5, 2010, meeting, the subcommittee presented its findings, and the RTF agreed upon the methodology for calculating the deemed irrigation hardware measures. The RTF included 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.

In 2010, Idaho Power plans to perform a process evaluation of the program. The company also plans to conduct a billing analysis of participants in the Irrigation Efficiency Rewards program to further verify the impacts of the program. Consistent with the RTF's decision previously described, Idaho Power will

review the energy savings of the program once it has been process-evaluated and other regional studies are made available.

2010 Strategies

A modification regarding the time frame in which irrigation components are eligible for an incentive will be made for all menu payments starting in 2010. Previously, the company provided incentives on eligible energy efficiency measures in the Menu Incentive Option as long as the customer provided purchase invoices to the company showing that the measures were installed after the program's inception in November 2006. Going forward, 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. During the October EEAG meeting, members expressed their support regarding these changes and advised the company to move forward with the proposed modification.

Marketing plans for 2010 include conducting five–seven irrigation, customer-based workshops and three–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.

Irrigation Peak Rewards

	2009	2008
Participation and Savings		
Participants (service points)	1,512	897
Energy Savings (kWh)	n/a	n/a
Peak Reduction (MW)	160	35
Program Costs by Funding Source		
Idaho Energy Efficiency Rider	\$9,131,929	\$1,373,855
Oregon Energy Efficiency Rider	\$451,673	\$17,570
Idaho Power Funds	\$71,681	\$40,415
Total Program Costs—All Sources	\$9,655,283	\$1,431,840
Program Levelized Costs		
Utility Levelized Cost (\$/kWh)	n/a	n/a
Total Resource Levelized Cost (\$/kWh)	n/a	n/a
Program Life Benefit/Cost Ratios		
Utility Benefit/Cost Ratio	1.50	
Total Resource Benefit/Cost Ratio	1.50	
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. In exchange for a financial incentive, irrigation customers allow switches to turn off pumps at participating locations during peak electrical load on hot, summer, weekday afternoons. The greatest demand for electricity occurs at the time when farmers are pumping water to their fields and customers are using A/C to cool their homes and businesses. Through this program, Idaho Power has been successful in reducing peak electrical load, which is driving Idaho Power's need for new resources.

In 2009, the program was active from June 15 to July 31. All Idaho Power irrigation customers taking service under Schedule 24 in both Idaho and Oregon 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 Automatic and Manual Dispatch Options (on-demand load control events), dispatchable 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 2009, dispatchable load control events could happen between 2:00 p.m. and 8:00 p.m. on weekdays only. 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 summed the demand credit and energy credit applied to a customer's monthly bills for the calendar months of June and July in 2009. All customer incentives participating in the Electric Timer, Automatic Dispatch, or Manual Dispatch Options are calculated using Idaho Power meter billing 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 incentives determined from interval meter data for service points classified as large service locations are completed through manual adjustments. 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 Weekday	\$3.15		
Two Weekdays.....	\$4.65	plus	\$0.002
Three Weekdays	\$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.

2009 Activities

A major change in the demand response program occurred in 2009. This change expanded the dispatch capability of Idaho Power to reduce system demand during critical summer peak load events. The Irrigation Peak Rewards program, originally identified as a resource in 2004, was transitioned to act primarily as a direct load control or dispatch program. In prior years, demand reduction through the program was controlled with only programmed timers that provided demand reduction from irrigation pumping systems from 4:00 p.m. to 8:00 p.m. on weekdays in June, July, and August. Options added to the program in 2009 allowed direct load control or dispatch capabilities to match demand response resources with actual system peaks. The change in the program has increased the program's peaking resource capacity from its previous range of 34 to 37 MW to a forecasted impact of 260 MW at program

maturity in 2012. Actual demand reductions from the revised program will depend on the level of irrigation customer participation.

The Irrigation Peak Rewards program, which included the Automatic and Manual Dispatch Options, was filed with the IPUC on November 10, 2008, and approved by the IPUC on January 14, 2009. The program was approved in Oregon by the OPUC on February 25, 2009. Idaho Power offered the program to all agricultural customers receiving service under Irrigation Rate Schedule 24 in 2009.

During winter 2009, Idaho Power began program marketing strategies. Ten program workshops were sponsored across Idaho Power's service area, and Idaho Power staff participated in five agriculture shows. New program offerings were presented, and demonstrations of the new dispatch demand response option were provided.

In February 2009, over 6,000 customer mailings were sent to all eligible Idaho Power irrigation customers. 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 2008 usage. Additionally, one-on-one training with Idaho Power agriculture representatives familiarized customers with the new technology and program details.

Idaho Power experienced great interest in the program and installed all of the available control devices, which totaled 1,274 by the end of the season. Program participation exceeded the number of available devices. After July 31, 2009, when more devices became available, 51 additional devices were installed.

The Irrigation Peak Rewards dispatch load control system experienced a number of different issues that affected Idaho Power's ability to fully realize its load-shedding potential. These problems included cell phone signal strength issues, satellite network problems, device programming issues, and control circuit wiring problems. While not all these problems were avoidable, lessons were learned as the problems were analyzed and solutions determined. For more details, refer to the December 2009 Irrigation Peak Rewards Program Report located in *Supplement 2: Evaluation*.

In 2009, the program achieved a maximum peak load reduction of approximately 160 MW. Six percent, or 374 of the eligible customers, chose to participate in the program. Almost 9 percent, or 1,512 of the eligible metered service points, were enrolled in the program. Of the 1,512 enrolled service points, 382 were enrolled in the Electric Timer Option and 1,130 were enrolled in the Automatic and Manual Dispatch Options.

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 cannot 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 Using Realization Rates

	Monday	Tuesday	Wednesday	Thursday	Friday
June 15–19	1.3	1.2	1.3	1.3	1.2
June 22–26	1.3	1.2	1.3	1.3	1.2
June 29–July3	12.6	12.1	12.6	160.2 ^(a)	11.6
July 6–10	12.6	12.1	12.6	13.2	11.6
July 13–17	12.6	12.1	12.6	155.3	153.8
July 20–24	11.2	145.8	154.8	155.3	10.2
July 27–31	154.8	10.7	11.1	11.6	10.2

^(a)Shaded cells are days when dispatch events occurred

Cost-Effectiveness

The benefit/cost (B/C) analysis for the Irrigation Peak Rewards program is based on a 20-year model that uses financial and DSM alternative costs assumptions from the IRP. As published in the 2006 IRP, for peaking alternatives, such as demand response programs, a 162 MW simple-cycle combustion turbine is used as a cost basis. 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 2009, the updating of the cost-effectiveness model resulted in a utility B/C ratio of 1.50. Beginning in 2010, financial inputs and alternative costs will be based on the 2009 IRP as filed with the IPUC and OPUC on December 30, 2009.

Customer Satisfaction and Evaluations

In 2009, Idaho Power completed a review of the program and included the results of this analysis in the *2009 Irrigation Peak Rewards Program Report*, dated December 1, 2009. This report provides details of program implementation, process changes, participation, and the demand-reduction impacts of the program. The program report is located in *Supplement 2: Evaluation*.

Idaho Power conducted a customer satisfaction survey, Idaho Power Peak Rewards Program Follow-Up Survey, from November 4 to November 19, 2009. The purpose of the survey was to solicit feedback regarding the program. The 10-question survey was mailed to all 374 customers enrolled in the Irrigation Peak Rewards program during summer 2009. During the two week period, 129 participants responded, yielding a 34 percent response rate. Almost 90 percent of the responding participants were either very satisfied or somewhat satisfied with the program. Nearly 5 percent of the respondents indicated dissatisfaction with the program, for a variety of reasons related to details of program operation and other considerations.

The survey provided information regarding the acreage and crops irrigated by the pumps participating in the program, how well electricians provided information about the functionality of the control devices, and what would prevent a customer from participating in the program in the future. It also provided an opportunity for the participants to make suggestions on how Idaho Power could improve the program and provide better information. Approximately 94 percent of the respondents indicated they were either very likely or somewhat likely to participate in the Irrigation Peak Rewards program in the future.

This survey will allow Idaho Power to modify its marketing strategies, educational opportunities, and program offerings to better suit customers' needs. Complete survey results are in the *2009 Irrigation Peak Rewards Program Report* found in *Supplement 2: Evaluation*.

2010 Strategies

A few modifications will be made in the program for the 2010 irrigation season. The program was reviewed by Idaho Power to determine if changes were needed to ensure beneficial use of the load reduction. In addition, Idaho Power reviewed a number of potential change ideas with the Irrigation Pumpers Association to see what changes would maintain the positive customer satisfaction. As result of Idaho Power's internal review and input from the Irrigation Pumpers Associations and the EEAG, the 2010 program will be changed in the following ways. The season will be changed to June 15 to August 15, Saturdays will be added as a potential interruption day, the time frame for possible interruptions will be 1:00 p.m. to 8:00 p.m., and large service locations using greater-than 1000 hp will use a base kW from the prior 24 hours before each event for incentive calculations.

Based on the results of the 2009 Irrigation Peak Rewards customer survey, Idaho Power will improve the program application, rewrite the program brochure to clarify the program information, and expand the number of presentations provided at agricultural commodity meetings.

Idaho Power will continue to market the program similar to 2009. New in 2010, to streamline the application process, customers that were in the program in 2009 do not have to re-sign-up to be in the program for 2010. It is expected that the program will continue to grow in 2010 due primarily to the success of the program in 2009.

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MARKET TRANSFORMATION

Northwest Energy Efficiency Alliance

NEEA encourages and supports cost-effective market transformation efforts in Idaho, Oregon, Washington, and Montana. Through partnerships with local utilities, NEEA motivates 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.

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

NEEA Activities

Commercial and Industrial NEEA Activities in Idaho

NEEA continued to provide support for commercial energy efficient activities in Idaho in 2009. This included partial funding of the Boise IDL and local BetterBricks® trainings and workshops. Idaho Power's commercial programs, Building Efficiency and Easy Upgrades, are designed to leverage NEEA, BetterBricks, and the Boise IDL activities.

In 2009, NEEA completed two MPERs on the BetterBricks initiative. BetterBricks is a comprehensive commercial sector energy efficiency initiative designed to stimulate demand for energy efficiency in commercial markets. These reports are located in the *NEEA Market Effects Evaluations* on the CD in *Supplement 2: Evaluation*.

The first MPER's objective was to collect data from BetterBricks activities and quantify energy savings associated with those activities. This report indicates that approximately 2.08 aMW of energy has been saved between 2005 and 2008, and a significant amount of additional energy savings from the BetterBricks initiative will occur in the next three to five years.

The second MPER documents the overall progress of NEEA's commercial sector market transformation initiative. Some of the key findings of this evaluation document that BetterBricks continues to raise awareness of best practices for energy efficiency and that BetterBricks appears to be achieving good penetration into target markets.

In the industrial sector, NEEA continued the IEA. The IEA is a multi-year strategic effort designed to improve energy efficiency in two regional industries considered heavy energy users, 1) the food processing and 2) the pulp and paper industries. With its large number of food processing customers, Idaho Power considers participation in IEA valuable.

Participants achieve cost savings through the adoption of energy-efficient business practices. The IEA provides expert support, resources, and services, providing companies with the training and tools for

making energy efficiency a core business value. Participants are asked for a commitment to a CEI program, which has the potential to increase production capacity, improve equipment reliability, and reduce operating costs and energy use by 5 percent to 20 percent. This effort is supported by providing technical knowledge for individuals, organizations, and manufacturing companies collaborating on energy efficiency implementation. IEA members include the BPA, regional utilities, the ETO, the Oregon Department of Energy (ODOE), and the IOER.

The fifth Market Progress Evaluation of the IEA was completed by the Cadmus Group, Inc., in May 2009. Results from the report indicate that the region's food processing market appears to be adopting energy management efforts focusing on CEI. According to the report, on a regional basis, nearly 20 percent of the target market is implementing CEI. Additionally, the Northwest Food Processors Association has set goals for decreasing energy intensity by 25 percent over the next ten years. Utility support and promotion of CEI are key aspects of the initiatives implementation strategy. According to the MPER, the current economic landscape will continue to impact companies' abilities to invest in major capital projects aimed at reducing energy use. However, data indicates the market is open to both capital and non-capital approaches to curtailing energy use and costs. A copy of the evaluation is in *Supplement 2: Evaluation*.

Training activity in 2009 included five industrial workshops co-sponsored by the IEA, Idaho Power, and others. Topics focused on pumps, compressed air, and industrial refrigeration.

Another NEEA research effort in the commercial and industrial sectors is the CBSA. The CBSA is a comprehensive study to characterize the physical and energy-use characteristics of commercial facilities in the Pacific Northwest. Along with this study, Idaho Power contracted with the Cadmus Group to over-sample buildings in Idaho Power's service area. The over-sample was designed to gather more detailed information to enhance program planning in the commercial sector. Idaho Power provided data and assisted the contractor in reviewing the commercial building characteristics in Idaho Power's service area.

Distribution Efficiency Initiative

From 2008 through 2009, Idaho Power participated with other northwest utilities in NEEA's DEI project study.

In 2008, the remote end-of-feeder control of the station transformer load-tap changer project was changed from a pilot project to a permanent installation. In addition, studies began to identify additional locations to implement the techniques identified in the pilot study. The initial phase will include locations that can be converted with minimal or no capital expenditures. Future phases will be those locations that require more extensive resources to implement.

In 2008, DEI Calculators, which are Excel-based tools, were completed and presented to the RTF. These calculators include a manager's tool that provides high-level results and an engineer's tool that allows users to develop multiple scenarios and compare results. These tools were developed to be used primarily by smaller utilities that may or may not have the resources to do the analysis necessary to implement a DEI-based project.

Project for 2009

The DEI project in 2009 was referred to as the Conservation Voltage Reduction (CVR) program. Starting in early June 2009, CVR was applied to nine substation transformers in seven different substations affecting 32 distribution feeders. These substations were chosen because studies showed the voltage could be reduced by 1 percent to 2 percent with no detrimental effects on customers and with no capital improvements required on the feeders. Voltage reduction was achieved by modifying the settings in the Load Tap Changer in the substation transformer. This resulted in approximately 3,300 MWh saved and reduced the summer peak demand by approximately 1 MW.

Residential NEEA Activities in Idaho

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 contracted with ECONorthwest to complete a MPER on the ENERGY STAR Homes Northwest program. This report is included in the *NEEA Market Effects Evaluations* that is included on the CD located in *Supplement 2: Evaluations*.

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. Eligible models and point-of-purchase marketing collateral were placed in Idaho Power's service area in fall 2009. Energy savings are being tracked by NEEA and will be reported to utilities in 2010.

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

In 2009, a MPER was completed by KEMA, Inc. for NEEA regarding consumer lighting initiatives to advance awareness and use of CFLs. This report concluded that the market for CFLs continued to make progress in the Northwest, and that regional CFL sales, availability, and diversity had increased. A copy of this report, *NEEA Market Effects Evaluations* is located on the CD included with *Supplement 2: Research and Evaluation Reports*.

Other NEEA Activities in Idaho

Each year, NEEA underwrites the Idaho Energy Conference through a contract with the Association of Idaho Cities.

NEEA Funding

In 2005, Idaho Power began the first year of the 2005–2009 contract and funding agreement with NEEA. Per this agreement, Idaho Power committed to fund \$1.3 million annually in support of NEEA's implementation of market transformation programs in Idaho Power's service area. Of this amount in 2009, 74 percent was funded through the Idaho and Oregon Riders, and 26 percent was funded by a credit accumulated during the previous contract period.

In 2009, Idaho Power paid \$968,263 to NEEA. The Idaho jurisdictional share of the payments was \$919,850, while \$48,413 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 2009 is 15,813 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 Web site at www.nwalliance.org.

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 2009. Increased customer awareness of energy-saving ideas was accomplished via distribution of approximately 14,500 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 published to Idaho Power's Web site and translated into Spanish during 2009.

Throughout 2009, Idaho Power continued to provide weekly energy efficiency messages each Saturday morning on the The HomeFix Radio Show on 580 KIDO AM. This radio show is the number-one-ranked Saturday morning show amongst adults ages 25 years and older in the Boise Metro market. Additionally, energy efficiency messages aired on KIVI-TV's Green Living television program throughout the spring and early summer.

In addition to these activities, Idaho Power was one of the sponsors of the second annual Idaho Green Expo in July. As part of Idaho Power's commitment to the Expo, the company distributed 5,500 re-usable shopping bags with the message "Reduce Your Use" to the more than 15,000 people who attended the 2009 Expo. Idaho Power's educational message at the Expo was about the importance of reducing energy use between 4:00 p.m. and 8:00 p.m. on hot summer afternoons. Idaho Power discussed the impact summer peak has on the electrical system and rates, and suggested specific ways Idaho Power customers could reduce their bills and help delay the need for additional generation resources by reducing their use during peak hours. The Expo built a model green home that provided hands-on education for Expo attendees, and Idaho Power provided educational and energy efficiency program signage, metering equipment, and other power-related equipment to emphasize the energy-efficient characteristics of sustainable building.

Idaho Power further increased its energy efficiency presence in the community by providing program information at special events. The company participated in more than 28 events during 2009. Additionally, the field staff serving throughout Idaho Power's service area gave dozens of energy efficiency presentations. The Customer Relations and Energy Efficiency department provided 21 presentations on Idaho Power's energy efficiency programs and energy-saving ideas to businesses, schools, and community organizations. Eight of these presentations were part of the 2009 Energy Efficiency & Green Living Series. This series expanded to Pocatello and Twin Falls in 2009, with two sessions held at the Portneuf District Library in Chubbuck and two sessions at the College of Southern Idaho. The Twin Falls classes were co-sponsored by the College of Southern Idaho's Sustainability Council. Four sessions were conducted at the Boise Public Library in downtown Boise.

This year's topics were titled Cooking Up Savings At Home; Simple Changes Make Cents; Get Your Ducts in a Row; Smart Grid 101; I Hate My Bonus Room; and Confessions of a Green Geek.

The eight sessions combined attracted 173 participants. The Residential Energy Efficiency Education initiative collected participant evaluations at the 2009 Energy Efficiency & Green Living Series. The survey return rate was 67 percent and contained many favorable comments such as "Very good class, I am interested in attending more classes about energy efficiency," and "Great! Thanks! My expectations were exceeded!" or "Well worth the time," and "Well put together! I liked the variety and the 'real' personal approach." The majority of respondents indicated they "strongly agreed" that the information was useful and met their expectations, and 84.6 percent of respondents indicated they "definitely would" or "probably would" recommend the class to family and friends. Results of the 2009 Energy Efficiency & Green Living Series surveys are included in *Supplement 2: Evaluation*.

The company provided speakers and other support for the annual Water Awareness Week, a training for public school teachers held in June. The theme was The Water-Energy Nexus. Discussion focused on how water use and electrical generation go hand-in-hand and how preservation or shortage of either resource impacts the other.

During 2009, Idaho Power improved the company's educational program for public school fourth through sixth-grade students. The name was changed from *Simple Ways to Save Energy* to *The Power to Make A Difference* to better reflect the program's content and to motivate the students to action. The 45-minute presentation focuses on energy-efficient actions within this age group's ability.

Development of educational materials included translation of the *Practical Ways to Manage Your Electricity Bill* brochure into Spanish. The educational materials will be distributed through appropriate channels to the company's Spanish-speaking customers. Idaho Power created educational content for PowerWise, a one-page energy efficiency newsletter made available upon request to the company's corporate customers as well as through Idaho Power's Web site. Additionally, two PowerPoint presentations with documentation and speaking notes were developed for use by the company's energy efficiency staff and field staff, one on residential programs and one on energy-saving ideas. In 2009, these presentations were also used effectively by community organization representatives to present information to their local communities regarding the value of energy efficiency and ways to save energy and money.

The Residential Energy Efficiency Education initiative provided energy efficiency tip content in response to media inquiries and for various Idaho Power publications, such as the Green Power Newsletter, the A/C Cool Credit Newsletter, the High Bill/Tiered Rate customer letters, and the Advanced Metering Infrastructure (AMI) door hangers.

Idaho Power sponsored two general education efforts during the year. The first was the publication of the 2009 Energy Efficiency insert for use in The Idaho Statesman in June. The insert presented Idaho Power's Energy Efficiency Programs, introduced the new tax credits for residential energy efficiency improvements, discussed the reasons why energy efficiency is important, and offered energy efficiency tips regarding landscaping and reducing use during summer peak. 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 on summer peak, what it is, and why it is important.

During 2010, 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 2010 include distributing Spanish versions of the book *30 Simple Things You Can Do To Save Energy*. Idaho Power will also partner with the Idaho Commission for Libraries, Avista, and PacifiCorp to provide Kill-A-Watt meters to libraries throughout Idaho for lending to library patrons. These meters will be packaged with educational materials and instructions on how to use the meter to perform a basic home audit. Additional energy efficiency presentations will be developed and made available for corporate and community outreach. The Idaho Power Web site will be expanded to include a section on educational resources. Additionally, the Residential Energy Efficiency Education Initiative will lead an effort to streamline and automate the process of responding to requests for Idaho Power's support at community events. This Event Outreach process will provide more consistency and equity in determining which events the company participates in and will ultimately capture data that will assist Idaho Power in quantifying the effectiveness of the company's outreach efforts.

Easy Savings Program

As a result of Rate Case 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 clarified 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 families who heat their homes with electricity provided by Idaho Power.

In 2009, Idaho Power and Community Action Partnership Association of Idaho, Inc. (CAPAI), formed a group to design an educational program for special needs customers who would not be prioritized for weatherization services. The group consisted of members from IPUC, CAPAI, a CAP agency, and Idaho Power who met through 2009. In June, group members met with potential vendors. Resource Action Programs (RAP) was selected due to their experience and knowledge providing similar services in other states. CAPAI signed a contract with RAP for provision of the Easy Savings Program. As directed by the IPUC, the program is funded from customer rates.

The Easy Savings program provides a kit containing low-cost/no-cost energy saving items to be distributed during the energy assistance/ LIHEAP application appointment with customers requesting assistance with Idaho Power bills.

The primary target for the program is households applying for energy assistance who do not contain members who qualify for weatherization prioritization, such as elderly or disabled individuals and families with children under age six.

Kit items include:

- 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 for the laundry

- Quick Start Guide to installation
- Sixteen-question survey

All educational materials are printed in English and Spanish. Returned surveys will be used to track effectiveness of the program.

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

Commercial Education Initiative

Idaho Power continued its Commercial Education initiative, launched in spring 2008. The main objectives of this initiative are to educate commercial customers about energy efficiency, increase participation in existing commercial energy efficiency and demand-reduction programs, enhance customer satisfaction, and reduce energy use. The key item identified in 2008 was the need to develop methods using Idaho Power CRs, trade allies, and marketing mailings to deliver meaningful information to individual customers' building, equipment, and operational needs. In 2009, Idaho Power continued educating customers about energy efficiency and addressed ways of changing customer practices and behaviors.

Idaho Power provides information designed to support efficiency measures with rapid return on investment for particular market segments. Identification of appropriate and cost-effective measures is a result of customer site visits. The site visits enable Idaho Power to address each customer's unique priorities, facility, and financial situation, resulting in energy efficiency recommendations pertinent to the customer's facility. Site visits additionally serve as field-staff training for future site visits.

Customers' energy efficiency objectives are addressed in various ways. Equipment Efficiency Specification Sheets focusing on efficiency opportunities using common equipment configurations were developed in 2009. Idaho Power became familiar with local practices through the site visits and created a menu of opportunities unique to each site. A measure designed, analyzed, and deemed effective in one market, such as condenser heat reclaim for pre-heated water in restaurants, may not be cost-effective in the Idaho Power service area. Due to lower energy prices in the company's service area practices, such as purchasing low-cost cooling equipment with each piece of equipment having its own dedicated indoor condensing unit, rather than a multi-unit serving condensing system, is more cost-effective.

The initiative continued helping commercial customers, trade allies, field staff, professional organizations, and community organizations identify common problems and energy efficiency opportunities. Potential solutions and ideas were addressed through networking with energy information sources, such as E Source, Idaho Power, trade allies, and customers. Measures identified that fit specific customer needs include demand-control ventilation, installation of economizers, and thermostat setbacks of building conditions through building automation. For example, a very high number of customers have adopted the practice of running HVAC system fans at all times. This is a very inefficient practice with a very large following. Another common practice with heat pump owners is to perform overly aggressive thermostat setbacks that require less efficient electric resistance heat strips for the heated space to recover from the thermostat setback. Although it is always the aim to identify and have the customer

adopt recommendations with the greatest benefit, reductions in usage of one-third of the kWh in HVAC have been accomplished with changes solely to operating behavior.

The education initiative staff delivered eight presentations for professional organizations in 2009, including the United States Green Building Council (USGBC), and International Building Operators Association (IBOA). An additional 19 program presentations were made for commercial businesses and business organizations including Food Services of America (FSA).

In 2010, the initiative will continue site visits, use of Equipment Efficiency Specification Sheets with customers, presentations at professional conferences, and site walk-throughs. Idaho Power plans to capitalize on effective customer projects by creating success stories documenting customers' energy efficiency processes. All methods are used to encourage customers and contractors to increase adoption of efficiency measures and participation in energy efficiency programs. Idaho Power plans to identify potential behavior-only reduction efforts by sending out a mailer asking customers to describe how they have reduced usage through behavior.

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 2009, Idaho Power sponsored three LEEF projects. Two projects resulted in direct savings, and one training project promoted long-term building design changes. The Two Rivers Homeowners Association received funds to assist in the replacement of 36 water pump timers used in the subdivision's many water features. These pumps were running continuously unless manually shut down and the addition of programmable timers allowed the subdivision to reduce both energy use and demand. LEEF funds paid \$2,950 for an estimated 162,595 kWh of savings.

Education funds within LEEF were used to sponsor four classes in an 18-week course for the National Sustainable Building Advisor Program. These five- and seven-hour courses were also sponsored by NEEA and by the IDL, where the classes are held. Two of the four sponsored courses occurred in December 2009, 1) Climate Responsive Energy Design and 2) HVAC, Domestic Hot Water; Day lighting. The remaining two sponsored courses, 1) Day lighting; Electric Lighting and 2) Healthy, Energy Efficient Buildings are planned for first quarter 2010.

Alternative Energy Solutions received funds to manage the installation of an outside air economizer system on a walk-in cooler at small market in Nampa. In lieu of using the mechanical refrigeration system, when the outside air was cool enough, it was introduced directly to maintain the cooler temperature. Evaporator fan controls were installed to cycle fans off when the cooling set point was met. These fans ran 24 hours a day previously. LEEF funds paid \$900 toward these improvements for an estimated 10,130 kWh savings annually. Through this project, Idaho Power gained valuable insights and is applying successful aspects of this project to other customer facilities.

Students for Energy Efficiency

According to the Idaho Energy Plan, the best path to ensuring a reliable, low-cost energy supply involves energy conservation and the integration of renewable energy sources. Idaho Power created the SEE program to give Idaho students the opportunity to participate in energy assessments of their schools and use science and math skills to evaluate and make recommendations where energy improvements can be implemented. The program was implemented in autumn 2009.

Funding for the SEE program comes from the IPUC Order No. 30760, dated March 27, 2009, directing Idaho Power to spend \$500,000 dollars over a two-year period with a mission of promoting energy education and efficiency to students within Idaho Power's Idaho service area. The order directed the appropriate disposition of the proceeds from the sale of Idaho Power's sulfur dioxide (SO₂) emission allowances in calendar year 2007 for development and implementation of an energy education program.

There are two primary initiatives, one is a high school program and the other is an elementary program focused on sixth grade students. 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 elementary program provides students with 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 2009–2010 school year, over 1,200 students are participating in both programs.

The SEE programs promote 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 provided benefits to their communities in reduced energy demand and reduced operating costs. Evaluations by program participants will be conducted following the completion of the students' assessment reports, presentations, and participation. Idaho Power plans to continue to offer these student programs again during the 2010–2011 school year to Idaho students in the Idaho Power service area.

Energy Efficiency Education

At the end of 2008, Idaho Power 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 2009, the Idaho Power community education team conducted over 60 classroom presentations across Idaho Power's service area. The original title of the presentation was *Simple Way to Save Energy*. Later in the year, it was renamed *The Power to Make a Difference*. Idaho Power is planning to make some revisions and additions to the presentation.

During 2009, Idaho Power community education and customer representatives conducted over 35 presentations and programs regarding energy efficiency to senior centers within the company's service area. The energy efficiency presentation titled, *The Power to Make a Difference*, 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.

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. To address the removal of financial disincentives and to explore financial incentive mechanisms, Idaho Power tested the effects of a FCA and a Performance-Based DSM incentive as part of a three-year, two-pilot initiative. The two pilots were operated on a limited basis in Idaho to allow for a thorough evaluation to be conducted prior to a broader application of the financial mechanisms. 2009 was the third year of the FCA pilot, and Idaho Power concluded that this mechanism worked as intended. In October, the company filed an application with the IPUC to make the FCA mechanism permanent.

The Performance-Based DSM Incentive pilot proved more difficult and challenging. Due to technical difficulties associated with goal-setting and performance measurement under the pilot mechanism, Idaho Power recommended termination of the pilot, effective January 2009. In 2009, Idaho Power conducted a number of workshops to explore other financial incentive mechanisms, and the investigation of an appropriate avenue is still under way. These mechanisms are discussed in more detail below.

Energy Efficiency Rider

In 2009, under IPUC Order No. 30814, the Idaho Rider, Schedule 91, was increased from 2.5 percent to 4.75 percent of base revenues effective June 1. Funding from the Oregon Rider, Schedule 91, is currently at 1.5 percent of base revenues with monthly caps on residential and irrigation customers' bills. On March 5, 2010, Idaho Power filed Advice No. 10-03 requesting that the OPUC increase the Oregon Rider to 3.0 percent and eliminate the monthly caps on residential and irrigation base rates. An effective date of June 1, 2010 was requested.

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 in the most recent rate case and the fixed costs that Idaho Power actually received the previous year through energy sales. This mechanism removes the financial disincentive that exists when Idaho Power invests in DSM resources. The FCA Pilot was 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 energy charges. Confining the pilot to the residential and small commercial classes allowed the true-up mechanism to be tested on a limited basis to minimize any unintended consequences.

During the three-year period in which the FCA, Schedule 54, has been in effect as a pilot rate mechanism, Idaho Power has made strong progress toward improving and enhancing its efforts to promote energy efficiency and DSM activities. During the term of the FCA Pilot, the company has increased the number of DSM programs it offers and substantially increased both its investment in DSM activities and the MWh savings obtained via DSM. Results from the first two years of the pilot indicate that the true-up mechanism is working as intended and operating to mitigate the unintended adverse

effects of DSM by ensuring that the fixed costs the IPUC authorized the company to recover are being recovered via the FCA mechanism.

The mechanism has proved to be fair to both the company and its customers by providing a refund in one year when average usage per customer increased and a surcharge in the next when average usage per customer decreased. The mechanism has also proven to be reasonable since the individual customer bill impacts, as both surcharges and refunds, have been relatively small. On October 1, 2009, the company filed an application with the IPUC to convert the FCA to an ongoing and permanent rate schedule. This case, No. IPC-E-09-28, is ongoing. The three-year FCA Pilot ended December 31, 2009 per Order No. 30267.

On March 13, 2009, Idaho Power filed an application to implement FCA rates reflecting 2008 actual data. According to the application, the average energy use per residential customer decreased in 2008. Idaho Power collected approximately \$1.3 million less for its fixed costs than was established in the agreed-upon residential FCA formula. The application also indicated that the small commercial class saw a decrease in per-customer energy use during 2008. This means Idaho Power under-collected approximately \$1.4 million of its fixed costs for this customer class.

On May 29, 2009, the IPUC issued Order No. 30827 directing Idaho Power to collect the net FCA of \$2.7 million and to distribute the rate adjustment equally across both residential and small commercial customers. This action resulted in a rate surcharge of 0.0529 cents per kWh, effective June 1, 2009, through May 31, 2010, for all residential and small commercial customers. In March 2010, Idaho Power will file an application to implement FCA rates reflecting 2009 actual data.

Performance-Based DSM Incentive Pilot

To complement the FCA Pilot, Idaho Power tested the effects of a Performance-Based DSM Incentive mechanism. On March 12, 2007, the IPUC issued Order No. 30268 authorizing the implementation of a Performance-Based DSM Incentive Pilot that allowed Idaho Power to retain a portion of the financial benefits resulting from DSM activities when energy savings targets are exceeded or be subject to a penalty if savings are under-performed. During the pilot period, the incentive mechanism was applied only to the ENERGY STAR Homes Northwest program. The original pilot duration was three years, 2007–2009.

On March 14, 2008, Idaho Power filed the results of the first year of the pilot mechanism in the *Performance-Based Demand-Side Management Incentive Pilot Performance Update*. According to the final ENERGY STAR Homes Northwest program results for 2007, Idaho Power estimated the program achieved a market share of 5 percent. This value is within the market share dead-band established for 2007 at 5.0 percent to 7.0 percent, and, therefore, Idaho Power was not eligible for a performance incentive nor was Idaho Power subject to a penalty.

On March 11, 2009, Idaho Power filed the results of the second year of the pilot mechanism in the *Matter of the Application of Idaho Power Company for the Authority to Implement Modifications to the Performance-Based Demand-Side Management Incentive Pilot Program, Application for Case No. IPC-E-09-04*. According to the final ENERGY STAR Homes Northwest program results for 2008, Idaho Power estimated the program achieved a market share of 6.2 percent. This value is within the market share dead-band established for 2008 at 5.0 percent to 9.8 percent, and, therefore, similar to the

results of 2007 program year, Idaho Power was not eligible for a performance incentive nor was Idaho Power subject to a penalty.

Through this pilot process, Idaho Power and IPUC staff worked closely on many technical difficulties of how to fairly determine program performance in order to attribute an incentive or penalty. For example, it was difficult to find solid dependable metrics to calculate the actual percentage of ENERGY STAR homes built each year compared to total homes built in the market. There was difficulty in determining the allocation costs when there were both electricity and gas savings achieved. And there were uncertainties about savings per home across service area climate zones. With much effort, Idaho Power and IPUC staff was able to work through these issues. However, there were other events that made the continuation of this pilot challenging. In mid-2008, the Wells Fargo Idaho Construction Report, which was used as a basis for market share calculation, was discontinued. The bottom fell out of the Idaho new home construction market due to national and regional recession. Due to these and other unanticipated challenges confronting the pilot, Idaho Power recommended termination of the pilot. On May 14, 2009, in Order No. 30806, the IPUC approved pilot program termination effective January 1, 2009, with no incentives payments or penalties for Idaho Power for 2007 and 2008.

Despite the challenges during the two years of the Pilot's operation, Idaho Power still believes that a regulatory model that includes a performance-based earnings opportunity for Idaho Power is essential to creating an environment supportive of the acquisition of all cost-effective DSM. A properly designed performance incentive mechanism can be an effective means to properly align customers' energy efficiency goals with the financial goals of the company's shareowners. While this regulatory model represents the ideal, its implementation is both difficult and controversial. Idaho Power is not aware of a jurisdiction where a performance incentive is working to everyone's satisfaction.

Following the discontinuation of its Performance-Based DSM Incentive Pilot program, Idaho Power scheduled a series of three workshops to discuss the development of a broader financial incentive mechanism for its energy efficiency programs. With the company's usual customer and environmental groups in attendance along with representatives from the Regulatory Assistance Project and the IOER, the workshops were intended to generate discussion around desired incentive mechanism characteristics, with hopes of arriving at a preferred design for future implementation.

Throughout the workshop process, the company discussed with participants the various aspects of potential designs and developed a forecast model to predict the financial impact of implementing different mechanisms. Financial modeling results were presented to workshop participants who then provided feedback and suggestions for modifying the proposed mechanisms. Through this iterative process, the company and participants were able to discuss their views on the qualities of a sound mechanism while reviewing the expected financial impact of mechanism characteristics.

While the workshops facilitated productive discussion regarding the views of interested parties in this matter, at the close of the final session, the group had not reached a consensus regarding an optimal mechanism design. The company will continue to evaluate potential performance-based energy efficiency earnings opportunities; however, no proposal has been developed at this time. Idaho Power ultimately intends to use the information and experience gained during the operation of the pilot to develop a performance-based incentive mechanism that can be applied to the entire portfolio of DSM programs.

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ENHANCED COMMITMENT

As part of the FCA implementation process, Idaho Power is committed to enhancing its efforts toward promoting energy efficiency. Idaho Power's overall DSM performance last year is an indication of this commitment. In 2009, the energy savings from Idaho Power's DSM energy efficiency programs increased 23 percent over 2008 levels while expenditures increased 28 percent. In several other key areas, Idaho Power actively pursued numerous, additional opportunities to promote energy efficiency, including, but not limited to:

- Broad availability of efficiency and load management programs
- Building-code improvement activity
- Pursuit of appliance code standards
- Continued expansion of DSM programs beyond peak-shaving/load-shifting programs
- Third-party verification
- Promotion of energy efficiency through electricity rate design
- Idaho Power's internal energy efficiency commitment

Broad Availability of Efficiency and Load Management Programs

In 2009, Idaho Power again broadened the portfolio of programs offered to customers. For example, a demand response option is now available to three customer sectors, residential, irrigation, and commercial/industrial. Also, 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 to ensure that more customers each year have the opportunity to participate in programs. This, in turn, helps customers manage their energy usage. The specific programs added, modified, or expanded in 2009 include:

- A/C Cool Credit expanded the program offering area into the Pocatello area.
- Idaho Power implemented the DHP Pilot throughout the service area in order to promote a new promising technology in the residential sector.
- The Home Improvement Program, formerly the Attic Insulation Pilot, was launched on June 1, 2009 and surpassed first year targets.
- The Home Products Program expanded by offering a new incentive to retailers who sell flat screen televisions that are 30 percent more efficient than current ENERGY STAR® standards.
- A new program, See Ya Later Refrigerator, was launched. The program removes secondary and spare refrigerators and stand-alone freezers in residential homes.
- Based on a successful 2008 pilot, the Weatherization Solutions for Eligible Customers was offered as a permanent program in southern Idaho in March 2009.
- Idaho Power launched FlexPeak Management, a demand response program offered to commercial and industrial customers.
- In March 2009, the Irrigation Efficiency Rewards and Custom Efficiency programs added Green Rewinds, a new best-practices motor rewind service. Idaho Power contracted with GMPG

to offer this service. This is a good example of a measure that applies to different customer sectors and provides peak demand savings as well as energy savings.

- The Irrigation Peak Rewards program expanded the dispatch capability during critical summer peak load events by offering customers the choice of a Timer Option, an Automatic Dispatch Option, or a Manual Dispatch Option.

Building Code Improvement Activity

Through Idaho Power's funding of the NEEA and codes-related efforts, Idaho Power assists in increasing energy efficiency requirements in Idaho's building codes. Idaho Power has two key roles once the codes are adopted, 1) informing the design community of code changes and 2) modifying Idaho Power energy efficiency programs to reflect the new codes. Idaho Power is currently preparing to assist in the process of adopting the 2009 IECC. It is expected the 2009 IECC is expected to be adopted in 2011.

Pursuit of Appliance Code Standards

The following study and recommendations were conducted as part of the 2009 IRP planning process.

Appliance Standards Assessment

Idaho Power contracted with Quantec, LLC, in 2007 to conduct a study of the potential energy savings and costs associated with enacting appliance energy efficiency standards in Idaho similar to the standards enacted in Oregon during 2007. The intent of the evaluation was to provide information regarding the costs and potential for energy savings that would occur if the appliance standards enacted by Oregon were applicable in Idaho. In addition, the evaluation provided information and an analytical base to promote new or additional appliance standards in Idaho. The study also addressed the concern that higher standards already in place in Washington and Oregon would increase the potential of less efficient equipment being marketed and sold to Idaho residents.

Unlike a potential study, Idaho Power's Appliance Standards Assessment did not address the creation of corresponding cost-effective utility programs that would capture the savings discussed in the report. Some basic qualitative information about the level and type of effort required to conduct an appliance standards development program were considered as part of the report, while detailed programmatic recommendations were beyond the scope of the report. The energy-savings shown in the report are similar in methodology to the technical potential savings defined in a typical energy efficiency potential study, where it is assumed that every available measure or appliance is replaced. Table 12 shows the ten appliances that were considered for the study and their status in neighboring states. Table 13 summarizes the total savings forecast if standards were enacted, adopted, and allowed to penetrate the marketplace over 20 years throughout Idaho.

Table 12. Analyzed Appliances and Code Implementation Status

Appliance	Sector	Oregon		Neighboring States	
		Enacted	Effective	Washington	California
Metal halide lamps/fixtures.....	Commercial	2005	2008	Enacted	Enacted
Incandescent reflector lamps.....	Commercial	2005	2007	Enacted	Enacted
External power supplies.....	Commercial/Residential	2005	2007	Enacted	Enacted
Bottle type water dispensers.....	Commercial	2007	2009		Enacted
Hot food holding cabinets.....	Commercial	2007	2009		Enacted
Walk in refrigerators and freezers.....	Commercial	2007	2009		Enacted
Compact audio products (CD players).....	Residential	2007	2009		Enacted
DVD players and recorders.....	Residential	2007	2009		Enacted
Portable electric spas/hot tubs.....	Residential	2007	2009		Enacted
Residential furnace fans.....	Residential	2007	2009		

Table 13. Appliance Standard Potential Savings—Idaho Statewide

Sector	Total Estimated Energy Savings (MWh)	Total Estimated Demand Savings (MW)
Commercial.....	56,916	12
Residential.....	221,893	31
Overall.....	278,809	43

Based on the findings, Quantec recommended that the State of Idaho consider developing and adopting Idaho appliance standards for the first nine appliances shown in Table 12. In addition, Quantec recommended specific alternatives be investigated for the possibility of increasing the efficiency of furnace fans. Quantec also recommended the State of Idaho examine the options and monitor progress in setting standards for general service incandescent and metal halide fixtures.

To support the development of efficiency standards, Quantec also recommended that Idaho Power and other entities in Idaho identify priorities for conducting research and develop the data needed for such efforts. Expanding current collaborative efforts would leverage existing resources and minimize the need for additional resources.

At the state level, Quantec recommended the State of Idaho invest in the capability required to research and adopt standards for the appliances analyzed in the study. In addition, the State of Idaho could investigate the option of developing a regulatory framework similar to California's that would recognize utilities' efforts dedicated to efficiency standards similar to how utility energy efficiency acquisition programs are treated.

Continued Expansion of DSM Programs Beyond Peak-Shaving/Load-Shifting Programs

In 2009, Idaho Power continued to broaden energy efficiency education, promotion, and communication efforts.

The residential sector's, two publications, *30 Simple Things You Can Do To Save Energy* and *Practical Ways to Save Energy*, were translated into Spanish. Over 14,500 book copies of the *30 Simple Things* were distributed, and it was published on Idaho Power's Web site. In addition to continuing the weekly energy efficiency message on The HomeFix Show with Joe Prin, Idaho Power in 2009 aired energy efficiency message on KIVI-TV's Green Living television program throughout the spring and early summer. Idaho Power expanded its sponsorship role in the second annual Idaho Green Expo in July, increased the number of energy efficiency presentations at community organization and events, and again sponsored the Energy Efficiency and Green Living Series held at the Boise Public Library. There were two general education efforts during the year, an energy efficiency insert in to *The Idaho Statesman* in June and a promotion of Energy Efficient Gift Giving during the holidays. In 2009, Idaho Power and CAPAI formed a group to design an educational program for special needs customers who would not be prioritized for weatherization services. The Easy Savings Program provides a kit containing low-cost/no-cost energy saving items to be distributed during the energy assistance/LIHEAP application appointment with customers requesting assistance with Idaho Power bills.

For the commercial and industrial market sector, Idaho Power developed Equipment Efficiency Specification Sheets focusing on energy efficiency opportunities using common equipment configurations. Also, Idaho Power sponsored four classes in an 18-week course for the National Sustainable Building Advisory Program held in conjunction with the IDL.

This year, Idaho Power created a new program, SEE. This program gives Idaho high school students the opportunity to participate in energy assessments of their schools and to use science and math skills to evaluate and make energy improvement recommendations. Twenty schools participated in this program in 2009.

Third-Party Verification

Idaho Power uses third-party consultants to verify that program specifications are met; for evaluation, measurement and verification of the amount of energy savings achieved; and to obtain data on energy efficiency, demand response measures; and programs. Copies of the reports from third-parties are found in *Supplement 2: Evaluation* and in the CD attached in Supplement 2.

The company funds and participates in the RTF. The RTF is an advisory committee that was established in 1999 to develop standards for verifying and evaluating savings from energy efficiency programs and measures. Idaho Power uses the RTF as a source for information on programs and measures and uses the RTF databases to provide deemed savings for some energy efficiency measures.

In 2008, Idaho Power contracted with Nexant, Inc., to assess the market potential for DSM activities in Idaho Power's service area. For this study, Nexant developed spreadsheet models estimating DSM potential as economic conditions and end-use measure assumptions change. Nexant provided a final document in 2009. The information provided by the potential study was included in the 2009 IRP.

Idaho Power contracted with Ecotope, Inc., to provide energy savings estimates for the Attic Insulation Pilot. At the conclusion of the pilot, Idaho Power sought Ecotope's expertise to update the estimated energy savings impacts of the program based on revised assumptions from the pilot. With these updated energy-savings estimates, the cost-effective program continued under the name Home Improvement

Program. Idaho Power also contracted with Ecotope to review the energy savings associated with the H&CE Program. The updated analysis provides energy savings based on actual program results.

The ENERGY STAR Homes Northwest program regularly uses contractors for third-party verification, ensuring that each ENERGY STAR qualified home is built to ENERGY STAR standards. A consultant, Energy Inspectors, then certifies each of these homes as an ENERGY STAR home in Idaho. The ODOE is the certifying organization in Oregon.

The Energy House Calls program contracts with third-party experts to perform QA on 5 percent of homes serviced by the program. These contractors visit the site within approximately one month of the energy house call and verify that the energy efficiency measures were performed to program specifications.

The H&CE Program has a third-party QA contractor. Honeywell, Inc., performs OSVs on approximately 10 percent of completed jobs. Since 2005, the A/C Cool Credit program contracted with a third-party installation contractor, Honeywell, Inc., for installation of radio-pager controlled switches on participants' A/C units. To ensure customer satisfaction, this contractor performs QA inspections on installations and makes follow-up phone calls to recent switch recipients. Honeywell submits weekly reports to Idaho Power program staff on inspections, follow-ups, and results. In 2009, the A/C Cool Credit program was evaluated by a third-party contractor.

Throughout 2009, Idaho Power participated with NEEA to conduct several third-party evaluations. These studies include evaluation of the DHP Pilot, impact evaluation of ENERGY STAR Homes Northwest, and many market effects evaluations in the residential, commercial, and industrial sectors.

In the commercial sector, Idaho Power participated in NEEA's CBSA, updating the original study from 2003, which is used for identifying and verifying commercial building stock characteristics in the Pacific Northwest. Idaho Power contracted with the Cadmus Group for this study, requesting an over-sample of Idaho Power's service area to obtain a statistically valid building sample for program planning purposes.

Idaho Power contracted with the Boise IDL to provide several evaluation functions, including measurement and verification. Under this contract, an evaluation has been completed on certain measures in the Building Efficiency program. Other studies completed by the IDL include an energy-use index, a study on right-sizing of commercial rooftop HVAC systems, and a post-occupancy evaluation. Idaho Power expects to work closely with IDL to study other commercial sector programs in the future.

Promotion of Energy Efficiency through Electricity Rate Design

In February, 2009, under IPUC Order No. 30722 in Case E-IPC-08-10, Idaho Power implemented rate structures designed to encourage energy efficiency for customers in all major rate classes. These rate structures reflect a policy of gradually moving all customers into rates designed to provide customers with cost-based price signals, encouraging the wise and efficient use of energy. Residential customers pay mandatory seasonal, tiered rates. The tiered rate design encourages customers to manage their personal energy usage and monthly bill because the price they pay increases the more they use. Large commercial and industrial customers have seasonal, mandatory time-of-use rates. The rate structure includes three time-of-use blocks during the summer season with the highest rate falling on

weekdays from 1:00 p.m. to 9:00 p.m. An additional on-peak billing demand rate is also in effect during the peak hours. Irrigation customers have load-factor pricing that encourages customers to increase the load utilization of their systems.

In July 2009, as part of General Rate Case UE 213, Idaho Power proposed rates for Oregon customers that mirrored the Idaho rates described above. Again, 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.

Idaho Power's Internal Energy Efficiency Commitment

Idaho Power's continued commitment toward promoting energy efficiency extends beyond encouraging, incenting, and educating its customers. In 2009, The Long Valley Operations Center received Leadership in Energy and Environmental Design (LEED) Gold certification for the new operation facility in Lake Fork, Idaho, constructed in 2008. It is the first facility built by Idaho Power to use an integrated approach to maximize expertise and coordination throughout the process. The energy-saving measures include utilization of day lighting extensively to light the facility, light sensors wherever possible to reduce the electric load of lighting, and under-floor HVAC.

As part of Idaho Power's continual retrofitting of the corporate headquarters (CHQ), Idaho Power completed retrofitting the entire third floor in 2009. The project included installing T-5 lighting that uses 60 percent less energy than old lighting packages and light harvesting near the exterior walls. Shorter 53" wall panels are used for cubical partitions, allowing more daylight and reducing lighting costs. Further retrofits included installing occupancy and vacancy sensors in all enclosed office and meeting spaces, installing low-flow toilets and auto sink faucets in the restrooms, and installing new blinds that are 60 percent opaque with a horizontal range of motion that never need to be closed.

In 2009, T-5 Lighting upgrades with occupancy sensors were installed at the Mini-Cassia Operations Center. Center heaters interlocked to overhead doors in the garages were installed at the Mini-Cassia Operations Center, the Payette Operations Center, and the Canyon Operations Center. In approximately 60 percent of Idaho Power's operations centers, HVAC upgrades were completed.

Beginning in 2008, the company began retrofitting its auditoriums in the CHQ with T-5 lighting with new controls. In 2009, this project was completed.

APPENDICES

This report includes four appendices. Appendix 1 contains financial information for 2009, showing the beginning balance, ending balance, and the expenditures for the Idaho and Oregon Rider, 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 2009. 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.

Additional information is contained in the supplements provided in separate documents in two formats. *Supplement 1: Cost-Effectiveness* contains copies of cost-effectiveness metrics and results. *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, BPA, and NEEA Funding Balances

Idaho Energy Efficiency Rider	
2009 Beginning Balance	\$ (3,942,318)
2009 Funding plus Accrued Interest	26,045,264
Total 2009 Funds	22,102,946
2009 Expenses	(31,821,464)
2009 Year-End Balance	\$ (9,718,518)
Oregon Energy Efficiency Rider	
2009 Beginning Balance	\$ 196,827
2009 Funding plus Accrued Interest	370,267
Total 2009 Funds	567,094
2009 Expenses	(1,433,866)
2009 Year-End Balance	\$ (866,772)
BPA Funding	
Total Funding and Accrued Interest October 2001–December 2008	\$ 3,159,042
2009 Funding plus Accrued Interest	236
Total Funds May 2002–December 2009	3,159,278
Total Expenses—Inception through December 2008	(3,116,793)
2009 Expenses ^(a)	(42,485)
Total BPA Funded Expenses	(3,159,278)
2009 Year-End Balance	\$ 0
NEEA Payments and Escrow Credit Funds Balance	
2009 Idaho Power Contractual Obligation	\$ 1,300,000
Credit Applied to 2009 Contractual Obligation	(325,595)
Interest Credit Applied to 2009 Contract Obligation ^(b)	(6,142)
Total 2009 Cash Payments by Idaho Power	968,263
Credit Balance	
Beginning Balance Funds Held by NEEA	(2,115,153)
2005–2008 Credit Applied to Contract Obligation	1,789,558
2009 Credit Applied to Contract Obligation	325,595
2009 Year-End Balance	\$ 0

^(a) The 2009 BPA expenses were for two Solar 4R Schools projects that Idaho Power committed to pay prior to the suspension of BPA funding in 2007. These projects were scheduled for completion in 2008 but were delayed to 2009.

^(b) The first quarter invoice for the Idaho Power 2009 contractual obligation to NEEA was processed in December 2008 with the amount scheduled to be amortized over the first quarter. Interest credit of \$5,061 was immediately recognized in 2008.

Appendix 2. 2009 DSM Expenses by Funding Source (Dollars)

Sector/Program	Idaho Rider	Oregon Rider	BPA	Idaho Power	Total Program
Energy Efficiency/Demand Response					
Residential					
A/C Cool Credit.....	\$ 3,305,814	\$ 144,622	\$ 0	\$ 1,552	\$ 3,451,988
Ductless Heat Pump Pilot.....	192,264	9,740	0	0	\$ 202,004
Energy Efficient Lighting.....	1,190,065	17,300	0	1	\$ 1,207,366
Energy House Calls.....	479,174	90,420	0	0	\$ 569,594
ENERGY STAR® Homes Northwest.....	348,829	5,928	0	866	\$ 355,623
Heating & Cooling Efficiency Program.....	458,216	20,032	0	125	\$ 478,373
Home Improvement Program.....	321,140	0	0	0	\$ 321,140
Home Products Program.....	498,980	12,283	0	50	\$ 511,313
Oregon Residential Weatherization.....	0	6,359	0	1,285	\$ 7,644
Rebate Advantage.....	43,954	5,571	0	0	\$ 49,525
See Ya Later Refrigerator.....	297,587	7,815	0	0	\$ 305,402
Weatherization Assistance for Qualified Customers.....	0	0	0	1,294,862	\$ 1,294,862
Weatherization Solutions for Eligible Customers.....	160,459	0	0	2,536	\$ 162,995
Commercial/Industrial					
Building Efficiency.....	1,300,466	26,323	0	339	\$ 1,327,128
Easy Upgrades.....	3,213,388	108,533	0	3,584	\$ 3,325,505
FlexPeak Management.....	528,681	0	0	0	\$ 528,681
Holiday Lighting.....	33,673	257	0	0	\$ 33,930
Oregon Commercial Audits.....	0	20,732	0	0	\$ 20,732
Custom Efficiency.....	5,816,305	236,910	0	8,252	\$ 6,061,467
Irrigation					
Irrigation Efficiency Rewards.....	2,112,391	152,134	0	29,371	\$ 2,293,896
Irrigation Peak Rewards.....	9,131,929	451,673	0	71,681	\$ 9,655,283
Energy Efficiency Total.....	29,433,315	1,316,632	0	1,414,504	\$ 32,164,451
Market Transformation					
NEEA.....	919,850	48,413	0	0	\$ 968,263
Consumer Electronics Initiative.....	160,762	0	0	0	\$ 160,762
Market Transformation Total.....	1,080,612	48,413	0	0	\$ 1,129,025
Other Programs and Activities					
Residential					
Residential Energy Efficiency Education Initiative.....	183,143	9,430	0	1,080	\$ 193,653
Commercial					
Commercial Education Initiative.....	114,516	5,962	0	106	\$ 120,584
Other					
Solar 4R Schools ^(a)	0	0	42,485	37	\$ 42,522
Energy Efficiency Direct Program Overhead.....	146,007	8,353	0	10,597	\$ 164,957
Local Energy Efficiency Funds.....	5,622	248	0	0	\$ 5,870
Other Programs and Activities Total.....	449,288	23,993	42,485	11,820	\$ 527,586
Indirect Program Expenses					
Residential Overhead.....	112,984	5,949	0	0	\$ 118,933
Commercial/Industrial/Irrigation Overhead.....	139,101	7,369	0	0	\$ 146,470
Energy Efficiency Accounting and Analysis.....	600,870	31,357	0	124,604	\$ 756,831
Energy Efficiency Advisory Group.....	3,434	180	0	0	\$ 3,614
Special Accounting Entries ^(b)	1,860	(27)	0	(1,977)	\$ (144)
Indirect Program Expenses Total.....	858,249	44,828	0	122,627	\$ 1,025,704
Totals.....	\$ 31,821,464	\$ 1,433,866	\$ 42,485	\$ 1,548,951	\$ 34,846,766

^(a)Residual BPA Conservation Rate Credits

^(b)2008 Expenses reversed in 2009

Appendix 3. 2009 DSM Program Activity

Program	Participants	Total Costs		Savings		Nominal Levelized Costs ^(a)	
		Utility ^(b)	Resource ^(c)	Annual Energy (kWh)	Summer Peak Demand ^(d) (MW)	Utility (\$/kWh)	Total Resource (\$/kWh)
Demand Response							
A/C Cool Credit.....	30,391 homes	\$3,451,988	\$3,451,988	n/a	38.5	n/a	n/a
Irrigation Peak Rewards	1,512 service points	\$9,655,283	\$9,655,283	n/a	160.2	n/a	n/a
FlexPeak Management	33 sites	\$528,681	\$528,681	n/a	19.3	n/a	n/a
Total		\$13,635,952	\$13,635,952	n/a	218.0		
Energy Efficiency							
Residential							
Ductless Heat Pump Pilot.....	96 homes	\$202,004	\$451,604	409,180		18	\$0.086
Energy Efficient Lighting	549,846 bulbs	\$1,207,366	\$1,456,796	13,410,748		5	\$0.024
Energy House Calls.....	1,266 homes	\$569,594	\$569,594	928,875		20	\$0.052
ENERGY STAR® Homes Northwest	474 homes	\$355,623	\$498,622	705,784	1.1	25	\$0.055
Heating & Cooling Efficiency Program	349 homes	\$478,373	\$764,671	1,274,829		18	\$0.054
Home Improvement Program	1,188 homes	\$321,140	\$550,148	1,338,876		25	\$0.032
Home Products Program	9,499 appliances/fixtures	\$511,313	\$844,811	1,638,038		15	\$0.051
Oregon Residential Weatherization	1 home	\$7,644	\$8,409	2,907		25	\$0.223
Rebate Advantage.....	57 homes	\$49,525	\$93,073	247,348		25	\$0.029
See Ya Later Refrigerator	1,661 refrigerators/freezers	\$305,402	\$305,402	1,132,802		8	\$0.041
Weatherization Assistance for Qualified Customers	437 homes/non-profits	\$1,294,862	\$2,146,218	4,678,815		25	\$0.035
Weatherization Solutions for Eligible Customers	41 homes	\$162,995	\$162,995	211,720		25	\$0.059
Sector Total		\$5,465,841	\$7,852,343	25,979,920	1.1	13	\$0.023

^(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 as a whole.

^(d) Summer Peak Demand is reported where program MW reduction is documented. Demand response program reductions are reported with 13% peak loss assumptions.

Appendix 3. 2009 DSM Program Activity (continued)

Program	Participants	Total Costs		Savings		Nominal Levelized Costs ^(a)	
		Utility ^(b)	Resource ^(c)	Annual Energy (kWh)	Summer Peak Demand ^(d) (MW)	Utility (\$/kWh)	Total Resource (\$/kWh)
Commercial							
Building Efficiency.....	72 projects	\$1,327,128	\$2,356,435	6,146,139	1.3	\$0.024	\$0.043
Easy Upgrades	1,224 projects	\$3,325,505	\$10,076,237	35,171,627	6.1	\$0.011	\$0.032
Holiday Lighting Program.....	32 projects	\$33,930	\$72,874	142,109		\$0.031	\$0.066
Oregon Commercial Audits.....	41 audits	\$20,732	\$20,732	n/a		n/a	n/a
Sector Total		\$4,707,295	\$12,526,278	41,459,875	7.4	\$0.013	\$0.034
Industrial							
Custom Efficiency ⁽¹⁾	132 projects	\$6,061,467	\$10,848,123	51,835,612	6.7	\$0.013	\$0.024
Sector Total		\$6,061,467	\$10,848,123	51,835,612	6.7	\$0.013	\$0.024
Irrigation							
Irrigation Efficiency Rewards ⁽²⁾	887 projects	\$2,293,896	\$6,732,268	13,157,619	3.4	\$0.026	\$0.077
Sector Total		\$2,293,896	\$6,732,268	13,157,619	3.4	\$0.026	\$0.077
Market Transformation							
Northwest Energy Efficiency Alliance ⁽³⁾		\$968,263	\$968,263	15,812,652			
Consumer Electronic Initiative		\$160,762	\$160,762	n/a			
Other Programs and Activities							
Residential							
Residential Energy Efficiency Education Initiative		\$193,653	\$193,653				
Commercial							
Commercial Education Initiative		\$120,584	\$120,584				

^(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 as a whole.

^(d) Summer Peak Demand is reported where program MW reduction is documented. Demand response program reductions are reported with 13% peak loss assumptions.

⁽¹⁾ Custom Efficiency savings includes 14 Green Motors participants totaling 33,399 kWh of annual savings, but not in project totals.

⁽²⁾ Irrigation efficiency includes 27 Green Motors participants totaling 195,886 kWh of annual savings, not counted in project totals.

⁽³⁾ Savings are preliminary estimates provided by NEEA.

Appendix 3. 2009 DSM Program Activity (continued)

Program	Participants	Total Costs		Savings		Nominal Levelized Costs ^(a)	
		Utility ^(b)	Resource ^(c)	Annual Energy (kWh)	Summer Peak Demand ^(d) (MW)	Utility (\$/kWh)	Total Resource (\$/kWh)
Solar 4R Schools		\$42,522	\$42,522				
DSM Direct Program Overhead		\$164,957	\$164,957				
Local Energy Efficiency Funds	1 project	\$5,870	\$4,274	10,340			
Total Program Direct Expense		\$33,821,062	\$53,249,979	148,256,018	236.6		n/a
Indirect Program Expense		\$1,025,704	\$1,025,704				
Total DSM Expense		\$34,846,766	\$54,275,683				

^(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 as a whole.

^(d) Summer Peak Demand is reported where program MW reduction is documented. Demand response program reductions are reported with 13% peak loss assumptions.

⁽⁴⁾ Solar 4R Schools program used residual BPA Conservation Rate Credit funds for program support.

Appendix 4. DSM Expense and Performance 2002–2009

Program/Year	Participants	Total Costs			Savings and Demand Reduction			Levelized Costs ^(a)			Program Life Benefit/Cost Ratios ^(b)	
		Utility ^(c)	Resource ^(d)	Annual Energy (kWh)	Average Energy ^(e) (a/MW)	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						
Total.....		\$11,399,954	\$11,399,954							1.09	1.09	
FlexPeak Management												
2009.....	33	\$528,681	\$528,681			19.3						
Total.....		\$528,681	\$528,681							1.11	1.11	
Irrigation Peak Rewards												
2004.....	58	\$344,714	\$344,714			5.6					(1)	
2005.....	894	\$1,468,282	\$1,468,282			40.3					(2)	
2006.....	906	\$1,324,418	\$1,324,418			31.8					(3)	
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						
Total.....		\$15,840,418	\$15,840,418							1.50	1.50	

^(a)Levelized Costs are based on financial inputs from Idaho Power's 2009 IRP, and calculations include line loss adjusted energy savings.

^(b)Program life benefit/cost ratios are provided for active programs only.

^(c)The Total Utility Cost is all cost incurred by Idaho Power to implement and manage a DSM program.

^(d)The Total Resource Cost is the total expenditures for a DSM program from the point of view of Idaho Power and its customers as a whole.

^(e)Average Demand = Annual Energy/8,760 annual hours.

^(f)Peak Demand is reported for programs that directly reduce load or measure demand reductions during summer peak season. Peak demand reduction for demand response programs is reported at the generation level assuming 13% peak line losses.

⁽¹⁾Utility cost restated from \$320,309 in prior historical reporting to reflect all funding sources.

⁽²⁾Peak MW achieved based on mid-week load reduction schedule.

⁽³⁾Peak MW achieved based on equally distributed weekly load reduction schedule.

Appendix 4. DSM Expense and Performance 2002–2009 (Continued)

Program/Year	Participants	Total Costs			Savings and Demand Reduction			Levelized 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												
Ductless Heat Pump Pilot												
2009.....	96	\$202,004	\$451,605	409,180		18	\$0.031	\$0.086				
Total.....	96	\$202,004	\$154,605	409,180		18	\$0.044	\$0.099			1.49	
Energy Efficient Packets												
2002.....	2,925	\$755	\$755	155,757	0.02	7	\$0.001	\$0.001			(4)	
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				
Total.....	1,452,374	\$3,712,884	\$4,106,076	49,860,875		5	\$0.016	\$0.018			2.67	

^(a)Levelized Costs are based on financial inputs from Idaho Power's 2009 IRP, and calculations include line loss adjusted energy savings.

^(b)Program life benefit/cost ratios are provided for active programs only.

^(c)The Total Utility Cost is all cost incurred by Idaho Power to implement and manage a DSM program.

^(d)The Total Resource Cost is the total expenditures for a DSM program from the point of view of Idaho Power and its customers as a whole.

^(e)Average Demand = Annual Energy/8,760 annual hours.

^(f)Peak Demand is reported for programs that directly reduce load or measure demand reductions during summer peak season. Peak demand reduction for demand response programs is reported at the generation level assuming 13% peak line losses.

⁽⁴⁾Utility Cost restated from previously reported \$4,910.

Appendix 4. DSM Expense and Performance 2002–2009 (Continued)

Program/Year	Participants	Total Costs			Savings and Demand Reduction			Levelized 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 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			⁽⁵⁾	
2004	1,708	\$725,981	\$725,981	2,349,783	0.27	20	\$0.025	\$0.025			⁽⁶⁾	
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				
Total	6,920	\$2,452,172	\$2,183,416	7,088,457		20	\$0.029	\$0.026			2.07	
ENERGY STAR® Homes Northwest												
2003		\$13,597	\$13,597			25	\$0.103	\$0.246			⁽⁷⁾	
2004	44	\$140,165	\$335,437	101,200	0.01	25	\$0.045	\$0.056				
2005	200	\$253,105	\$315,311	415,600	0.05	25	\$0.038	\$0.049				
2006	439	\$469,609	\$602,651	912,242	0.10	25	\$0.056	\$0.047				
2007	303	\$475,044	\$400,637	629,634	0.07	25	\$0.048	\$0.059				
2008	254	\$302,061	\$375,007	468,958	0.05	25	\$0.039	\$0.055				
2009	474	\$355,623	\$498,622	705,784	0.08	25	\$0.048	\$0.061				
Total	1,714	\$2,009,204	\$2,541,263	3,233,418		25	\$0.048	\$0.059			1.59	

^(a)Levelized Costs are based on financial inputs from Idaho Power's 2009 IRP, and calculations include line loss adjusted energy savings.

^(b)Program life benefit/cost ratios are provided for active programs only.

^(c)The Total Utility Cost is all cost incurred by Idaho Power to implement and manage a DSM program.

^(d)The Total Resource Cost is the total expenditures for a DSM program from the point of view of Idaho Power and its customers as a whole.

^(e)Average Demand = Annual Energy/8,760 annual hours.

^(f)Peak Demand is reported for programs that directly reduce load or measure demand reductions during summer peak season. Peak demand reduction for demand response programs is reported at the generation level assuming 13% peak line losses.

⁽⁵⁾Utility cost restated from \$183,653 for historical reporting prior to the 2006 DSM report.

⁽⁶⁾Utility costs restated from \$725,732 from historical reports prior to the 2006 DSM report.

⁽⁷⁾Energy savings based on NEEA standardized per home kWh savings estimates. In addition, Utility cost also reports funds subsequently collected on bad loan write off expense. These funds are excluded from the annual levelized cost calculation.

Appendix 4. DSM Expense and Performance 2002–2009 (Continued)

Program/Year	Participants	Total Costs			Savings and Demand Reduction			Peak Demand ^(f) (MW)	Measure Life (Years)	Levelized Costs ^(e)		Program Life Benefit/Cost Ratios ^(b)	
		Utility ^(c)	Resource ^(d)	Annual Energy (kWh)	Average Energy ^(e) (aMW)	Annual Energy (kWh)	Total Utility (\$/kWh)			Total Resource (\$/kWh)	Utility	Total Resource	
Residential Efficiency													
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			
Total.....	712	\$1,457,580	\$1,876,875	1,837,865				18	\$0,071	\$0,091			1.61
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			
Total.....	1,470	\$444,594	\$708,014	1,656,690				25	\$0,021	\$0,033			4.12
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			
Total.....	12,533	\$771,448	\$1,322,142	2,179,653				15	\$0,035	\$0,060			2.72

^(a)Levelized Costs are based on financial inputs from Idaho Power's 2009 IRP, and calculations include line loss adjusted energy savings.

^(b)Program life benefit/cost ratios are provided for active programs only.

^(c)The Total Utility Cost is all cost incurred by Idaho Power to implement and manage a DSM program.

^(d)The Total Resource Cost is the total expenditures for a DSM program from the point of view of Idaho Power and its customers as a whole.

^(e)Average Demand = Annual Energy/8,760 annual hours.

^(f)Peak Demand is reported for programs that directly reduce load or measure demand reductions during summer peak season. Peak demand reduction for demand response programs is reported at the generation level assuming 13% peak line losses.

Appendix 4. DSM Expense and Performance 2002–2009 (Continued)

Program/Year	Participants	Total Costs			Savings and Demand Reduction			Leveled Costs ^(e)		Program Life Benefit/Cost Ratios ^(b)	
		Utility ^(c)	Resource ^(d)	Annual Energy (kWh)	Average Energy ^(e) (a/MW)	Peak Demand ^(f) (MW)	Measure Life (Years)	Total Utility (\$/KWh)	Total Resource (\$/KWh)	Utility	Total Resource
Residential Efficiency											
Oregon Residential Weatherization											
2002.....	24	-\$662	\$23,971	4,580	0.00	25	\$0.010	\$0.389			⁽⁸⁾
2003.....		-\$943									⁽⁹⁾
2004.....	4	\$1,057	\$1,057								
2005.....	4	\$612	\$3,608	7,927	0.00	25	\$0.006	\$0.034			⁽¹⁰⁾
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			
Total.....	37	\$23,033	\$75,513	47,581		25	\$0.037	\$0.123			
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			
Total.....	665	\$408,088	\$1,011,955	2,470,593		25	\$0.013	\$0.032		5.71	2.30

^(a)Leveled Costs are based on financial inputs from Idaho Power's 2009 IRP, and calculations include line loss adjusted energy savings.

^(b)Program life benefit/cost ratios are provided for active programs only.

^(c)The Total Utility Cost is all cost incurred by Idaho Power to implement and manage a DSM program.

^(d)The Total Resource Cost is the total expenditures for a DSM program from the point of view of Idaho Power and its customers as a whole.

^(e)Average Demand = Annual Energy/8,760 annual hours.

^(f)Peak Demand is reported for programs that directly reduce load or measure demand reductions during summer peak season. Peak demand reduction for demand response programs is reported at the generation level assuming 13% peak line losses.

⁽⁸⁾Utility Cost reports reversal of \$2,778 asset from 2001 expense, this amount is included in leveled cost calculation. In addition, Utility cost also reports funds subsequently collected on bad loan write off expense. These funds are excluded from the annual leveled cost calculation.

⁽⁹⁾Utility cost reflects collected funds on previous bad loan write offs.

⁽¹⁰⁾Utility cost reflects only audit and administration costs, there were no further activity in 2006.

⁽¹²⁾Utility cost restated in 2006 from \$37,319 to reflect total expense.

Appendix 4. DSM Expense and Performance 2002–2009 (Continued)

Program/Year	Participants	Total Costs			Savings and Demand Reduction			Levelized 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												
See Ya Later Refrigerator												
2009.....	1,661	\$305,402	\$305,401	1,132,802	0.13	8	\$0.041	\$0.041			1.95	
Total.....	1,661	\$305,402	\$305,401	1,132,802		8	\$0.041	\$0.041			1.95	
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				
Total.....	57	\$215,802	\$211,157	283,399		25	\$0.059	\$0.058			1.76	
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	4,563,632	0.52	25	\$0.021	\$0.033				
Total.....	3,047	\$6,488,078	\$9,506,354	14,769,332		25	\$0.034	\$0.050			1.82	

^(a)Levelized Costs are based on financial inputs from Idaho Power's 2009 IRP, and calculations include line loss adjusted energy savings.

^(b)Program life benefit/cost ratios are provided for active programs only.

^(c)The Total Utility Cost is all cost incurred by Idaho Power to implement and manage a DSM program.

^(d)The Total Resource Cost is the total expenditures for a DSM program from the point of view of Idaho Power and its customers as a whole.

^(e)Average Demand = Annual Energy/8,760 annual hours.

^(f)Peak Demand is reported for programs that directly reduce load or measure demand reductions during summer peak season. Peak demand reduction for demand response programs is reported at the generation level assuming 13% peak line losses.

⁽¹²⁾Total Resource Cost restated in 2005 to include federal funding administered by CAP agencies. 2002–2003 savings not reported due to integration of fuel types.

Program/Year	Participants	Total Costs			Savings and Demand Reduction			Levelized Costs ^(e)		Program Life Benefit/Cost Ratios ^(b)	
		Utility ^(c)	Resource ^(d)	Average Energy ^(e) (a/MW)	Annual Energy (kWh)	Peak Demand ^(f) (MW)	Measure Life (Years)	Total Utility (\$/kWh)	Total Resource (\$/kWh)	Utility	Total Resource
Residential—Weatherization Assistance for Qualified Customers (WAQC)											
WAQC—Oregon											
2002.....	31	\$24,773	\$47,221	0.01	68,323	25	\$0.027	\$0.051			
2003.....	29	\$22,255	\$42,335	0.01	102,643	25	\$0.016	\$0.031			
2004.....	17	\$13,469	\$25,452	0.00	28,436	25	\$0.035	\$0.067			
2005.....	28	\$44,348	\$59,443	0.01	94,279	25	\$0.035	\$0.047		(13)	
2006.....											
2007.....	11	\$30,694	\$41,700	0.00	42,108	25	\$0.054	\$0.074			
2008.....	14	\$43,843	\$74,048	0.01	73,841	25	\$0.040	\$0.068			
2009.....	10	\$33,940	\$46,513	0.01	114,982	25	\$0.023	\$0.031			
Total.....	140	\$213,321	\$336,712		524,612	25	\$0.031	\$0.050	2.19	1.39	
WAQC—BPA Supplemental											
2002.....	75	\$55,966	\$118,255	0.04	311,347	25	\$0.013	\$0.028		(14)	
2003.....	57	\$49,895	\$106,915	0.03	223,591	25	\$0.017	\$0.036			
2004.....	40	\$69,409	\$105,021	0.01	125,919	25	\$0.041	\$0.062			
Total.....	172	\$175,270	\$330,191		660,857	25	\$0.020	\$0.038			

^(a) Levelized Costs are based on financial inputs from Idaho Power's 2009 IRP, and calculations include line loss adjusted energy savings.

^(b) Program life benefit/cost ratios are provided for active programs only.

^(c) The Total Utility Cost is all cost incurred by Idaho Power to implement and manage a DSM program.

^(d) The Total Resource Cost is the total expenditures for a DSM program from the point of view of Idaho Power and its customers as a whole.

^(e) Average Demand = Annual Energy/8,760 annual hours.

^(f) Peak Demand is reported for programs that directly reduce load or measure demand reductions during summer peak season. Peak demand reduction for demand response programs is reported at the generation level assuming 13% peak line losses.

⁽¹³⁾ Total Resource Cost restated in 2005 to include federal funding administered by CAP agencies. 2002-2003 savings not reported due to integration of fuel types.

⁽¹⁴⁾ Beginning in 2005, BPA funds were no longer applied to CAP agency payments; BPA expense in subsequent years is reflected in the respective state expenses.

Appendix 4. DSM Expense and Performance 2002–2009 (Continued)

Program/Year	Participants	Total Costs			Savings and Demand Reduction			Levelized Costs (a)			Program Life Benefit/Cost Ratios (b)	
		Utility (c)	Resource (d)	Annual Energy (kWh)	Average Energy (aMW)	Peak Demand (MW)	Measure Life (Years)	Total Utility (\$/kWh)	Total Resource (\$/kWh)	Utility	Total Resource	
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	12	\$0.043	\$0.052				
2006.....	40	\$374,008	\$463,770	704,541	0.08	12	\$0.058	\$0.072				
2007.....	22	\$669,032	\$130,591	2,817,248	0.32	12	\$0.015	\$0.040				
2008.....	60	\$1,055,009	\$1,671,375	6,598,123	0.75	12	\$0.017	\$0.028				
2009.....	72	\$1,327,128	\$2,356,434	6,146,139	0.70	12	\$0.024	\$0.043				
Total.....	206	\$3,648,065	\$4,884,141	16,760,290		12	\$0.025	\$0.033		1.76		
Easy Upgrades												
2006.....		\$31,819	\$31,819									
2007.....	104	\$711,494	\$1,882,035	5,183,640	0.59	12	\$0.015	\$0.040				
2008.....	685	\$2,992,261	\$10,096,627	25,928,391	2.96	12	\$0.013	\$0.043				
2009.....	1,224	\$3,325,505	\$10,076,237	35,171,627	4.02	12	\$0.011	\$0.032				
Total.....	2,013	\$7,061,079	\$22,086,718	66,283,658		12	\$0.012	\$0.038		1.97		
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				
Total.....	46	\$62,712	\$145,982	401,201		10	\$0.020	\$0.047		1.37		

(a) Levelized Costs are based on financial inputs from Idaho Power's 2009 IRP, and calculations include line loss adjusted energy savings.

(b) Program life benefit/cost ratios are provided for active programs only.

(c) The Total Utility Cost is all cost incurred by Idaho Power to implement and manage a DSM program.

(d) The Total Resource Cost is the total expenditures for a DSM program from the point of view of Idaho Power and its customers as a whole.

(e) Average Demand = Annual Energy/8,760 annual hours.

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

Appendix 4. DSM Expense and Performance 2002–2009 (Continued)

Program/Year	Participants	Total Costs			Savings and Demand Reduction			Leveled Costs ^(a)		Program Life Benefit/Cost Ratios ^(b)	
		Utility ^(c)	Resource ^(d)	Annual Energy (kWh)	Average Energy ^(e) (a/MW)	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								
Total.....	65	\$12,689	\$16,689								
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		
Total.....	347	\$16,135,909	\$42,234,969	154,123,133			12	\$0.012	\$0.031		2.05

^(a)Leveled Costs are based on financial inputs from Idaho Power's 2009 IRP, and calculations include line loss adjusted energy savings.

^(b)Program life benefit/cost ratios are provided for active programs only.

^(c)The Total Utility Cost is all cost incurred by Idaho Power to implement and manage a DSM program.

^(d)The Total Resource Cost is the total expenditures for a DSM program from the point of view of Idaho Power and its customers as a whole.

^(e)Average Demand = Annual Energy/8,760 annual hours.

^(f)Peak Demand is reported for programs that directly reduce load or measure demand reductions during summer peak season. Peak demand reduction for demand response programs is reported at the generation level assuming 13% peak line losses.

⁽¹⁶⁾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.

Appendix 4. DSM Expense and Performance 2002–2009 (Continued)

Program/Year	Participants	Total Costs			Savings and Demand Reduction			Levelized 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												
2003.....	2	\$41,089	\$54,609	36,792	0.00	0.0	15	\$0.106	\$0.141	(16)		
2004.....	33	\$120,808	\$402,978	802,812	0.09	0.4	15	\$0.014	\$0.048	(17)		
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	(18)		
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			
Total.....	3,296	\$9,491,654	\$30,907,095	56,046,582			8	\$0.026	\$0.083		1.16	
Other Programs												
Building Operator Training												
2003.....	71	\$48,853	\$48,853	1,825,000	0.21		5	\$0.006	\$0.006	(19)		
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			

^(a)Levelized Costs are based on financial inputs from Idaho Power's 2009 IRP, and calculations include line loss adjusted energy savings.

^(b)Program life benefit/cost ratios are provided for active programs only.

^(c)The Total Utility Cost is all cost incurred by Idaho Power to implement and manage a DSM program.

^(d)The Total Resource Cost is the total expenditures for a DSM program from the point of view of Idaho Power and its customers as a whole.

^(e)Average Demand = Annual Energy/8,760 annual hours.

^(f)Peak Demand is reported for programs that directly reduce load or measure demand reductions during summer peak season. Peak demand reduction for demand response programs is reported at the generation level assuming 13% peak line losses.

⁽¹⁶⁾ Restated from \$11,190 in prior reports.

⁽¹⁷⁾ Originally reported expense and energy included accrued amounts, restated here to align with accounting records.

⁽¹⁸⁾ Measure life is weighted life (based on energy savings) of custom option (15 years) and menu options (5 years).

⁽¹⁹⁾ Originally reported expense and energy included accrued amounts, 2003 restated from \$36,084; 2004 restated from \$48,853.

Appendix 4. DSM Expense and Performance 2002–2009 (Continued)

Program/Year	Participants	Total Costs			Savings and Demand Reduction			Levelized Costs ^(e)			Program Life Benefit/Cost Ratios ^(b)	
		Utility ^(c)	Resource ^(d)	Annual Energy (kWh)	Average Energy ^(e) (a/MW)	Peak Demand ^(f) (MW)	Measure Life (Years)	Total Utility (\$/kWh)	Total Resource (\$/kWh)	Utility	Total Resource	
Other Programs												
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									
Total.....		\$228,305	\$228,305									
Distribution Efficiency												
2005.....		\$21,552	\$43,969									
2006.....		\$24,306	\$24,306									
2007.....		\$8,987	\$8,987									
2008.....		-\$1,913	-\$1,913									
Total.....		\$52,932	\$75,349									
DSM Direct Program Overhead												
2007.....		\$56,909										
2008.....		\$169,911										
2009.....		\$164,957										
Total.....		\$391,777	\$0									

^(a) Levelized Costs are based on financial inputs from Idaho Power's 2009 IRP and calculations include line loss adjusted energy savings.

^(b) Program life benefit/cost ratios are provided for active programs only.

^(c) The Total Utility Cost is all cost incurred by Idaho Power to implement and manage a DSM program.

^(d) The Total Resource Cost is the total expenditures for a DSM program from the point of view of Idaho Power and its customers as a whole.

^(e) Average Demand = Annual Energy/8,760 annual hours.

^(f) Peak Demand is reported for programs that directly reduce load or measure demand reductions during summer peak season. Peak demand reduction for demand response programs is reported at the generation level assuming 13% peak line losses.

Appendix 4. DSM Expense and Performance 2002–2009 (Continued)

Program/Year	Participants	Total Costs			Savings and Demand Reduction			Levelized 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												
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									
Total.....		\$408,795	\$408,795									
Solar 4R Schools												
2009.....		\$42,522	\$42,522									
Total.....		\$42,522	\$42,522									

^(a)Levelized Costs are based on financial inputs from Idaho Power's 2009 IRP, and calculations include line loss adjusted energy savings.

^(b)Program life benefit/cost ratios are provided for active programs only.

^(c)The Total Utility Cost is all cost incurred by Idaho Power to implement and manage a DSM program.

^(d)The Total Resource Cost is the total expenditures for a DSM program from the point of view of Idaho Power and its customers as a whole.

^(e)Average Demand = Annual Energy/8,760 annual hours.

^(f)Peak Demand is reported for programs that directly reduce load or measure demand reductions during summer peak season. Peak demand reduction for demand response programs is reported at the generation level assuming 13% peak line losses.

Appendix 4. DSM Expense and Performance 2002–2009 (Continued)

Program/Year	Participants	Total Costs		Savings and Demand Reduction			Leveled Costs ^(a)		Program Life Benefit/Cost Ratios ^(b)		
		Utility ^(c)	Resource ^(d)	Annual Energy (kWh)	Average Energy ^(e) (a/MW)	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.....	0	\$23,449	\$23,449								
2005.....	2	\$14,896	\$26,756	78,000	0.01		\$0.024	\$0.042	\$0.009	\$0.135	
2006.....	480	\$3,459	\$3,459	19,027	0.00	10	\$0.009	\$0.009	\$0.135	\$0.049	
2007.....	1	\$7,520	\$7,520	9,000	0.01	7	\$0.019	\$0.047	\$0.064	\$0.072	
2008.....	2	\$22,714	\$60,100	115,931	0.00	12	\$0.046	\$0.046			
2009.....	1	\$5,870	\$4,274	10,340	0.00	10	\$0.046	\$0.046			
Total.....	542	\$83,008	\$130,658	232,298							
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	30,288,169	3.46						
2009.....		\$968,263	\$968,263	15,812,652	1.81						
Total.....		\$8,046,953	\$8,046,953	147,968,510							
Consumer Electronic Initiative											
2009.....		\$160,762	\$160,762								
Total.....		\$160,762	\$160,762								

^(a)Leveled Costs are based on financial inputs from Idaho Power's 2009 IRP, and calculations include line loss adjusted energy savings.

^(b)Program life benefit/cost ratios are provided for active programs only.

^(c)The Total Utility Cost is all cost incurred by Idaho Power to implement and manage a DSM program.

^(d)The Total Resource Cost is the total expenditures for a DSM program from the point of view of Idaho Power and its customers as a whole.

^(e)Average Demand = Annual Energy/8,760 annual hours.

^(f)Peak Demand is reported for programs that directly reduce load or measure demand reductions during summer peak season. Peak demand reduction for demand response programs is reported at the generation level assuming 13% peak line losses.

⁽²⁰⁾ Savings are preliminary estimates provided by the NEEA.

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Appendix 4. DSM Expense and Performance 2002–2009 (Continued)

Program/Year	Participants	Total Costs		Savings and Demand Reduction			Leveled 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											
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.....		\$3,927,212	\$4,860,912	19,202,780	2.19	6.6					
2005.....		\$6,523,349	\$10,383,578	37,978,035	4.34	44.3					
2006.....		\$11,174,181	\$20,950,111	67,026,303	7.65	44.4					
2007.....		\$14,896,816	\$26,125,105	91,145,357	10.40	58.5					
2008.....		\$20,213,215	\$44,601,271	137,772,469	15.67	74.9					
2009.....		\$33,321,062	\$52,925,895	148,256,018	16.69	236.6					
Total Direct Program.....		\$94,954,583	\$165,339,037	536,826,404							
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									
Total.....		\$3,488,675									

^(a)Leveled Costs are based on financial inputs from Idaho Power's 2009 IRP, and calculations include line loss adjusted energy savings.

^(b)Program life benefit/cost ratios are provided for active programs only.

^(c)The Total Utility Cost is all cost incurred by Idaho Power to implement and manage a DSM program.

^(d)The Total Resource Cost is the total expenditures for a DSM program from the point of view of Idaho Power and its customers as a whole.

^(e)Average Demand = Annual Energy/8,760 annual hours.

^(f)Peak Demand is reported for programs that directly reduce load or measure demand reductions during summer peak season. Peak demand reduction for demand response programs is reported at the generation level assuming 13% peak line losses.

⁽²¹⁾ Analysis and indirect expense was not separated in the accounting for this reporting period.

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(21)

Appendix 4. DSM Expense and Performance 2002–2009 (Continued)

Program/Year	Participants	Total Costs		Savings and Demand Reduction		Peak Demand ^(f) (MW)	Measure Life (Years)	Levelized Costs ^(e)		Program Life Benefit/Cost Ratios ^(b)	
		Utility ^(c)	Resource ^(d)	Annual Energy (kWh)	Average Energy ^(e) (a/MW)			Total Utility (\$/kWh)	Total Resource (\$/kWh)	Utility	Total Resource
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									
Total 2002–2009		\$63,596,492									

^(e)Levelized Costs are based on financial inputs from Idaho Power's 2009 IRP, and calculations include line loss adjusted energy savings.

^(b)Program life benefit/cost ratios are provided for active programs only.

^(c)The Total Utility Cost is all cost incurred by Idaho Power to implement and manage a DSM program.

^(d)The Total Resource Cost is the total expenditures for a DSM program from the point of view of Idaho Power and its customers as a whole.

^(e)Average Demand = Annual Energy/8,760 annual hours.

^(f)Peak Demand is reported for programs that directly reduce load or measure demand reductions during summer peak season. Peak demand reduction for demand response programs is reported at the generation level assuming 13% peak line losses.