

## *Demand-Side Management 2006 Annual Report*



*March 15, 2007*

# 2006



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## GLOSSARY OF TERMS

aMW—Average Megawatt  
akW—Average Kilowatt  
A/C—Air Conditioning  
BETC—Business Energy Tax Credit  
BLC—Basic Load Capacity  
BPA—Bonneville Power Administration  
CAP—Community Action Partnership  
CAPAI—Community Action Partnership Association of Idaho, Inc  
C&RD—Conservation and Renewable Discount Program  
CFL—Compact Fluorescent Lighting  
CRC—Conservation Rate Credit  
DOE—U.S. Department of Energy  
DSM—Demand-Side Management  
EEAG—Energy Efficiency Advisory Group  
EEBA—Energy and Environmental Building Association  
Energy Plan—Integrated Resource Plan  
ETO—Energy Trust of Oregon  
HVAC—Heating Ventilation and Air Conditioning  
HVR—Home Voltage Regulator  
IEA—Industrial Efficiency Alliance  
IED—Idaho Energy Division  
IPC—Idaho Power Company  
IPUC—Idaho Public Utilities Commission  
IRP—Integrated Resource Plan (or Energy Plan)  
kW—Kilowatt  
kWh—Kilowatthour  
MW—Megawatt  
MWh—Megawatthour  
NEEM—Northwest Energy Efficiency Manufactured Homes  
NEEA—Northwest Energy Efficiency Alliance  
NWPC—Northwest Power and Conservation Council  
ODOE—Oregon Department of Energy  
OPUC—Public Utility Commission of Oregon

PLC—Power Line Carrier

PTCS—Performance Tested Comfort System

Rider—Idaho Energy Efficiency Rider and Oregon Energy Efficiency Rider

SWAT—Savings With a Twist

V—Volt

WAQC—Weatherization Assistance for Qualified Customers



## PREFACE

Idaho Power Company's (IPC) Demand-Side Management (DSM) 2006 Annual Report provides a review of the financial and operational performance of IPC's DSM activities and initiatives for the 2006 calendar year. These programs provide a wide range of opportunities for all customer classes to balance their energy needs with best-practice energy usage to minimize consumption while realizing the benefits of reliable electrical service.

During 2006, IPC continued to expand the programs that began with the 2004 Integrated Resource Plan (IRP), also known as the Energy Plan, realizing significant gains in customer participation, energy savings, and demand reduction. IPC's 2006 Energy Plan laid the groundwork for the planning and implementation of future programs. This multi-faceted endeavor included the addition of three new DSM programs and set the course for accelerated participation and energy savings. In addition to the DSM programs identified in the Energy Plan, IPC has also continued to pursue other customer-focused DSM initiatives, including programs, educational opportunities, and regional market transformation.

While IPC's DSM activities throughout the past year focused primarily on accelerated program implementation and the planning of future DSM programs, the year's activities also included the continuing commitment to building program infrastructure and the enhancement of customer education programs. In order to accommodate the accelerated program growth and implementation, IPC reorganized and expanded its DSM department. Program design and implementation processes continued to further integrate IPC field and support personnel to better facilitate the building of customer awareness and participation in the programs.

The details of the programs and activities that follow in this report reflect the importance of DSM programs and activities to IPC's balanced

commitment to demand-side resource acquisition.

This DSM Annual Report is prepared to report on IPC's DSM activities and finances throughout 2006, to express IPC's future plans for DSM activities, and to conform to the Idaho Public Utilities Commission's (IPUC) Order No. 29419 and the Public Utility Commission of Oregon's (OPUC) Order No. 89-507.

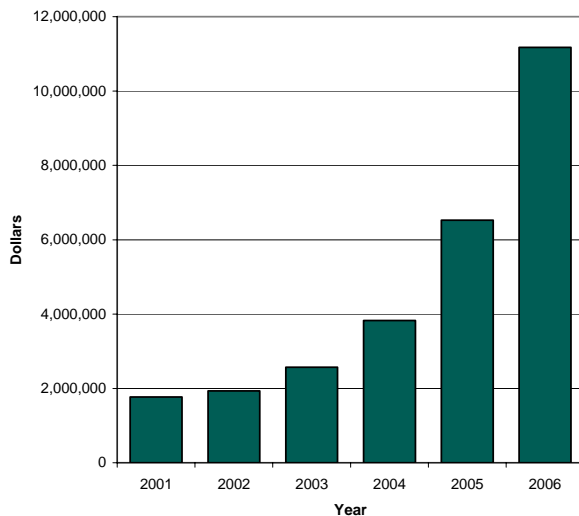


## EXECUTIVE SUMMARY

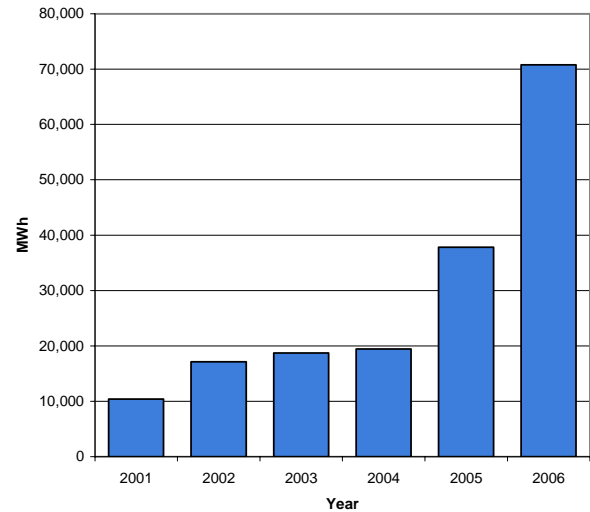
IPC's DSM programs grew significantly during 2006. The energy savings from IPC's 2006 DSM activities increased by 87%, and the expenditures on DSM-related activities increased by 71% compared to 2005 results. DSM activities throughout 2006 were focused predominantly around accelerated program implementation and the planning of future programs and activities. IPC's commitment to ongoing, new, and enhanced DSM programs was reflected in many ways during 2006. IPC completed its second full year of successful implementation of programs identified in the 2004 Energy Plan. It was also the first year of program development and implementation planning for the DSM resources identified in the 2006 Energy Plan. Three new DSM programs were identified in the 2006 Energy Plan, targeting additional opportunities in the Residential, Commercial, and Industrial customer sectors, and reaffirming the importance of DSM programs to IPC's long-term resource acquisition strategy.

Figures 1 and 2 show the accelerating historical growth in expenditures and resource acquisition from 2001 to the present.

**Figure 1.** DSM Expense History 2001–2006



**Figure 2.** DSM Energy Savings 2001–2006



In addition to its DSM operational achievements, IPC made significant progress in the movement toward creating an economic environment more supportive of demand-side resource acquisition. During 2006, IPC took part in a collaborative effort that included representatives from the environmental community and the IPUC. These efforts resulted in two proposals filed with the IPUC in late 2006; one would remove financial disincentives that exist for IPC as it implements DSM programs, and the other would institute financial incentives as a method to encourage a higher level of cost-effective demand-side resource acquisition.

IPC's two main objectives for DSM programs are to:

1. Acquire cost-effective resources in order to more efficiently meet the electrical system's needs; and
2. Provide IPC's customers with programs and information to help them manage their energy and demand use and lower their bills.

IPC achieves these objectives through the development and implementation of programs with specific energy, economic, and customer

satisfaction objectives. When possible, IPC implements identical programs in its Idaho and Oregon service areas.

IPC relies on input from the Energy Efficiency Advisory Group (EEAG) to provide customer and public interest review of DSM programs. Formed in 2002, and meeting multiple times each year, the EEAG is comprised of 12 members representing a cross-section of customer sectors, including residential, industrial, commercial, irrigation, retirees, low-income, and environmental interests. The EEAG also includes members representing the IPUC and the OPUC. In addition to the EEAG, IPC solicits further customer input through stakeholder groups in the residential, irrigation, commercial, and industrial customer sectors.

IPC continued its contractual participation in, and funding of, the Northwest Energy Efficiency Alliance (NEEA) during 2006. NEEA's efforts in the Northwest impact IPC's customers by providing behind-the-scenes regional market changes, as well as structural support, to transform IPC's local markets. IPC continues to leverage the support provided by NEEA in the development and marketing of its local direct acquisition programs, resulting in efficiencies at program implementation.

In 2006, IPC also continued its ongoing participation in the Bonneville Power Administration's (BPA) Conservation and Renewable Discount (C&RD) program. IPC operates several programs with C&RD funding, including Energy House Calls and Rebate Advantage. In 2006, BPA implemented a replacement program for the C&RD program called the Conservation Rate Credit (CRC) program from which partial-year funding was applied to program expense.

## DSM Program Portfolio Structure

The programs within the DSM portfolio are offered to each of the four major customer sectors: Residential, Commercial, Industrial, and Irrigation. Within each of these sectors are individual programs designed to target cost-effective demand reduction and energy savings. The programs are categorized by the operational method through which these savings are realized: Demand Response, Energy Efficiency, Market Transformation, and Other Programs and Activities. A brief description of each of these operational categories follows.

### *Demand Response Programs*

Demand Response programs are designed to reduce customers' electricity loads at specific times of the day and year when electricity is normally in short supply and the cost to supply electricity is high. The goal of Demand Response programs within IPC's DSM portfolio is to reduce the system summer peak demand, thus minimizing the need for acquiring higher-cost, supply-side alternatives, such as gas turbine generation or open-market electricity purchases. Demand Response is usually achieved through the use of load-control devices installed on customer equipment. The measure of program performance is the number of kilowatts (kW) of reduced demand during peak periods.

In developing effective Demand Response programs for reducing system summer peak demand, IPC has targeted residential customers using central air conditioning and irrigation customers using pumping equipment. Together, these two customer sectors represent approximately 60% of IPC's summer peak demand.

### *Energy Efficiency Programs*

Energy Efficiency programs focus on reducing energy usage through identifying buildings,

equipment, or components where energy efficient design, replacement, or repair can yield significant energy savings. These programs are applicable to all customer sectors. The targeted 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 megawatt-hour (MWh) usage for larger projects. These programs usually supply energy benefits throughout the year. Energy Efficiency offerings in 2006 included programs in residential and commercial new construction, school buildings, residential homes, and irrigation and industrial systems, processes, and components.

### Market Transformation

Market Transformation is a method of achieving energy savings through engaging and influencing large national and regional organizations that influence the decisions that impact the design of energy usage in products, services, and methods that affect electrical power consumption.

Implementation of Market Transformation is best achieved by combining common regional

or national interests to leverage synergies. IPC primarily achieves Market Transformation savings through its participation in NEEA.

### Other Programs and Activities

Other Programs and Activities represent a wide range of small projects that are typically research- and development-oriented. This category also includes one-time opportunities to realize DSM objectives that are not within the purview of existing programs. These programs cover any type of cost-effective project or educational opportunity within the scope of IPC's DSM mission. Past projects have included facilitating small demonstration projects featuring new technologies, supporting existing DSM education opportunities in IPC's service area, and developing new educational initiatives.

Table 1 provides a summary of the DSM programs and their respective sectors, as well as operational category and the state in which each was available in 2006.

**Table 1.** DSM Programs, Sectors, and Operational Type

Program	Sector	Operational Type	State
A/C Cool Credit.....	Residential	Demand Response	ID
Building Efficiency Program.....	Commercial	Energy Efficiency	ID/OR
Commercial Education Initiative .....	Commercial	Other Programs and Activities	ID/OR
Energy House Calls .....	Residential	Energy Efficiency	ID/OR
ENERGY STAR® Homes Northwest.....	Residential	Energy Efficiency	ID/OR
Industrial Efficiency.....	Industrial	Energy Efficiency	ID/OR
Irrigation Efficiency Rewards .....	Irrigation	Energy Efficiency	ID/OR
Irrigation Peak Rewards .....	Irrigation	Demand Response	ID/OR
NEEA.....	All	Market Transformation	ID/OR
Oregon Commercial Audits.....	Commercial	Energy Efficiency	OR
Oregon School Efficiency .....	Commercial	Energy Efficiency	OR
Oregon Weatherization.....	Residential	Energy Efficiency	OR
Rebate Advantage.....	Residential	Energy Efficiency	ID/OR
Residential Education Initiative .....	Residential	Other Programs and Activities	ID/OR
Residential Retrofit—Lighting .....	Residential	Energy Efficiency	ID/OR
Small Project/Education Funds.....	All	Other Programs and Activities	ID/OR
WAQC <sup>(1)</sup> .....	Residential	Energy Efficiency	ID/OR

<sup>(1)</sup> Weatherization Assistance for Qualified Customers

## Program Performance

DSM programs at IPC continue to grow with significant increases in participation rates and energy impact in the form of energy savings and demand reduction. In 2006, participation in the A/C Cool Credit program increased by 127%. The Irrigation Peak Rewards and A/C Cool Credit programs resulted in a reduction of coincident system peak demand of approximately 37 MW in 2006 (Table 2). The four Energy Efficiency programs with their genesis in the 2004 Energy Plan were the Industrial Efficiency, commercial Building Efficiency, ENERGY STAR<sup>®</sup> Homes Northwest, and Irrigation Efficiency Rewards programs. These programs resulted in annual savings of 37,814 MWh in 2006, which was a 171% increase over the 2005 energy savings of 13,939 MWh for these programs.

In addition to the Energy Plan programs during 2006, IPC operated several other Energy Efficiency programs targeting residential customers: Weatherization Assistance for Qualified Customers (WAQC), Energy House Calls, Rebate Advantage, and Oregon Residential Weatherization. IPC also continued to expand compact fluorescent lighting (CFL) market-penetration programs in 2006. These Energy Efficiency programs added savings of 10,614 annual MWh in 2006. In conjunction with the 2004 Energy Plan programs, the energy savings from these programs totaled 48,428 annual MWh savings.

Additional significant energy savings continue to be realized through market transformation partnership activities with NEEA. NEEA estimates that 22,337 MWh were saved in IPC's service area during 2006.

Table 2 shows the 2006 annual energy savings, summer peak demand reduction, and average MW (aMW) savings associated with each of the DSM program categories. Unless otherwise noted, all energy statistics presented in this

report are measured or estimated at the customer's meter, excluding line-losses.

**Table 2.** 2006 DSM Energy Impact

	MWh	Peak MW	aMW
Demand Response .....		37	
Energy Efficiency .....	48,409	6	7
Market Transformation .....	22,337		3
Other Programs and Activities....	19		
<b>Total 2006</b>	<b>70,766</b>	<b>44</b>	<b>10</b>

Table 3 provides a comparison of the 2006 contribution of each sector in terms of weather-adjusted energy usage and its respective size in number of customers.

**Table 3.** Sector Comparison

	MWh	% of Energy Usage	Number of Customers <sup>(1)</sup>
Residential .....	4,967,497	36.0%	387,707
Commercial .....	3,742,555	27.0%	59,050
Industrial .....	3,461,474	25.0%	130
Irrigation .....	1,586,989	12.0%	16,612
<b>Total</b>	<b>13,758,515</b>	<b>100.0%</b>	<b>463,499</b>

<sup>(1)</sup> Customers as of December 31, 2006

Please note that energy, demand, and expense data have been rounded to the nearest whole unit, which may result in minor rounding differences.

## DSM Expenditures and Funding

Funding for DSM programs in 2006 came from several sources. The Idaho Energy Efficiency Rider and Oregon Energy Efficiency Rider (the Rider) funds are collected directly from customers on their monthly bills at a rate of 1.5% of base rate revenues, with monthly caps on residential and irrigation customer contributions. IPC also received funds from BPA, which in 2006 were provided through BPA's C&RD and CRC programs. DSM-related expenses not funded through the Rider or BPA



funds, including costs for administration and overhead, are included as part of IPC’s ongoing operation and maintenance costs that are tracked for recovery through base rates. Total DSM expenses funded from these sources were over \$11 million in 2006.

Table 4 provides a summary of the 2006 expenses and energy savings by each funding category.

**Table 4.** 2006 DSM Expenses and Energy Impact

	Expenses	MWh Savings
Idaho Rider Funded.....	\$8,844,913	61,356
Oregon Rider Funded.....	\$235,176	1,632
BPA Funded.....	\$817,042	4,820
IPC Funded.....	\$1,586,882	2,958
<b>Total 2006</b>	<b>\$11,484,013</b>	<b>70,766</b>

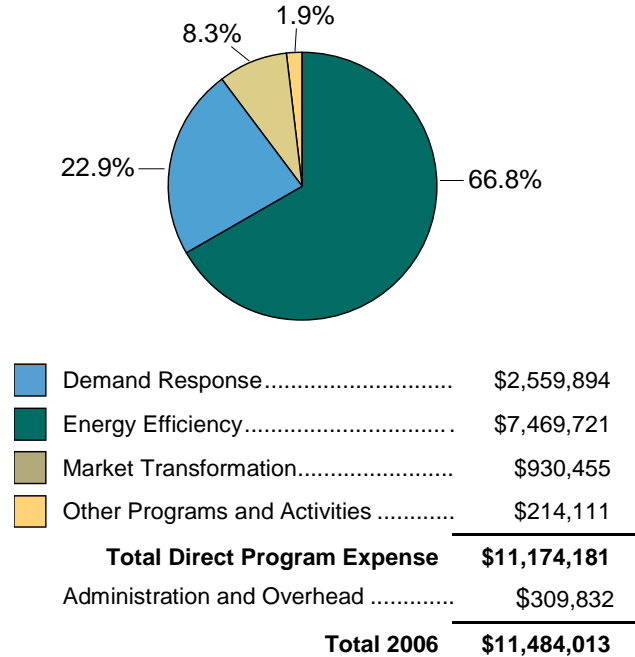
Figure 3 shows the relationships among the 2006 DSM program expenditures by operational category. Direct program expenses include customer incentives and other program-specific costs. Administrative and overhead costs are non-direct program expenses or costs not directly attributable to a specific program.

### Future Plans

Many of IPC’s DSM programs are selected for implementation through its biennial Energy Plan. The Energy Plan is a public document that details IPC’s strategy for economically maintaining the adequacy of its power system into the future. The Energy Plan process balances risk, environmental, economic, and other considerations in developing a preferred portfolio of future resources that meet the specific energy needs of IPC and its customers. The Energy Plan is updated every two years to reflect changes in supply costs, demand for electricity, and other factors. This approach to resource planning is similar to the approaches used by other utility companies, as well as regional power planners such as the Northwest Power and Conservation Council (NWPCC). Shortly after IPC released its 2004 Energy Plan,

NWPCC released its Fifth Power Plan, a comprehensive 20-year energy strategy for the Pacific Northwest. Both plans called for increased levels of DSM resource acquisition.

**Figure 3.** 2006 Program Expense



During the Energy Plan development process, IPC conducts extensive research and analyses to identify an optimal mix of supply- and demand-side resources. IPC also relies on input and guidance from the IRP Advisory Committee as it selects its preferred resource portfolios. The programs identified in the 2004 and 2006 Energy Plans represent IPC’s significant and growing commitment to energy savings through the implementation of DSM programs.

In addition to the 129 peak MW and 20 aMW reductions identified in the 2004 Energy Plan, the 2006 Energy Plan calls for an additional 187 MW of demand reduction and 88 aMW of energy savings by 2025. These additional resources will come from new programs that will be implemented during 2007 and beyond. For example, the ENERGY STAR® Homes Northwest and Building Efficiency programs were developed as a result of the 2004 Energy Plan and seek to increase energy efficiency in

new buildings, while the 2006 Energy Plan calls for programs that will increase energy efficiency in existing structures and facilities in the residential, commercial, and industrial sectors. To meet the targets established in the 2006 Energy Plan, IPC plans to implement several new programs targeted at residential and commercial customers and to expand the existing program for industrial customers. These new programs will lead to a subsequent increase in the level of energy savings and demand reduction.

### **Northwest Power and Conservation Council's Fifth Power Plan Comparisons**

NWPCC's Fifth Power Plan is a regionally recognized document that is often used as a benchmark against which Northwest utilities' resource-acquisition strategies are compared. Most often, these comparisons are confined to the areas of DSM and renewable resource acquisition. While this type of comparison is helpful when trying to evaluate a utility's plan to acquire achievable DSM resources over the long-run, year-to-year comparisons are likely to provide less-relevant information.

IPC's Energy Plan identifies a diverse set of resources that meet specific energy needs in each year during the planning period. As a result, there are many factors that influence the level and type of DSM resources IPC plans to acquire in any specific year. In the 2004 Energy Plan, IPC identified an immediate need for resources that could serve the growing summer peak loads. With that in mind, the 2004 Energy Plan primarily selected DSM resources that targeted energy savings and demand reduction during the summer months. This DSM resource acquisition approach resulted in less energy efficiency savings, but more peak load reduction savings than identified in the Fifth Power Plan. *When the DSM resources identified in the 2004 Energy Plan are combined with the DSM resources identified in the 2006 Energy Plan, the long-run energy efficiency and load*

*reduction targets under both the Energy Plan and the Fifth Power Plan are closely aligned.*

## **Customer Satisfaction**

Customer satisfaction is a key consideration in IPC's program design, operations, and management. IPC utilizes surveys, focus groups, stakeholder input, and input from the EEAG and IPC field personnel. This information and input is used during the design and modification phases of program development and throughout each program's life.

In 2006, the WAQC program developed a satisfaction survey for participants and began mailing the survey in December. This survey inquired about reduced heating and cooling bills and the level of comfort achieved as a result of the program's measures. In addition, the survey asked for information regarding the number and types of additional energy-saving ideas that the customer implemented. The survey results will provide guidance when future modifications to programs are considered.

IPC's commercial Building Efficiency program utilized post-participation satisfaction surveys to measure customer satisfaction, and these surveys showed that 94% of participants felt that they received excellent service and value from IPC.

Another measure of customer satisfaction is the retention rate of on-going programs. IPC has experienced high customer retention in the A/C Cool Credit program with an attrition rate of less than 3%. The majority of attrition was attributed not to satisfaction, but rather necessity associated with customer relocation from an existing residence. The attrition rate for the Irrigation Peak Rewards program is 15%; however, it is difficult to determine the portion of this rate associated with program satisfaction due to the dynamics of the agricultural industry. Non-program-related influences include loss of

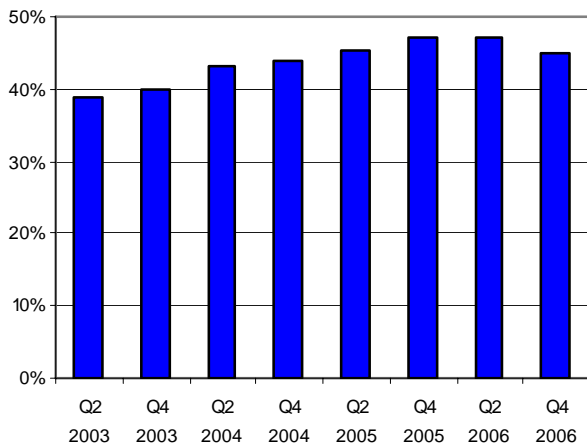


agricultural customers as farms are sold, land-lease changes, and crop rotation practices.

The results of IPC's Quarterly Customer Satisfaction Survey have shown steady improvement over recent years as the percent of customers who have a positive perception of IPC's energy conservation efforts has continued to increase. This trend was steady until the most recent measurement period when a slight dip was recorded. Customers' positive perception of IPC's conservation efforts increased from 39% in early 2003 to 45% in late 2006, which is a 15% increase overall. IPC continues to expand its customer satisfaction measurement activities to identify actionable areas of improvement.

Figure 4 depicts biannual growth in the number of customers who indicated IPC met or exceeded their needs in regard to energy conservation efforts encouraged by IPC.

**Figure 4.** Customer Perception of IPC's Conservation Efforts



## DSM Annual Report Structure

This report's presentation structure is based on customer sector (categorized by Residential, Commercial, Industrial, and Irrigation). Market Transformation and Other Programs and Activities are also presented in separate, but similar categories.

Within each of the customer categories, individual program performance is presented by operational category beginning with Demand Response programs followed by Energy Efficiency programs. The individual program summaries are presented with an overview of operations and results, including customer participation, energy and demand impact, and plans for 2007.

The appendices to this report provide additional detailed program activity and performance data.

In keeping with energy efficiency reporting convention, the energy savings presented in this report are one-year (2006) totals. These annual values do not represent the total life savings associated with the single-year acquisition expenditure. Total life savings are the sum of the recurring annual stream of energy savings associated with a given efficiency measure. The duration of the stream of savings differs by measure and program. Appendices 3 and 4 show the measure-life associated with each program in the DSM portfolio.



## RESIDENTIAL SECTOR OVERVIEW

Residential customers represent IPC’s largest customer sector with over 387,000 accounts. The sector grew 3.3% over 2005, adding more than 12,000 accounts. The residential sector represents approximately 36% of total system energy sales.

### Programs

Programs available to residential customers include one Demand Response program and five Energy Efficiency programs. The Demand Response offering is the A/C Cool Credit program, which achieves peak demand reduction by cycling customers’ central air conditioners. The Energy Efficiency programs include WAQC, Energy House Calls, Rebate Advantage (for manufactured homes), ENERGY STAR® Homes Northwest (for new-home construction), and Residential Retrofit—Lighting. Programs under development in 2006 included Residential Retrofit—Cooling and elements of Residential Retrofit—Lighting.

### Results

The total sector annual energy savings increased by over 50% from 7,520 MWh in 2005 to

11,284 MWh in 2006. Summer peak demand reduction from the A/C Cool Credit program more than doubled to 5.6 MW.

Overall, participation rates for the sector are up over 75% compared to 2005. Participation in the programs selected as a result of the 2004 Energy Plan is up 120%, and CFL distribution is up nearly 150%.

Figure 5 provides a comparative perspective of the 2006 residential direct program expense.

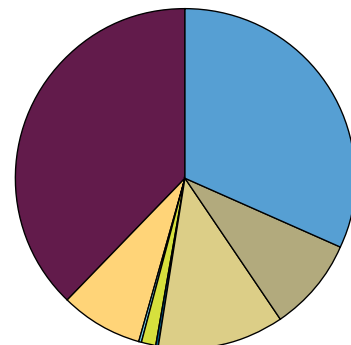
Tables 5 and 6 present the energy savings and demand reduction attributable to each 2006 residential program activity.

**Table 5.** Residential Sector Energy Savings (kWh)

	kWh
A/C Cool Credit .....	NA
Energy House Calls .....	777,244
ENERGY STAR® Homes .....	912,242
Oregon Weatherization .....	–
Rebate Advantage .....	333,494
Residential Retrofit—Cooling .....	NA
Residential Retrofit—Lighting.....	6,302,794
WAQC.....	2,958,024
<b>Total</b>	<b>11,283,798</b>

**Figure 5.** 2006 Residential Sector Direct Program Expense

Residential Sector Programs	Expense	% of All Residential
A/C Cool Credit.....	\$1,235,476	31.9%
Energy House Calls .....	\$336,701	8.7%
ENERGY STAR® Homes .....	\$469,609	12.1%
Oregon Weatherization .....	\$4,126	0.1%
Rebate Advantage .....	\$52,673	1.4%
Residential Retrofit—Cooling .....	\$17,444	0.5%
Residential Retrofit—Lighting.....	\$298,754	7.7%
WAQC .....	\$1,455,373	37.6%
<b>Total</b>	<b>\$3,870,155</b>	<b>100.0%</b>



**Table 6.** Residential Sector Demand Reduction (kW)

	akW	Summer Peak kW
A/C Cool Credit .....	–	5,637
Energy House Calls.....	89	–
ENERGY STAR® Homes .....	104	878
Oregon Weatherization .....	–	–
Rebate Advantage.....	38	–
Residential Retrofit—Cooling .....	–	–
Residential Retrofit—Lighting.....	719	–
WAQC .....	338	–
<b>Total</b>	<b>1,288</b>	<b>6,515</b>

Through this enhanced effort, IPC hopes to increase customer understanding of how program measures improve a home's efficiency and comfort.

## Plans

The substantial growth in energy savings identified in IPC's Energy Plans will be achieved from both new and existing programs in 2007 and beyond. New programs encouraging customers to retrofit their residences with higher efficiency equipment will focus on ENERGY STAR® lighting (Residential Retrofit—Lighting) and efficient cooling measures (Residential Retrofit—Cooling).

Plans for the residential sector in 2007 also include an update to a 2004 assessment of energy savings potential in the residential sector. The new study will focus on updating specific measure-potential unique to IPC's service area in 2007 and beyond.

IPC realizes the importance of customer satisfaction in achieving the level of program participation needed to reach the energy-savings targets and plans to continue implementing a formal customer satisfaction process to increase the availability of quantifiable customer satisfaction information.

In addition to program-specific work, IPC anticipates increasing program participation and satisfaction by increasing its efforts in energy efficiency education for residential customers.

Residential Sector  
Demand Response Program

## A/C Cool Credit

### Program Overview

Target Customers.....	Residential users of central air conditioning units in qualifying areas
Program Life .....	2003–Ongoing

### Summary 2006

Participation.....	5,369 customers
Total Utility Costs.....	\$1,235,476
Funding Sources	
Idaho Rider.....	\$1,230,826
Oregon Rider.....	\$0
BPA .....	\$0
IPC .....	\$4,650
Savings in kWh.....	NA
Savings in kW.....	5,637 (summer peak)

## Description

A/C Cool Credit is a voluntary program for residential customers. Originally developed as a pilot program in 2003 and 2004, the program was selected in the 2004 Energy Plan for implementation in 2005. The program, through the use of communications hardware and software, enables IPC to cycle participants' central air conditioners via a direct load-control device installed on the air conditioning unit. Participants receive a monthly monetary incentive for participating in the program during the summer season. This program enables IPC to directly reduce system peaking requirements during times when summer system demand is high. Presently, the program is available to Idaho residential customers in Ada County, Canyon County, and the Emmett Valley.

Cycling of air conditioning units is achieved through the use of individual radio-controlled or power line carrier (PLC) switches installed on customer air conditioning equipment. These switches cycle customer air conditioners on and off using a cycling period that is initiated on the day before, or the day of, a cycling event. Under

this program, IPC may cycle participants' air conditioners for up to 40 hours each month for the months of June, July, and August.

## Results

IPC initiated 22 load-control events between June 13 and August 21, 2006. The majority of control events were four hours in duration at a 50% cycling rate (one-half of the participants cycled off concurrently). During three events in 2006, the cycling rate was 66%. One cycling event was at a 100% rate, which only lasted nine minutes, but allowed IPC to test the program's full shed capabilities without causing unnecessary customer discomfort.

## Participation

The total number of program participants by the end of 2006 was 5,369. This total included 178 participating customers in the Emmett Valley utilizing the PLC system. Installations occurred year-round in 2006, as supported by the on-going, direct-mail campaigns. As one might expect, installations are relatively low during the non-summer months. However, marketing efforts were increased in the fall of 2006, resulting in higher-than-average non-summer sign-ups late in the year. These efforts included large direct mailings from October through November and the initiation of a weekly direct-mail campaign directed toward new IPC customers. In December 2006, these weekly mailings to new customers averaged 300–400 each week.

Customer response rates for the regional direct-mail marketing program were 4.65% for Ada County, 2.23% for Canyon County, and 3% for the Emmett Valley.

## Demand Impact

The demand effects of this program have been relatively stable over the past three years. On average, IPC expects a 1.05 kW demand reduction per participating household per hour over the course of a 50% cycling event. The

range of variability around this average has been estimated through sampling studies to be 0.81 kW to 1.16 kW per cycling event. This variability is caused by participant usage factors which are impacted by weather and household activity during cycling events. Increasing cycling rates is shown to increase the overall kW reduction of the program. However, IPC primarily uses a 50% cycling rate for this program in order to balance customer satisfaction concerns with maximizing the program's load-reduction potential.

Aside from significant per-unit peak impact, the energy impact of cycling is relatively small. Analysis shows that a participant's average seasonal kWh usage decreases by .89 kWh due to cycling. Although cycling appears to shift some usage from cycling hours to non-cycling hours, the net effect on kWh usage is negligible. This level of load shift is also variable and is primarily dependent on the cycling percentage, participant population usage profiles, and the outside temperature during cycling events.

### ***Plan for 2007***

An escalated installation schedule will begin in 2007, as approximately 12,000 new participants are planned to be added annually to reach the goal of 40,000 program participants by the end of 2009. In order to meet the demand reduction targets of this program, IPC plans to obtain adequate control equipment, implement timely marketing campaigns, and refine installation and customer-care procedures in the upcoming year.

In past years, IPC has leased the communication software. In 2007, IPC plans to purchase and maintain this communications software to operate the radio-controlled switches. This change will improve response time and reduce program life cycle costs.

IPC will continue to manage and monitor the performance of the installation contractors to ensure that customer satisfaction with the program remains high as the number of

installations increases. As IPC increases its marketing efforts in 2007, additional trained installers will be utilized in order to maintain low backlog levels.

Residential Sector  
Energy Efficiency Program

## Energy House Calls

### Program Overview

Target Customers.... Occupants of manufactured homes  
Program Life ..... 2002–Ongoing

### Summary 2006

Participation..... 819 homes  
Total Utility Costs..... \$336,701  
Funding Sources  
Idaho Rider..... \$0  
Oregon Rider.... \$0  
BPA ..... \$336,443  
IPC ..... \$257  
Savings in kWh..... 777,244  
Savings in kW..... 89 (average)

## Description

IPC launched the Energy House Calls pilot program in October 2002 to evaluate the viability of providing duct sealing and additional efficiency measures to IPC customers living in manufactured homes. Upon successful completion of the pilot program, IPC rolled-out the program to its entire service area in 2003. At that time, the program was renamed Energy House Calls for Manufactured Homes (formerly known as Manufactured Home Energy Checkups). This program was funded in 2006 through the BPA's C&RD and CRC funding mechanisms.

BPA funds cover the participant costs and include the following services and products:

- Duct testing and sealing according to Performance Tested Comfort System (PTCS) specifications endorsed by the BPA;
- Three compact fluorescent light bulbs;
- Two furnace filters along with replacement instructions;

- Water heater temperature test for proper setting;
- Energy efficiency educational materials for manufactured home occupants.

The program is managed under contract by Ecos Consulting in partnership with Delta-T Inc., both of whom have experience in managing and providing duct-sealing service programs. These partners coordinate local weatherization and energy efficiency service providers to market and perform the services. Quality assurance is provided by third-party audits in compliance with the BPA's C&RD and CRC guidelines.

## Results

The year 2006 was the fourth full year of operation for this program. The program provided energy savings throughout the year and earned IPC credits in the BPA's CRC program.

## Participation

Participation in this program was lower in 2006 than in the prior year. This was due primarily to a continued focus on recruiting rural customers and those who live in colder climates. This focus represented a shift from the initial program target sector of customers concentrated in communities of manufactured homes. The shift in focus to decentralized, rural manufactured housing units required increased marketing effort and travel time per housing unit.

## Energy Impact

The primary source of savings from the program came from increasing the efficiency of the heating system through improving air delivery from the furnace through the duct system. Improved delivery through the duct system also provided energy savings associated with cooled air where applicable.



The installation of three CFL units into high lighting-use areas also provided additional energy savings.

The furnace filter and water temperature evaluation services provided by the program are designed to educate the occupants on maintaining energy-efficient practices in the future. The energy impact of these measures are not quantified nor included in the total energy impact of the program. Table 7 summarizes 2006 program service activity for Idaho and Oregon customers.

**Table 7.** Energy House Calls 2006 Activity and Energy Savings Summary

	Idaho	Oregon	Total
Activity			
Test Only .....	73	1	74
Test and Seal .....	702	28	730
<b>Total Duct Measures</b>	<b>775</b>	<b>29</b>	<b>804</b>
CFL Bulbs.....	2,319	87	2,406
Furnace Filters.....	1,386	49	1,435
Water Temperature (Average).....	119	117	119
<b>Total Other Measures</b>	<b>3,824</b>	<b>253</b>	<b>3,960</b>
Energy Savings kWh.....	<b>753,177</b>	<b>24,067</b>	<b>777,244</b>

## Plan for 2007

In late 2006, IPC focused on determining the saturation level of this program in the market to assess whether or not to continue the program into 2007. IPC found that a significant number of qualified homes that can benefit from the services of the program remain in the service area; however, not everyone who is eligible will choose to participate. Thus, as the Energy House Calls program matures, it will reach a point where it is no longer financially feasible to promote this program to a small number of receptive, potential participants.

While researching the Energy House Call program's market saturation level and testing a different marketing method, IPC will extend the program for the first three months of 2007. In

the past, IPC has utilized bill stuffers, the Customer Connection newsletter, advertisements in newspapers, and contractors in the field to recruit new participants. In late 2006 and into 2007, IPC initiated a direct-mail program to customers whose house-type data on IPC's customer information system indicated that it was a mobile or manufactured home. Initial response rates to the campaign have been at a rate of about 5%, exceeding the average direct-mail marketing averages (for all-industry marketing) of approximately 3%. Additional benefits of this marketing method include better geographic targeting and more productive workload management.

In the first quarter of 2007, IPC will determine if it is feasible to continue the program through the end of 2007. IPC will continue to focus on homes with a high potential energy savings. Available housing units with such credits are concentrated in Twin Falls, Pocatello, and in the mountain communities in the Idaho and Oregon service areas.

An additional change to the program for 2007 is the increase of CFL installations per home from three to five bulbs per home. This increase will provide additional energy savings and reduced customer bills.



Residential Sector  
Energy Efficiency Program

## ENERGY STAR<sup>®</sup> Homes Northwest

### Program Overview

Target Customers.... Buyers of new residential homes  
Program Life ..... 2004–Ongoing

### Summary 2006

Participation..... 439 homes

Total Utility Costs..... \$469,609

#### Funding Sources

Idaho Rider..... \$461,315

Oregon Rider.... \$5,322

BPA ..... \$0

IPC ..... \$2,972

Savings in kWh..... 912,242

Savings in kW..... 878 (summer peak)

## Description

The ENERGY STAR<sup>®</sup> Homes Northwest Program is a regionally coordinated initiative supported by a partnership of IPC, NEEA, and the State of Idaho Energy Division to improve energy-efficient construction practices for single-family homes. The program was selected for implementation in the 2004 Energy Plan. The target of the program is to provide homes that are 30% more energy-efficient than those built to standard Idaho residential code. The program focuses on the reduction of peak summer demand by increasing the efficiency of residential building envelope construction practices and air conditioning equipment and air delivery.

The primary market activities and incentives provided by IPC are:

- A \$750 incentive per qualifying home to participating builders (\$1,000 for Parade of Homes units);

- Program management services to coordinate the local partnerships between IPC, builders, and real estate service providers;
- Educational and training activities for residential new construction industry partners;
- Consumer marketing communications conveying the benefits of ENERGY STAR<sup>®</sup> homes.

## Results

In 2006, the number of certified homes increased by nearly 120% over 2005, from 200 homes to 439 homes. Participating builders increased from 63 to 119. IPC implemented two realtor training sessions and sponsored the Parade of Homes shows in Ada, Canyon, and Bannock counties. The marketing campaign for this program included billboard advertising, customer bill stuffers, print ads in real estate tabloids, and public relations events. IPC sponsored and hosted a national educational event, the Energy and Environmental Building Association's (EEBA) *Houses That Work* in Boise, attracting nearly 170 attendees.

## Participation

While builder participation increased, the number of certified homes fell short of the level needed to meet the 2004 Energy Plan energy target of 1,402,724 kWh or 675 homes for 2006. Nearly 90% of the ENERGY STAR<sup>®</sup> homes completed were built in the Treasure Valley. The program's market share in 2006 was approximately 5% of the total single-family housing starts (based on preliminary estimates) in IPC's service area.

## Energy Impact

While there is variation in each home's energy savings and demand reduction, the average energy savings from an ENERGY STAR<sup>®</sup> Home is 2,078 kWh, with a demand reduction

of 2 kW based on a study completed for IPC by Ecos Consulting.

### ***Plan for 2007***

IPC's 2007 energy target established in the 2004 Energy Plan for this program is 1,414,166 kWh, or approximately 681 certified homes. In order to meet this goal, IPC will engage in activities to:

- Increase builder education and participation in the program;
- Increase realtor, subcontractor, lender, and appraiser outreach programs;
- Improve timeliness in quality assurance inspections;
- Increase participation in the Oregon service area;
- Develop and implement a comprehensive marketing strategy to target consumers and builders;
- Continue to target the Treasure Valley's largest homebuilder for participation in the program.

Residential Sector  
Energy Efficiency Program

## Oregon Residential Weatherization

### Program Overview

Target Customers.... Oregon residential customers  
Program Life ..... 1982–Ongoing

### Summary 2006

Participation..... No participation in 2006  
Total Utility Costs.... \$4,126  
Funding Sources  
Idaho Rider ..... \$0  
Oregon Rider .... \$0  
BPA ..... \$0  
IPC ..... \$4,126  
Savings in kWh..... None  
Savings in kW..... None

Natural Gas, and five follow-up calls to customers had no response.

### Energy Impact

None of the 2006 audit participants chose to implement energy-saving measures during the year.

## Description

IPC offers free energy audits for electrically heated homes of customers within the Oregon service area. Upon request, an IPC representative visits the home to analyze it for energy efficiency. An estimate of costs and savings for specific measures is given to the customer. IPC offers financial assistance for a portion of the costs for weatherization measures, either as a cash incentive or with a 6.5% interest loan.

## Results

### Participation

In 2006, 34 Oregon customers responded to an informational brochure about energy audits and home weatherization financing in 2006. Each of the 34 customers returned a card from the informational brochure indicating they were interested in a home energy audit, weatherization loan, or cash payment. Twenty-four audits and responses to customer inquiries to the program were completed, five customer responses were directed to Cascade

Residential Sector  
Energy Efficiency Program

## Rebate Advantage

### Program Overview

Target Customers.... Residential buyers of new  
manufactured homes  
Program Life ..... 2003–Ongoing

### Summary 2006

Participation..... 102 homes  
Total Utility Costs..... \$52,673  
Funding Sources  
Idaho Rider..... \$0  
Oregon Rider.... \$0  
BPA ..... \$52,673  
IPC ..... \$0  
Savings in kWh..... 333,494  
Savings in kW..... 38 (average)

## Description

In 2003, IPC launched a program to encourage manufactured home buyers to purchase energy-efficient Super Good Cents<sup>®</sup> or ENERGY STAR<sup>®</sup> homes. The program, formerly called Energy Efficient Manufactured Home Incentives, was renamed Rebate Advantage at the start of 2004.

Rebate Advantage promotes and educates buyers and retailers of manufactured homes about the benefits of owning energy-efficient models. The program offers financial incentives using a two-pronged approach. Customers who purchase a Super Good Cents<sup>®</sup>/ENERGY STAR<sup>®</sup> home and site it in IPC's service area are eligible for a \$300 incentive. In addition, the salesperson receives a \$75 incentive for each qualified home sold. This program is funded by the BPA.

Quality control and energy efficiency specifications for qualified homes are established by the Northwest Energy Efficiency Manufactured Homes (NEEM) program. NEEM is a consortium of manufacturers and state energy offices in the Northwest. In addition to

specifications and quality control, NEEM tracks the production and on-site performance of Super Good Cents<sup>®</sup> or ENERGY STAR<sup>®</sup> homes.

## Results

The license to use the Super Good Cents<sup>®</sup> designation in the Pacific Northwest was discontinued as of September 30, 2006. Initially, BPA funding guidelines directed that, effective October 1, 2006, new homes must be manufactured under ENERGY STAR<sup>®</sup> standards and be certified as such by NEEM. Subsequent to this decision, the BPA decided to also accept the following homes for credit until October 1, 2007:

- Manufactured homes certified by NEEM as Super Good Cents<sup>®</sup>;
- Manufactured homes sold as Super Good Cents<sup>®</sup> homes prior to October 1, 2006, which subsequently receive the NEEM-certified designation.

## Participation

Participation in the program was fairly steady throughout the year and similar in volume to previous years. Participants typically are from small, rural towns in IPC's service area. The geographic reach of this program is noteworthy, as seen in Table 8, in which Oregon homes represent 14% of the total homes participating. Approximately one-third of all manufactured home dealers with sales in IPC's service area are participating in this program.

**Table 8.** Rebate Advantage 2006 Activity and Energy Savings Summary

	Idaho	Oregon	Total
Activity			
Homes .....	88	14	102
Towns with Homes Sited .....	38	7	45
Counties with Homes Sited .....	14	2	16
Salespeople <sup>(1)</sup> .....	28	10	30
Dealers <sup>(1)</sup> .....	16	7	18
Manufacturers <sup>(1)</sup> .....	11	7	12
Energy Savings kWh.....	295,694	37,800	333,494

<sup>(1)</sup> Some sales groups sell in both Idaho and Oregon. Totals reflect unique instances only.

## Energy Impact

Savings in this program are largely due to improvements in the shell of the home, resulting in more efficient use of heating and cooling resources. Manufacturers have some flexibility in how they achieve a more efficient shell; however, a common attribute of all homes in the program is a sealed-duct delivery system. Absolute savings are dependent upon the heating and cooling climate zone in which the home is sited. Energy savings for the year are 333,494 kWh.

While the program's focus is on overall energy efficiency, peak demand impacts from reduced air conditioning can be attributed to the program.

## Plan for 2007

The program will continue to be funded by the BPA's CRC program in 2007. The 2007 goal for this program is 150 certified homes. To accomplish this aggressive target, IPC will increase its manufactured home dealer outreach.

Residential Sector  
Energy Efficiency Program

## Residential Retrofit—Lighting

### Program Overview

Target Customers..... Residential users of incandescent lighting  
Program Life ..... Fall 2005–Ongoing

### Summary 2006

Participation..... 178,514 CFL bulbs  
Total Utility Costs..... \$298,754  
Funding Sources  
Idaho Rider..... \$110,036  
Oregon Rider.... \$1,250  
BPA ..... \$183,738  
IPC ..... \$3,731  
Savings in kWh..... 6,302,794  
Savings in kW..... 719 (average)

## Description

The 2006 Energy Plan identified increased residential efficiency programs associated with lighting to capture a wider range of residential efficiency measures. In 2006, IPC continued its participation in regional lighting promotion initiatives, sponsored by the BPA, called Savings With a Twist (SWAT). Thus, the year represented both development and implementation for residential retrofit activities.

IPC has participated in recent, regional lighting promotion programs in an effort to offer energy-saving opportunities to residential customers. In 2005, this activity was reported under the SWAT program.

As a result of its commitment to new energy savings targets developed in the 2006 Energy Plan, IPC established the Residential Retrofit—Lighting program to capture the wider range of initiatives in the residential lighting arena. In 2006, the activities in this program were associated with future program design, as well as the SWAT initiatives, which are discussed below.

IPC continued its partnership with the Northwest ENERGY STAR<sup>®</sup> Consumer Products program and the BPA to promote CFL bulbs as a substitute for inefficient, incandescent lighting. The SWAT program was designed to highlight attractive promotional pricing and motivate consumers to change out incandescent bulbs with energy-efficient CFL units. Initial program funding was through the Idaho Rider. The program was launched in the fall of 2005 and ran through the early winter of 2006 (only 2006 impacts of the 2005 program are reported). Given its success, the regional partners staged a second program, initiated by BPA, for the fall of 2006.

Residential customers are the primary target market. The primary goals of the programs were as follows:

- Build awareness of the efficiency and other benefits of CFL lighting;
- Highlight recent improvements in lighting technology and quality;
- Continue to build market penetration, especially in smaller, rural markets;
- Capture incremental energy savings in residential lighting use.

IPC's participation included funding paid directly to manufacturers of CFL bulbs to reduce or "buy-down" the retail price of select CFL bulbs. The buy-down reduced in-store prices to as low as \$0.99 per bulb.

## Results

Much of the program activity in early 2006 consisted of residual transactions associated with program efforts initiated in 2005. IPC's role during this phase was to simply support retailers that had additional bulb inventories available for sale in 2006. However, as the

program was reinstated in the fall of 2006, the region shifted its focus to recruiting stores that served small, rural markets. Marketing was focused on in-store, point-of-purchase collateral to limit confusion among customers regarding product-inventory availability. In addition, IPC utilized its regional staff to support the program with in-store visits.

For the reinstated fall 2006 initiative, the program operated in both Idaho and Oregon and was funded by BPA–CRC funds.

The per-bulb buy-down for the program that operated in 2005 was \$1.25 per bulb. The per-bulb buy-down for the fall 2006 initiative was \$1.60. The increase created a higher incentive for the manufacturers to ensure a more reliable supply of bulbs.

## Participation

Retailer participation has included both large and small companies in hardware, drug, grocery, and discount store channels throughout the IPC service area. For the 2006 program, 11 retailers and four manufacturers participated in the program. Problems with product supply in the 2005 program were addressed prior to the implementation of the 2006 program. While not part of the primary target audience for this program, small commercial customers were likely participants in the program because the participating retailers also served this customer sector. Energy savings totals are adjusted for bulbs sold within IPC's service area but assumed to be installed by out-of-service participants.

## Energy Impact

The energy impact of the program was initially derived through guidance from the NWPCC. The guidance called for derivation of savings based upon the difference between incandescent bulbs and CFL bulb replacement, and adjusted for variable impacts due to regional differences including heating impact, market saturation rates, and lighting-usage profiles. This method

yielded an estimated average energy savings of 39.6 kWh per CFL bulb and was used to calculate the savings achieved under the first program phase.

Since the second program phase was funded through the BPA's CRC program, the energy savings for that portion of the program was estimated based on a number established by the BPA. The regional average energy savings per bulb established by the BPA was 32.8 kWh. The difference in the savings-per-bulb rate under the two methods was due primarily to differences in market penetration in the region compared to IPC's service area. For example, increased penetration rates resulted in the installation of newly purchased bulbs into lesser-used fixtures, resulting in fewer hours of usage and subsequent savings.

## Plan for 2007

BPA designed a new CFL mark-down program called Change a Light, Change the World that focused on selling specialty bulbs through "big box" retail stores during the spring of 2007. IPC will participate in this new program and will evaluate any other regionally-supported lighting opportunities for implementation. BPA is presently evaluating its fall 2006 program. It is uncertain if the BPA will sponsor another CFL promotion event similar to SWAT in the fall of 2007. Beyond these regional initiatives, IPC will be targeting additional opportunities to make ENERGY STAR<sup>®</sup>-qualified lighting available to a broader range of customers, and increase the number of CFLs installed in the homes of those customers who currently have some CFLs installed.



Residential Sector  
Energy Efficiency Program

## Weatherization Assistance for Qualified Customers

### Program Overview

Target Customers.... Qualifying residential customers  
Program Life ..... 1989–Ongoing

### Summary 2006

Participation..... 540 dwelling units  
Total Utility Costs..... \$1,455,373  
Funding Sources  
Idaho Rider..... \$0  
Oregon Rider.... \$0  
BPA ..... \$79,950  
IPC ..... \$1,375,422  
Savings in kWh..... 2,958,024  
Savings in kW..... 338 (average)

## Description

Weatherization Assistance for Qualified Customers (WAQC) has been operating since 1989. The program provides funding for the installation of cost-effective weatherization measures in qualified owner-occupied and rental homes that are electrically heated. These enhancements enable low-income families to maintain a more comfortable home environment, while helping save energy and money otherwise spent on heating, cooling, and lighting.

The program 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 Department of Housing and Community Services in Oregon.

IPC serves as the administrator of the program in conjunction with the Community Action Partnership (CAP) agencies serving the IPC service area. Funding for the program is a combination of federal government funds and IPC base rates. The federal funds are distributed

to CAP agencies based upon U.S. Census data of qualifying household income within each CAP agency's geographic area of influence. The agencies oversee local weatherization crews and contractors for implementation. IPC funds the program subject to cost effectiveness of measures applied.

## Results

The allowable annual average project cost from January through September 30, 2006 was \$2,304. Idaho CAP agencies together averaged \$2,294 for that time period. In October 2006, the annual average cost allowable per home was raised from \$2,304 to \$2,826 per home to match the state DOE program per-home average. Expenditures for Health and Safety measures were 7.5 % of IPC's total project cost. IPC allowed Health and Safety measures to be funded up to 15% of the total project cost annually.

## Participation

Eight CAP agency executive directors signed weatherization agreements with IPC in 2006. Five of the eight are located in Idaho and three are located in Oregon. The five Idaho agencies completed a total of 540 projects. Oregon weatherization departments completed projects late in 2006 to be submitted to IPC for payment and reporting in 2007.

The CAP agencies that have signed agreements with IPC to provide weatherization services are: Canyon County Organization on Aging and Community Services (CCOA); El-Ada Community Action Partnership (El-Ada); Eastern Idaho Community Action Partnership (EICAP); South Central Community Action Partnership (SCCAP); South Eastern Idaho Community Action Agency (SEICAA); Malheur Council on Aging (MCOA); Harney County Senior and Community Service Center (HCSCS); Community Connections NE Oregon (CCNO).



### Energy Impact

Prior to the allowable average project cost increase in October, the funded energy efficiency measures by Idaho agencies averaged 5,096 kWh savings per home. With the recent increase in allowable expense, average annual energy savings per home increased to 5,567 kWh.

Two non-profit projects were completed with a total of 74,927 kWh annual savings.

Table 9 shows IPC expenses for the program by CAP agency and non-profit organizations for Idaho and Oregon. Additional funding for the program is provided by government funds made available to the CAP agencies. In 2006, these funds totaled \$773,085.

**Table 9.** Weatherization Assistance 2006 Year-End IPC Expenses

	2006	
	Projects	Expenses
<b>IPC Payments</b>		
CAP Agencies		
CCOA.....	98	\$259,477
El-Ada.....	259	\$661,050
EICAP.....	9	\$22,788
SCCAP.....	124	\$247,557
SEICAA.....	48	\$113,938
<b>ID Total</b>	<b>538</b>	<b>\$1,304,810</b>
MCOA—OR.....	0	\$0
HCSCS—OR.....	0	\$0
CCNO—OR.....	0	\$0
<b>OR Total</b>	<b>0</b>	<b>\$0</b>
<b>Total CAP Agencies</b>	<b>538</b>	<b>\$1,304,810</b>
Non-Profit Projects		
Non-Profits—ID.....	2	\$39,240
Non-Profits—OR.....	0	\$0
<b>Total Non-Profit</b>	<b>2</b>	<b>\$39,240</b>
<b>Total IPC Payments</b>	<b>540</b>	<b>\$1,344,050</b>
<b>IPC Administration</b>		<b>\$111,323</b>
<b>Total IPC Program Expense</b>		<b>\$1,455,373</b>

Table 10 shows the annual energy savings from the efforts of the program in 2006 totaling 2,958,024 kWh.

**Table 10.** Weatherization Assistance 2006 Year-End Energy Savings

	kWh Savings for 2006
<b>CAP Agencies</b>	
CCOA.....	946,722
El-Ada.....	1,296,969
EICAP.....	34,509
SCCAP.....	397,181
SEICAA.....	207,716
<b>ID Total</b>	<b>2,883,097</b>
MCOA—OR.....	0
HCSCS—OR.....	0
CCNO—OR.....	0
<b>OR Total</b>	<b>0</b>
<b>Total CAP Agencies</b>	<b>2,883,097</b>
<b>Non-Profit Projects</b>	
Non-Profits—ID.....	74,927
Non-Profits—OR.....	0
<b>Total Non-Profit</b>	<b>74,927</b>
<b>Total kWh Savings</b>	<b>2,958,024</b>

### Plan for 2007

IPC expects the program activity during 2007 to maintain the same annual pace as that achieved in 2006. To help ensure continued program activity, IPC plans to be a party with Community Action Partnership Association of Idaho, Inc. (CAPAI) in a joint application requesting the IPUC authorize continued funding for WAQC at the level authorized in Order No. 29505 issued May 25, 2004, in Case No. IPC-E-03-13. It is anticipated that the application will be filed with the IPUC in the first quarter of 2007. A total of 467 dwelling units are targeted for completion during the year.

Individual goals for Idaho and Oregon and dwelling-unit types have also been established as follows:

- Idaho—434 dwelling units: 430 homes and four non-profit-sponsored housing units;
- Oregon—34 dwelling units: 33 homes and one non-profit-sponsored housing unit.

Expected energy savings for these projects are targeted at 2,757,000 kWh.

## COMMERCIAL SECTOR OVERVIEW

The commercial sector consists of over 59,000 customers in IPC’s service area, representing approximately 27% of total system energy sales.

In recent years, most of IPC’s DSM efforts in the commercial sector have been focused on implementing energy efficiency measures in new construction projects, which represent a small, but important, subset of the potential savings in the sector. Large commercial buildings can achieve energy savings that are only cost-effective at the time of construction and would otherwise be lost. In 2006, it is estimated there were approximately 1,200 to 1,500 new commercial buildings built in IPC’s service area with an equal number of commercial building additions or major renovations available for capturing this lost opportunity.

### Results

The total sector annual energy savings achieved has increased by about 88% from 2005 to 2006, from 494,239 kWh to 927,909 kWh (Table 11). Participation has increased even more significantly. Completed energy efficiency projects in 2006 were nearly three times those completed in 2005.

**Table 11.** Commercial Sector Energy Savings (kWh)

	kWh
Building Efficiency .....	704,541
Commercial Retrofit .....	NA
Oregon Commercial Audit .....	NA
Oregon School Efficiency .....	223,368
<b>Total</b>	<b>927,909</b>

Table 12 presents the demand reduction attributable to each 2006 commercial program activity.

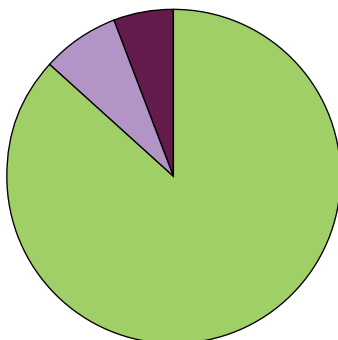
**Table 12.** Commercial Sector Demand Reduction (kW)

	akW	Summer Peak kW
Building Efficiency .....	80	338
Commercial Retrofit .....	NA	NA
Oregon Commercial Audit .....	NA	NA
Oregon School Efficiency .....	26	NA
<b>Total</b>	<b>106</b>	<b>338</b>

The increases in savings and participation are attributed to heightened customer awareness and larger projects providing greater energy impacts (both electricity savings and peak demand reductions).

Figure 6 provides a comparative perspective of the 2006 commercial direct program expense.

**Figure 6.** 2006 Commercial Sector Direct Program Expense



Commercial Sector Programs	Expense	% of All Commercial
Building Efficiency .....	\$374,008	86.9%
Commercial Retrofit .....	\$31,819	7.4%
Oregon School Efficiency .....	\$24,379	5.7%
<b>Total</b>	<b>\$430,206</b>	<b>100.0%</b>

## Plans

The 2006 Energy Plan identified a significant expansion for the commercial sector planned for implementation in 2007.

This expansion targets existing commercial structures with a wide range of energy-savings measures that will be available to the entire commercial sector, as well as a subset of industrial customers (those served under Schedule 19 and by special contract). A retrofit program, Easy Upgrades, will provide these same customers with streamlined access to an array of menu options for energy-savings measures.

In 2007, IPC plans to develop a commercial energy efficiency education initiative similar to a residential sector program developed in 2006. In addition, improved customer satisfaction evaluation and communication methods and materials are continually being developed to increase program satisfaction, awareness, and participation.

Commercial Sector  
Energy Efficiency Program

## Building Efficiency

### Program Overview

Target Customers....	Commercial new buildings and significant construction projects
Program Life	2005–Ongoing

### Summary 2006

Participation.....	40 projects
Total Utility Costs.....	\$374,008
Funding Sources	
Idaho Rider.....	\$356,218
Oregon Rider....	\$16,950
BPA .....	\$0
IPC .....	\$840
Savings in kWh.....	704,541
Savings in kW.....	338 (summer peak)

## Description

The Building Efficiency program is designed for commercial customers involved in the construction of new buildings or significant construction projects. This program enables customers to apply energy-efficient design features and technologies to their projects. The program was launched in Idaho in the spring of 2005 and expanded to Oregon in January 2006.

The Building Efficiency program offers a menu of measures and incentives for lighting- and cooling-efficiency options. The program incentives also include funding for custom projects, as well as additional incentives for commissioning that ensures the systems perform as designed.

Program marketing enlists architects, engineers, and other local design professionals to promote the program. Program-related communications also reach out to building developers, building officials, and IPC field personnel.

Through this program, IPC is a primary sponsor of the Boise Integrated Design Lab, which

provides technical assistance and training seminars to local architects and designers. Much of this activity is coordinated and supported through NEEA's BetterBricks<sup>®</sup> program.

## Results

Program marketing and education activities that began in 2005 continued and expanded in 2006. By the end of 2006, IPC e-mailed program updates to over 700 customers and design professionals on a regular basis.

The expansion of this program into Oregon resulted in the first Oregon project, completed in September 2006. Also in 2006, IPC developed a process to expand customer contact through IPC's Customer Service Center to share program information with customers engaging in new or significant electrical projects.

## Participation

Similar to 2005, there were 38 projects that submitted expressions of interest for future projects in 2006. During 2006, 40 projects were completed and received incentives, which was significantly more than the 12 projects completed in 2005.

## Energy Impact

The Building Efficiency program exceeded 2004 Energy Plan targets for both energy savings and demand reduction in 2006. The annual energy savings increased by 43% over 2005, from 494,239 kWh to 704,541 kWh. The peak demand reduction increased from 162 kW in 2005 to 338 kW in 2006, which represents an increase of 109%.

## Plan for 2007

IPC plans significant modifications and improvements to the program in 2007. With input from a stakeholder group, the EEAG, and IPC field personnel, the program measures,

incentives, and eligibility requirements will be changed for 2007.

In 2007, the program will feature four major initiatives:

- Open-up to more customers—The program will be expanded to include customers taking service under Schedule 19, where it was formerly limited to those served under Schedule 7 and Schedule 9;
- Include more measures—The initial program offering was limited to 10 measures; the revised program will increase to 17. Beyond the additional measures, some of the incentive levels and requirements will also change;
- Incentive payment cap increase—The single project payment cap of \$20,000 will be raised to \$100,000 in 2007;
- Require a preliminary application—Preliminary applications will be required for all future applicants.

Commercial Sector  
Energy Efficiency Program

## Oregon Commercial Audits

### Program Overview

Target Customers.... Oregon commercial customers  
Program Life ..... 1983–Ongoing

### Summary 2006

Participation..... 6 audits  
Total Utility Costs..... \$0  
Funding Sources  
    Idaho Rider..... \$0  
    Oregon Rider.... \$0  
    BPA ..... \$0  
    IPC ..... \$0  
Savings in kWh..... None  
Savings in kW..... None

### Description

The Oregon Commercial Audit program has been available to all Oregon commercial customers since 1983. The purpose of the program is to identify opportunities for commercial building owners to achieve energy savings. The program offering includes evaluation (energy audit) and educational services.

The primary method for communicating the program benefits and offerings to the target market is achieved through an annual mailing to each customer in the commercial sector.

As was done in 2005, IPC offered the Saving Energy Dollars publication to customers who wanted more information for saving energy and reducing expenses.

The Oregon Energy Efficiency Rider provides funding for this program. The program normally incurs expenses from the production of customer information packets and by the use of third-party contractors to conduct energy audits. In 2006, no expenses were charged to the program (due to the fact that no new

publications were purchased) nor were any contractor audits required.

### Results

In October 2006, IPC completed its annual mailing to all Oregon commercial customers. The letter mailed to these customers notified them of the availability of no-cost energy audits and the availability of the IPC publication *Saving Energy Dollars*. Last fall's mailing resulted in a response from nine customers requesting the *Saving Energy Dollars* publication. Six customers returned requests for energy audits, which were conducted by IPC personnel.

### Energy Impact

As an education-only program, the audit does not develop measurable energy savings. Any subsequent implementation of energy savings measures was outside the scope of the program.

### Plan for 2007

IPC is evaluating the potential for synergy between the Oregon Commercial Audit program and the planned Easy Upgrades program to offer incentives for commercial retrofits in Oregon. Options include adding Easy Upgrades program information into the annual Oregon Commercial Audit program mailing.



Commercial Sector  
Energy Efficiency Program

## Oregon School Efficiency

### Program Overview

Target Customers.... Oregon school buildings  
Program Life ..... 2005–2007

### Summary 2006

Participation..... 6 projects  
Total Utility Costs..... \$24,379  
Funding Sources  
    Idaho Rider..... \$0  
    Oregon Rider.... \$24,379  
    BPA ..... \$0  
    IPC ..... \$0  
Savings in kWh..... 223,368  
Savings in kW..... 76 (non-summer)

### Description

The Oregon School Efficiency program was initiated in late 2005 and realized energy savings in 2006. The program operates in close conjunction with the Oregon Department of Energy (ODOE) in promoting energy-saving upgrades for Oregon public school buildings. The opportunity to partner with ODOE emerged following the 2004 Energy Plan planning process.

This program offering is an effective and efficient vehicle to augment the school building energy improvement projects under the ODOE umbrella through using IPC-provided incentives and potential tax benefits.

Oregon School Efficiency incentive payments for 2006 were based on \$0.10 per annual kWh savings. The Business Energy Tax Credit (BETC) tax benefit pass-through can increase the realized incentive by 25%–30% of a participating school's project cost.

Through ODOE's school efficiency initiative, program infrastructure for marketing and operations were in place prior to IPC's

involvement, which reduced IPC's program costs for energy savings.

### Results

The first project was completed and paid in February 2006. For the year, six projects resulted in savings of 223,368 kWh.

Payments were made at school board meetings, providing a showcase opportunity for ODOE and IPC providing a broad opportunity for the local community to realize the benefits of the program.

### Participation

Five school districts, representing 35% of the total districts in IPC's Oregon service area, committed to participate and four districts have completed their projects.

### Energy Impact

The program provided significant average load reductions primarily through lighting retrofits; however, summer load reduction was less than average due to reduced consumption when schools were not in session.

### Plan for 2007

Plans for 2007 include phasing-out this program and replacing it with a company-wide retrofit program, Easy Upgrades. When that program is introduced to Oregon customers, this special, school-only program will likely be discontinued. Easy Upgrades will be offered through an alternate application process, but will offer similar incentives for potential, future public school energy-saving projects.

## INDUSTRIAL SECTOR OVERVIEW

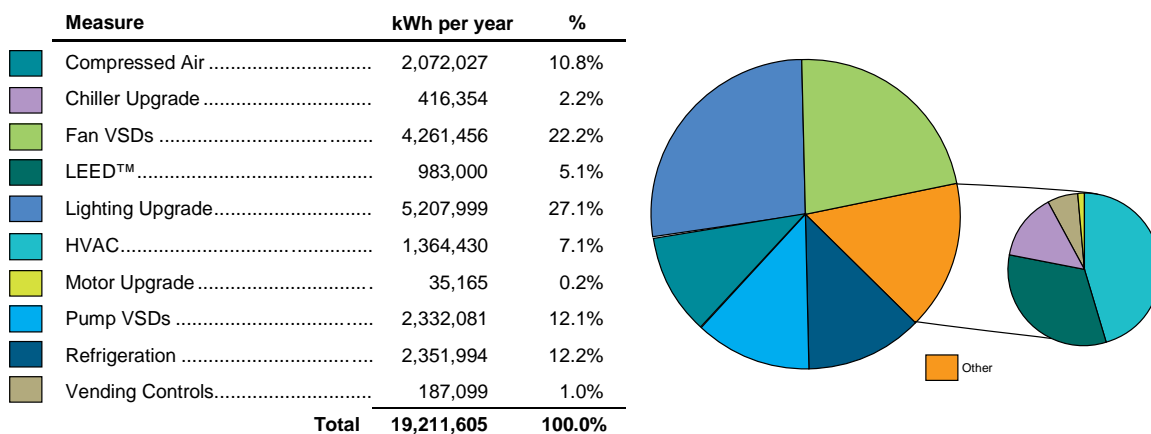
Traditionally, IPC’s Industrial sector is comprised of IPC’s largest individual energy consumers. This sector includes customers served under Schedule 19 and Special Contract Customers. This sector consists of 130 customers and accounts for approximately 25% of IPC’s system energy sales. In order to realize operational efficiencies, the Industrial Energy Efficiency program is offered to all customers with a minimum Basic Load Capacity (BLC) of 500 kW or more. In 2006, approximately 300 Industrial and Commercial customers qualified for this program, including some of the larger commercial customers served under Schedule 9.

## Programs

The Industrial Efficiency Program represented the sole program providing energy efficiency initiatives to customers in 2006. The details of the program are provided in the section that follows.

The energy savings by measure is shown in Figure 7 below.

**Figure 7.** Industrial Efficiency Measures Annual Energy Savings (kWh)



Industrial Sector  
Energy Efficiency Program

## Industrial Efficiency

### Program Overview

Target Customers.... Large industrial and commercial customers  
Program Life ..... 2003–Ongoing

### Summary 2006

Participation..... 40 projects  
Total Utility Costs..... \$1,625,216  
Funding Sources  
Idaho Rider..... \$1,578,975  
Oregon Rider.... \$19,023  
BPA ..... \$0  
IPC ..... \$27,218  
Savings in kWh..... 19,211,605  
Savings in kW..... 2,193 (average)

The energy auditing, customer training, and education services are key components in facilitating customer implementation of energy efficiency projects at their facilities.

Operationally, interested customers submit to IPC an application that identifies potential projects applicable to their facilities. The application must provide sufficient information to IPC to establish a basis for viable conservation projects. Project implementation begins following finalizing the application with terms and conditions of each party's obligations. When possible, IPC conducts on-site power monitoring and data collection to verify information from the application process and ensure demand reduction and energy savings are obtainable and within program guidelines. Large, complex projects may take as long as two years to complete due to complexity.

## Description

The Industrial Efficiency program was selected for implementation during the 2004 Energy Plan process. The program is offered to approximately 300 large commercial and industrial customers of IPC in both Idaho and Oregon who have a BLC of 500 kW or more.

The program targets the acquisition of peak demand reduction and energy savings through the implementation of energy efficiency projects at customer sites.

Operationally, the program provides the following:

- Training and basic education on energy efficiency;
- Energy auditing services for project identification and evaluation;
- Financial incentives for project implementation.

## Results

The Industrial Efficiency program increased energy savings in 2006 by 60% over the prior year, from 12,017 MWh to 19,212 MWh. This program experienced a 67% increase in completed projects and a 150% increase in approved incentive applications, which demonstrates that interest in this program continues to grow.

Stakeholder meetings were held with industrial customers, EEAG, IPUC, and IPC representatives in early 2006 to review the program. Recommendations for program changes developed from these meetings included the expansion of the auditing services aspect of the program to include one detailed energy audit per customer site annually. Previously, one detailed energy audit was allowed every three years per customer site.

In expanding the program's reach in 2006, IPC also increased focus on working with the Industrial Efficiency Alliance (IEA). Funded by NEEA, the goal of the IEA focuses on energy management in the food-processing sector using

a top-down approach. IEA works with the upper level management of organizations to develop a corporate energy management policy. In 2006, three companies in IPC's service area adopted the IEA energy management policy.

## Participation

IPC reviewed and approved a total of 60 applications for incentive projects in 2006. Of these 60 projects, a total of 40 projects were completed with 25 companies at 29 separate locations in Idaho. One Oregon project was approved in 2006 but not completed by year-end.

IPC also increased activity in energy auditing and education in 2006. Over 34 walk-through energy audits were performed by IPC personnel during the year. In addition, a total of 12 scoping studies were performed by independent energy service companies. Customer training and education was another factor in the overwhelming success of the program in 2006. IPC sponsored a total of seven workshops in conjunction with the IEA, Washington State University, the U.S. DOE, and the Idaho Department of Water Resources, Idaho Energy Division (IED). Approximately 200 customers participated in these workshops.

One of the workshops consisted of a new approach to training called a "cluster." The cluster training focused on compressed air systems. The class was kept small and was attended by at least two people from five different companies. The first day of the workshop consisted of the Compressed Air Challenge Level 1 workshop developed by the DOE. The second day consisted of team mentoring by compressed air experts to help each company develop specific action plans for their facilities. Periodic follow-ups and ongoing support are all part of the cluster approach to training.

## Energy Impact

The Industrial Efficiency program target was set at 8,400 MWh for 2006. Actual savings achieved were 19,212 MWh, exceeding the target by over 128%.

## Plan for 2007

For 2007, the program eligibility will be expanded to include all Schedule 9, Schedule 19, and Special Contract customers regardless of energy usage. However, the 2007 program will require a minimum energy savings level per project in order to maintain the program's cost-effectiveness. This expanded customer group is comprised of approximately 924 Oregon customers and 21,761 Idaho customers. The target for the 2007 Energy Plan is 15,714 MWh.

In 2007, the program offerings will expand to include the same options as the new commercial retrofit program, Easy Upgrades (to be introduced in early 2007), opening up additional opportunities for the participants in the Industrial Efficiency program.

The Easy Upgrades program will target less-complex projects that do not require the detailed engineering review and analysis.

Future plans also include the development of enhanced program design and communication materials to coordinate commercial and industrial program implementation, promotion, and education.

The expansion of eligible customers and program offerings in conjunction with the anticipated levels of participation rates and interest in the program will result in significant future growth in activity and energy savings attributable to the Industrial Efficiency program.



## IRRIGATION SECTOR OVERVIEW

The Irrigation sector is comprised of agricultural irrigation customers representing approximately 6,200 individuals with over 16,600 electrical service locations. Other irrigation users, such as golf courses and parks, are assigned to other sectors and are outside the purview of the DSM Irrigation programs.

The Irrigation sector represents approximately 30% of IPC’s summer peak load and 12% of total system energy sales per year. The load for this sector has not grown significantly in recent years; however, there is a yearly variation in demand due primarily to the impact of weather on irrigation needs.

### Programs

IPC currently offers two programs to the Irrigation sector: Irrigation Peak Rewards, a demand response program designed to decrease peak demand, and the Irrigation Efficiency Rewards, an energy efficiency program designed to encourage replacement or improvement of inefficient systems and components.

### Results

The Irrigation Peak Rewards program provided significant peak reduction during the summer of

2006 with an average load reduction of 23.9 MW and a peak reduction of 31.8 MW. The peak reduction reported by the program in 2006 was less than in 2005 due to changes in how the participant load reduction was distributed throughout the week.

Irrigation Efficiency Rewards participation grew significantly from 2005 to 2006. The program redesign, which began in 2006, offered increased incentive levels and the addition of a menu option program that offered incentives for a wide range of upgradeable components. The total energy savings increased from just over 1,000 MWh in 2005 to 16,986 MWh in 2006, while participation increased from 38 customers to over 550.

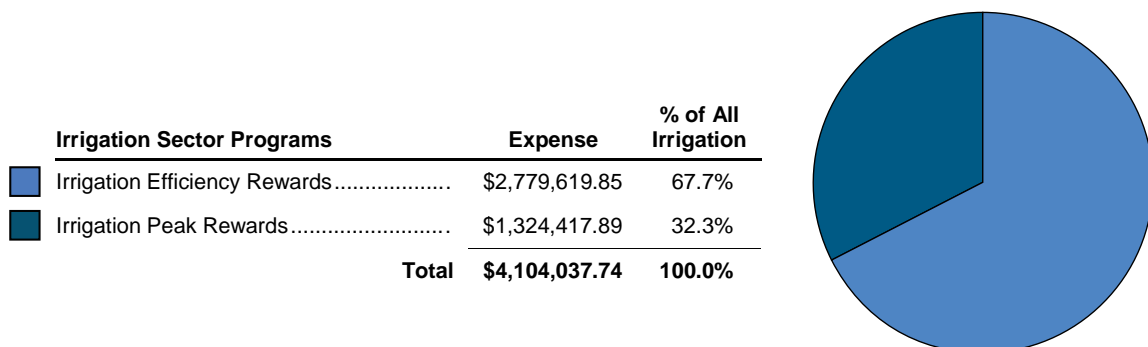
Figure 8 provides a comparative perspective of the 2006 irrigation direct program expense.

Tables 13 and 14 present the energy savings and demand reduction attributable to each 2006 irrigation program activity.

**Table 13.** Irrigation Sector Energy Savings (kWh)

	kWh
Irrigation Efficiency Rewards.....	16,986,008
Irrigation Peak Rewards.....	NA
<b>Total</b>	<b>16,986,008</b>

**Figure 8.** 2006 Irrigation Sector Direct Program Expense



**Table 14.** Irrigation Sector Demand Reduction (kW)

	akW	Summer Peak kW
Irrigation Efficiency Rewards.....	3,324	5,100
Irrigation Peak Rewards.....	–	31,836
<b>Total</b>	<b>3,324</b>	<b>36,936</b>

## Plans

In 2007, IPC plans to make some changes in the design of both the Irrigation Peak Rewards and the Irrigation Efficiency Rewards programs, which are detailed in the Plan for 2007 sections of each program's activity summary.



Irrigation Sector  
Demand Response Program

## Irrigation Peak Rewards

### Program Overview

Target Customers.... Irrigation customers with 100+ hp irrigation systems  
Program Life ..... 2004–Ongoing

### Summary 2006

Participation..... 906 service points  
Total Utility Costs..... \$1,324,418  
Funding Sources  
Idaho Rider..... \$1,221,499  
Oregon Rider.... \$53,134  
BPA ..... \$0  
IPC ..... \$49,785  
Savings in kWh..... NA  
Savings in kW..... 31,836 (summer peak)

## Description

The Irrigation Peak Rewards program was initially implemented as a pilot program in 2004. Full implementation followed in 2005 as a result of the 2004 Energy Plan planning process. The program was developed after being selected through the 2004 Energy Plan process. In 2006, the program also became available to IPC's Oregon customers.

The voluntary program targeted agricultural irrigation customers with pumps of 100 horsepower (hp) or greater with an objective of reducing peak electrical load during summer weekday afternoons. The program utilizes pre-programmed, electronic, time-activated switches to turn off pumps of participating irrigation customers during predetermined intervals in exchange for a financial incentive.

Voluntary participants selected one of three weekly interruption options for the months of June, July, and August. A monthly demand credit was associated with each of the one-, two-, or three-day interruption options and paid on the basis of the participating customer's

monthly billing demand. Electronic timers are programmed to turn off irrigation pumps during the pre-programmed time periods associated with the selected option. The following interruption options and associated demand credit incentives were available to customers in 2006:

- One weekday per week, 4 p.m.–8 p.m., \$2.01 per kW demand credit;
- Two weekdays per week, 4 p.m.–8 p.m., \$2.52 per kW demand credit;
- Three weekdays per week, 4 p.m.–8 p.m., \$2.76 per kW demand credit.

The incentive amount credited to customers' monthly bills was calculated separately for each metered service point.

## Results

IPC completed its second successful year of full program implementation following the pilot program in 2004, including offering this program in the Oregon portion of IPC's service area. The Irrigation Peak Rewards program achieved a peak demand reduction of 31,836 kW in 2006.

## Participation

Participation in the program during 2006 remained largely unchanged from the prior year. Participation rates from a service point perspective (a customer may have more than one metered service point participating in the program) show the program achieved 23.3% participation (906 service points out of 3,878 eligible service points). For 2006, 893 participating service points were located in Idaho, and 13 were in Oregon.

Based on number of customers rather than number of service points, 229 customers, or

20.2% of the 1,131 eligible customers, chose to participate.

increase the peak load reduction during summer weekdays by approximately 3.9 MW.

### **Demand Impact**

Each summer, the program has produced substantial and measurable impacts on peak demand. Over the course of the 2006 summer, the program produced an average load reduction of 23.9 MW, with an average of 27 MW load reduction in the month of July. The maximum load reduction occurred during the second half of June, when an estimated 31.8 MW reduction was achieved representing 106% of the 2004 Energy Plan target of 30 MW of peak savings. In 2005, IPC chose to shape the load reduction to be greater on Tuesdays, Wednesdays, and Thursdays than on Mondays and Fridays. In 2006, IPC changed the distribution of the load reduction to be equal over all five weekdays, reducing the absolute peak of the program relative to 2005. This change in the peak reduction distribution was done in response to IPC research, indicating that, although statistically the system peak is less likely to occur on Mondays and Fridays, the fact that it can happen on any weekday justifies an even distribution in scheduling and subsequent even load reduction for planning purposes.

### ***Plan for 2007***

In cooperation with the Idaho Irrigation Pumpers Association and IPUC staff, IPC redesigned the program in the fall of 2006 with the primary objective of increasing participation, and subsequently, peak load reduction. IPC received approval from both the IPUC and OPUC to implement the proposed changes to the program in 2007.

The changes to the Irrigation Peak Rewards program for 2007 include increasing the incentive amounts and decreasing the minimum hp requirement from 100 hp to 75 hp. In combination, these changes are expected to

Irrigation Sector  
Energy Efficiency Program

## Irrigation Efficiency Rewards

Program Overview	
Target Customers....	Agricultural irrigation systems
Program Life .....	2003–Ongoing
Summary 2006	
Participation.....	1,235 Projects
Total Utility Costs.....	\$2,779,620
Funding Sources	
Idaho Rider.....	\$2,691,193
Oregon Rider....	\$51,848
BPA .....	\$0
IPC .....	\$36,579
Savings in kWh.....	16,986,008
Savings in kW.....	5,100 (summer peak)

### Description

The Irrigation Efficiency Rewards program was initially implemented as a pilot program in 2003. Full implementation followed in 2005 as a result of the 2004 Energy Plan planning process. The program is designed to improve the energy efficiency of customers’ irrigation systems by providing a broad range of financial incentives and educational programs designed to serve the diverse needs of IPC’s irrigation customers. In 2006, IPC offered the program in both the Idaho and Oregon service areas.

The array of available incentive categories covers minor and major system improvements. In order to meet the needs of such a wide range of systems, two separate options were developed. For major changes on new or existing systems, the Custom Incentive Option provides for component upgrades and large-scale improvements. For systems where small maintenance upgrades will provide energy savings, the Menu Incentive Option is offered.

Specifics for each of these two incentive alternatives are as follows:

#### Custom Incentive Option

- Available for new or existing irrigation system upgrades;
- For new systems, incentives are the lesser of:
  - \$0.25 per kWh saved; or
  - 10% of total project cost.
- For existing system upgrades, incentives are the lesser of:
  - Greater of \$0.25 per annual kWh saved or \$450 per kW; or
  - 75% of total project cost.

#### Menu Incentive Option

- Based on specific component replacement;
- Paid on predetermined, average energy savings per component.

IPC reviewed and analyzed each proposal for a system or component modification to determine and verify the energy savings. IPC Agricultural Representatives also provided energy audits to customers to evaluate potential program savings.

In addition to incentives, the program provided significant educational and training opportunities for irrigation customers. IPC Agricultural Representatives sponsored, coordinated, and participated in educational workshops for irrigation customers. The workshops provided customers with expert

information and education across the service area.

IPC Agricultural Representatives also engaged agricultural irrigation equipment dealers in training sessions to increase awareness and product knowledge and to promote the program throughout the irrigation equipment distribution channel.

Marketing communication efforts provided awareness and understanding of the program offerings. They included direct mailing, advertisements in agricultural publications, agricultural trade show participation, and educational workshops.

## **Results**

The Irrigation Efficiency Rewards program realized 16,986 MWh of energy savings and 5.1 MW of peak load reduction in 2006 and surpassed the 2004 Energy Plan targets by 227% and 96% respectively.

### **Participation**

In 2006, 1,235 projects were completed with irrigation customers, of which 138 were under the Custom Incentive option, and 1,097 under the Menu Incentive option. Incentive payments to customers under the program options in 2006 totaled \$2,477,598.

### **Energy Impact**

The energy impact of the program is realized from efficiency in irrigation energy use in the summer months during both peak and non-peak periods. Savings for 2006 were 5.1 MW of summer peak savings and 16,986 MWh of energy savings.

### **Plan for 2007**

IPC plans to continue to operate the program in 2007. However, IPC plans to implement a few modifications to the program based on

operational experience, along with input received from EEAG, irrigation customers, and irrigation equipment dealers. All of the modifications are focused within the Menu Option portion of the program and will take effect in 2007.

The program changes will add two new irrigation components to the Menu Option and place additional caps on five of the existing Menu Option items. IPC expects that these changes will help to clarify the details of the program for customers and maintain the program's cost effectiveness into the future.

## MARKET TRANSFORMATION

### Northwest Energy Efficiency Alliance (NEEA)

NEEA is a regional group whose mission is to catalyze the Northwest marketplace to embrace energy-efficient products and services.

IPC accomplishes market transformation in its service area through membership and coordinated activities with NEEA.

#### NEEA Activities

##### Industrial Efficiency Alliance (IEA) Activities in Idaho

The IEA is a multi-year strategic effort designed to improve energy efficiency in two regional industries considered heavy-energy users—the food processing and the pulp and paper industries. The IEA also works with companies that produce equipment and provide services for these industries and with the utilities that serve them.

Participants realize cost savings through the adoption of energy-efficient business practices. The IEA provides expert support, resources, and services to give companies tools and training to make energy efficiency a core business value. In exchange, participants are asked to commit to a Continuous Energy Improvement Program, which has the potential to increase production capacity, improve equipment reliability, and reduce operating costs and energy use by 5% to 20%. This effort is supported by providing technical knowledge for individuals, organizations, and manufacturing companies to collaborate on energy efficiency implementation. IEA members include the BPA, regional utilities, the Energy Trust of Oregon (ETO), ODOE, and the IED. Training activity in 2006 included a total of seven industrial workshops co-sponsored by the IEA, IPC, and

others. This training activity focused on pumps, fans, compressed air, motors, and refrigeration.

##### Commercial Alliance Activities in Idaho

In Idaho, NEEA increased support of the Boise Integrated Design Lab and BetterBricks<sup>®</sup> trainings and workshops, including the sponsorship of the Third Annual BetterBricks<sup>®</sup> Awards. The IPC Building Efficiency program was strategically designed to leverage the BetterBricks<sup>®</sup> and Boise Integrated Design Lab offerings.

##### Residential NEEA Activities in Idaho

NEEA has two primary programs in the residential sector—ENERGY STAR<sup>®</sup> Homes Northwest and Consumer Products. IPC was one of the leading regional partners in the ENERGY STAR<sup>®</sup> Homes Northwest program, providing 439 of 2,335 homes, or 19% of all homes certified in the region in 2006. IPC was also a partner with NEEA in the SWAT program.

##### Other NEEA Activities in Idaho

In 2006, NEEA conducted a new homes construction survey to monitor the building characteristics of new residential buildings in the region. IPC paid for an additional over-sample in the Treasure Valley in order to obtain statistically valid data for energy efficiency features of new homes in this area. Information from both the regional study and the specific Treasure Valley study will be used in 2007 to develop new residential programs and refine existing residential programs, such as ENERGY STAR<sup>®</sup> Homes Northwest.

NEEA continued to provide energy code support to jurisdictions in Idaho in the form of funding for code training and other activities. This funding also supported the efforts of the Idaho Building Code Coalition, which met frequently in 2006 to develop a bipartisan document that will be presented to the Idaho legislature during its 2007 session as it evaluates adopting the 2006 International Energy Code.

Each year NEEA underwrites the Idaho Energy Conference through a contract with the Association of Idaho Cities. NEEA continues to provide general information support to the region by funding the *EnergyIdeas* Clearinghouse<sup>®</sup> and ConWeb<sup>®</sup>.

### **NEEA Funding**

In 2005, IPC began the first year of the 2005–2009 contract and funding agreement with NEEA. Per this agreement, IPC committed to fund \$1,300,000 annually in support of NEEA's implementation of Market Transformation programs in its service area. Of this amount, 75% is funded through the Idaho and Oregon Riders, and 25% is funded by a credit accumulated during the previous contract period.

In 2006, IPC paid \$918,495 to NEEA. The Idaho jurisdictional share of the payments was \$872,570, while \$45,925 was paid for the Oregon jurisdiction. Other expenses associated with NEEA activities, such as administration and travel, are paid by IPC.

Preliminary estimates reported by NEEA indicate that IPC's share of regional market transformation MWh savings for 2006 is 22,337 MWh or 2.5 aMW. IPC 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](http://www.nwalliance.org).



## ENERGY EFFICIENCY ADVISORY GROUP (EEAG)

The EEAG, formed in May 2002, provides input on formulating and implementing energy efficiency and demand reduction programs that are funded by the Rider. The EEAG currently consists of 12 members from across IPC's service area and the Northwest. Members represent a cross-section of customers, including representatives from the residential, industrial, commercial, and irrigation sectors, as well as elderly, low income, and environmental organizations, state agencies, the public utility commissions, and representatives from IPC.

In 2006, the EEAG met three times: on February 2, July 13, and November 16. In the meetings, IPC provided a status of the Rider funding and expenses, provided updates on ongoing programs and projects, requested recommendations on new program proposals, and provided information to the group on DSM issues.

### EEAG Program Recommendations

The following section provides a review of the input provided to IPC by the EEAG regarding major program implementation and operational issues in 2006. Please note that all operational DSM programs have been reviewed by EEAG; however, only substantial changes or modifications associated with EEAG input are presented below.

#### Residential Programs

Residential programs reviewed in 2006 include ENERGY STAR<sup>®</sup> Homes Northwest, A/C Cool Credit, SWAT, and the Residential Energy Efficiency Education Initiative. In addition, the group was given the opportunity to review plans for new residential cooling and lighting programs to be implemented in 2007.

*Comments from the EEAG on these programs included the following:*

- *Group members suggested using existing delivery mechanisms—The homes usually are larger and have out-of-state owners, so cost and peak demand may not be issues;*
- *Stay away from the fixtures and go with bulbs—Fixtures have non-standardized pins and cost about \$50, compared to \$2 for the same cost savings;*
- *Look at a touchier replacement program;*
- *Make purchasing the bulb an easy transaction;*
- *Do not over-target the product as in previous years;*
- *Market only to available supply;*
- *Train and commission installers, homeowners, and employees to ensure systems are operating at expected levels.*

#### Commercial and Industrial Programs

IPC presented updates to the EEAG during the July and November meetings and received input regarding new programs targeted to the commercial and industrial sectors. These 2007 programs will integrate existing commercial and industrial offerings with new programs to provide a full array of incentives and services for energy efficiency and demand reduction at customer facilities. Ideas and feedback centered on modifications that would increase participation and streamline and reduce the complexity of programs. Members provided the following suggestions:



***Incentive caps:***

- *Raise the cap and make it a “soft” cap. Look at other programs to decide what the limit will be.*

***Application procedures:***

- *Penalize (with a fee) if no pre-application is submitted and simplify small project applications (below \$500 or \$1,000);*
- *Encourage completion of pre-applications or “intent to apply” for larger projects. This way, staff can then encourage additional projects. If there is no pre-application form, be careful of what qualifies. The program must be very well marketed and understood.*

The final design for the new Easy Upgrades program incorporated many of the above suggestions, in addition to attributes associated with input from commercial and industrial customers. The Easy Upgrades program will capture an additional portion of the commercial customer population not served under existing programs. The program will offer incentives based on a \$.12 per kWh savings, follow a menu-option format, and be designed to cover common retrofits. The payment cap is \$100,000. Partnerships with dealers will be made to promote and market to customers.

IPC also asked for EEAG input as it considered consolidating the services offered under the existing Oregon School Efficiency program with the Easy Upgrades program. This change was proposed to reduce program overlap; however, the Oregon Business Energy Tax credit will still be available to customers in this class. Modifications to the incentives include an increase from \$20,000 to \$100,000 in the incentive cap. Menu changes due to modified regulation standards and technological growth were also discussed. The new application process will require applicants to submit an expression of interest.

***Group Ideas and Feedback***

- *Members would like the Oregon Business Energy Tax credit to still be available;*
- *Determine if there is a way to include qualified net metering customers in the commercial program.*

Proposed changes to the Industrial Efficiency Program were presented to the group. Under the proposed changes, the upper incentive cap limit would be changed from 50% to 70% of the project cost. As a result of previous EEAG discussions, all other incentive caps would be eliminated. The program availability would be expanded to include all commercial and industrial customers. As a result, the name would be changed to Custom Efficiency and a minimum project size requirement of 20,000 kWh would be instituted.

***Group Ideas and Feedback***

- *Number of projects will increase with no cap;*
- *Business owners will be happier and more willing to participate.*

***Irrigation Programs***

The Irrigation Peak Rewards program has been a successful program with visible megawatt reductions in load observable at the system load data level at 4:00 p.m. on scheduled summer weekdays. In 2006, proposed program changes were considered to improve customer satisfaction and participation. These changes included proposals to allow 75 hp pumps (a change from the existing 100 hp minimum), modification of the number of participation days, and an increase in the participant demand credit allowed. Incentive increases were also proposed as a method for increasing program participation rates. Such a change would also

allow for the elimination of the customer demand charge for the participants in the three-day per week service interruption option. Discussions included moving the interruption time from 3 p.m. to 7 p.m.; however, subsequent input from customers indicated a desire for the period to remain at 4 p.m. to 8 p.m.

The EEAG generally supported IPC's proposed changes and offered the following ideas and comments:

- *Take changes to Idaho and Oregon commissions in late August;*
- *Change wording from "penalty" to "fee."  
It's a cost issue not a punitive issue;*
- *Cautioned that an additional set-up fee may be a barrier to gaining program participants;*
- *Look at all program costs carefully. Do not let incentive values offset actual costs;*
- *Differentiate total costs between utility cost and total resource costs.*



## OTHER PROGRAMS AND ACTIVITIES

### Residential Education Initiative

IPC recognizes the value of general energy efficiency awareness and education in creating customer demand for, and satisfaction with, its programs. Improvements in customer awareness of IPC's residential programs are being achieved through the Residential Education Initiative.

#### *Activities*

During the summer of 2006, research was conducted in order to compile the industry's best energy efficiency practices, initiatives, and activities. In addition to this research, four customer focus group sessions were conducted to query IPC's field and customer service personnel in order to provide insight into customer information needs in the area of energy efficiency.

These efforts provided the basis for the development of an educational plan for residential customers to improve awareness of the methods and benefits of IPC programs in energy efficiency, demand response, and renewable energy resources. The plan developed outlines a program for customer education under six specific goals for meeting educational needs. The Residential Education Initiative will complement and support existing programs in the residential sector. IPC's new residential DSM programs planned for implementation in 2007 will reflect these goals and objectives.

### Distribution Efficiency Initiative

#### *Substation Pilot Demonstration Project*

NEEA is conducting a Pilot Demonstration project with 10 Northwest utilities, both public and private, to determine efficient ways to design and operate distribution feeders. The goal is to achieve energy savings by limiting the primary distribution system voltage drop to 4 Volts (V) from 5V and operate the feeder voltage in the lower bandwidth of the acceptable voltage range, which is 126V to 114V, as measured at the customer's meter. In addition, the use of line-drop compensation settings in the substation voltage regulators will help reduce the average feeder voltage during off-peak periods. The study anticipates that the average system voltage can be reduced by 3–5%, and the expected energy savings associated with this reduced voltage will be from 1–3% on average. The pilot demonstration study will help determine the energy savings on the utility side of the meter and the energy savings for the customers.

The substation pilot demonstration project was initiated at the Boise Substation in July 2006. Three transformers and nine feeders have been operating with a reduced voltage since that time. The customer voltage was reduced by 3.5%, on average, which resulted in an estimated annual energy savings of 4,050 MWh, or 3.5%.

#### *Load Research Project*

NEEA is conducting a residential load survey project to determine the relationship between the utility service voltage and the demand and energy consumed by residential customers. The study will ultimately place a Home Voltage Regulator (HVR) at 500 locations across 10 Northwest utilities, both public and private. The purpose of the HVR is to adjust service-entrance voltage at the residence. A

recording meter will then document the voltage, demand, and energy usage. The HVR will operate at normal utility voltage for 24 hours and then switch to regulate the service-entrance voltage to 115V for the next 24 hours, toggling day-on and day-off for a one-year period. The voltage and energy relationship will then be compared between the control days and the non-control days to determine the change in service-entrance voltage and demand and energy usage at the residence. An in-home survey will be conducted to determine end-use load types, such as electric heating, air conditioning cooling, type of lights, and other energy-related information. A sample design was developed by a private consulting firm to evaluate the sample size and strata and determine if different end-use load types had a unique energy-to-voltage relationship.

Sixty-six HVRs have been operating in southern Idaho since March 2006. These units have been operating without failure during the year. The customer voltage was reduced by 3.9% on average, which resulted in an annual energy savings of 361 kWh per household, or 2.3%.

### **Plan for 2007**

A new pilot will be implemented during the first quarter of 2007 to demonstrate remote end-of-feeder control of the station transformer load tap changer. This demonstration project uses wireless communication between the end-of-feeder and the substation. This technology application will allow better control of the end-of-feeder voltage.

The HVR program will be complete at the end of the first quarter of 2007, and the devices will be removed during the second quarter.

## **Small Project/Education Fund**

The purpose of the Small Project/Education Fund is to provide modest funding for short-term projects and activities that do not fit within other categories of energy efficiency

programs but still provide a defined benefit to furthering DSM targets. In 2006, two projects met these criteria.

### ***Building Design Software***

When the Integrated Design Lab in Boise was planning to offer a special training class on Energy Scheming in June 2006, they submitted an application request for funds to provide free software to 10 attendees (architects and designers) at the class. Total actual cost of this initiative was \$2,120 and the estimated energy savings was 4,000,000 kWh per year, based on each recipient designing an average of one million square feet of commercial space over a software design life of 10 years. It was determined that this funding was very cost effective at an estimated \$.00053 per kWh for IPC. In addition, the software and the associated training will support the goals of the Building Efficiency program for commercial construction.

### ***CFL Education and Distribution***

In February 2006, IPC was presented with an invitation from Fort Hall tribal leaders for IPC to participate in the Fort Hall Reservation's Idaho Energy Fair. IPC's participation was focused on energy-efficient CFL lighting penetration into local areas where retail distribution opportunities were less developed. A total of 480 bulbs and lighting efficiency tip cards were distributed at a direct program cost of \$1,008 with an estimated energy savings of 19,027 kWh.

## APPENDICES

The following financial and performance tables provide a summary of program activity, including program expenses, funding sources, energy savings, and levelized costs for savings.

For this 2006 DSM Annual Report, the Historical Program Performance table is reintroduced following its absence from the 2005 report. The table was excluded in 2005 to allow reporting system conversion to a standardized historical basis: A large part of the alignment was associated with synchronizing historical reporting practices, which included reporting accrued energy savings associated with incentive payments that had yet to be reflected in the expense accounts (i.e., account payable liabilities). In 2005, a decision was made to report energy savings and expenses based on a cash basis. This change ensures that all energy savings are associated and reported with the year in which the expense is recognized and removes the necessity for reversing accruals and restating the energy savings from year-to-year in order to true-up historical reporting.

The accounting method adopted was part of a larger restructuring of the DSM reporting system's architecture that occurred in 2006. The system changes have provided the platform for more productive reporting and analysis, in addition to providing the basis for meeting future demands from the significant growth in program offerings and participation.

Changes to historical reporting are documented in the footnotes to the historical program performance report.

**Appendix 1. Idaho Rider, Oregon Rider, BPA, and NEEA Funding Balances**

<b>Idaho Energy Efficiency Rider</b>	
2006 Beginning Balance .....	\$6,146,840.70
2006 Funding plus Accrued Interest.....	8,632,535.22
Total 2006 Funds	14,779,375.92
2006 Expense .....	(8,844,912.71)
<b>2006 Year-End Balance</b>	<b>\$5,934,463.21</b>
<b>Oregon Energy Efficiency Rider</b>	
2006 Beginning Balance .....	\$214,834.31
2006 Funding plus Accrued Interest.....	414,072.59
Total 2006 Funds	628,906.90
2006 Expense .....	(235,175.71)
<b>2006 Year-End Balance</b>	<b>\$393,731.19</b>
<b>BPA Funding</b>	
Total Funding and Accrued Interest October 2001–December 2005 .....	\$2,265,780.84
2006 Funding plus Accrued Interest.....	643,376.24
Total Funds May 2002–December 2006	2,909,157.08
Total Expense—Inception through December 2005.....	(2,092,114.78)
2006 Expense .....	(817,042.30)
<b>Total BPA Funded Expenses</b> .....	<b>(2,909,157.08)</b>
<b>2006 Year-End Balance*</b>	<b>\$0.00</b>
*Year-end balance reflects a deferred expense of \$20,431.44 realized in January 2007.	
<b>NEEA Payments and Escrow Credit Funds Balance</b>	
2006 IPC Contractual Funding Obligation .....	\$1,300,000.00
2006 Application of Funds	
Cash payments by IPC .....	(918,495.00)
2006 Credit and Interest Funds Applied to Contract Obligation .....	(381,505.00)
Total 2006 Application of Funds.....	(1,300,000.00)
Contractual Obligations Due	0.00
Credit Balance	
Beginning Balance Funds Held by NEEA .....	(1,358,276.00)
2006 Credit and Interest Funds Applied to Contract Obligation .....	381,505.00
<b>2006 Year-End Credit Balance</b>	<b>(\$976,771.00)</b>



**Appendix 2. 2006 DSM Expenses by Funding Source (Dollars)**

Sector/Program	Idaho Rider	Oregon Rider	BPA	IPC	Total Program
<b>Demand Response</b>					
Residential					
A/C Cool Credit.....	1,230,826	–	–	4,650	\$ 1,235,476
Irrigation					
Irrigation Peak Rewards.....	1,221,499	53,134	–	49,785	\$ 1,324,418
<b>Demand Response Total</b>	<b>2,452,325</b>	<b>53,134</b>	<b>–</b>	<b>54,435</b>	<b>\$ 2,559,894</b>
<b>Energy Efficiency</b>					
Residential					
Energy House Calls .....	–	–	336,443	257	\$ 336,701
ENERGY STAR® Homes Northwest.....	461,315	5,322	–	2,972	\$ 469,609
Oregon Residential Weatherization .....	–	–	–	4,126	\$ 4,126
Rebate Advantage .....	–	–	52,673	–	\$ 52,673
Residential Retrofit—Cooling.....	15,647	824	–	974	\$ 17,444
Residential Retrofit—Lighting .....	110,036	1,250	183,738	3,731	\$ 298,754
Weatherization Assistance.....	–	–	79,950	1,375,422	\$ 1,455,373
Commercial					
Commercial Building Efficiency.....	356,218	16,950	–	840	\$ 374,008
Commercial Retrofit .....	30,238	1,581	–	–	\$ 31,819
Oregon Commercial Audit.....	–	–	–	–	\$ 0
Oregon School Efficiency.....	–	24,379	–	–	\$ 24,379
Industrial					
Industrial Efficiency .....	1,578,975	19,023	–	27,218	\$ 1,625,216
Irrigation					
Irrigation Efficiency Rewards .....	2,691,193	51,848	–	36,579	\$ 2,779,620
<b>Energy Efficiency Total</b>	<b>5,243,621</b>	<b>121,176</b>	<b>625,805</b>	<b>1,452,119</b>	<b>\$ 7,469,721</b>
<b>Market Transformation</b>					
NEEA.....	872,570	45,925	–	11,960	\$ 930,455
<b>Market Transformation Total</b>	<b>872,570</b>	<b>45,925</b>	<b>–</b>	<b>11,960</b>	<b>\$ 930,455</b>
<b>Other Programs and Activities</b>					
Residential					
Residential Education Initiative .....	–	–	56,727	–	\$ 56,727
Commercial					
Commercial Education Initiative.....	–	–	4,663	–	\$ 4,663
Other					
Distribution Efficiency Initiative .....	15,778	816	–	7,712	\$ 24,306
Other C&RD / CRC Renewables .....	–	–	124,982	(26)	\$ 124,956
Small Project / Education Funds.....	3,303	156	–	–	\$ 3,459
<b>Other Programs and Activities Total</b>	<b>19,081</b>	<b>972</b>	<b>186,372</b>	<b>7,686</b>	<b>\$ 214,111</b>
<b>Indirect Program Expense</b>					
DSM Analysis and Accounting.....	260,789	13,617	–	60,682	\$ 335,088
EEAG Meetings .....	690	36	–	–	\$ 727
Special Accounting Entries .....	(4,163)	315	(22,134)	–	\$ (25,982)
<b>Indirect Program Expense</b>	<b>257,315</b>	<b>13,968</b>	<b>(22,134)</b>	<b>60,682</b>	<b>\$ 309,685</b>
<b>Totals</b>	<b>\$8,844,913</b>	<b>\$235,176</b>	<b>\$817,042</b>	<b>\$1,586,882</b>	<b>\$11,484,013</b>

## Appendix 3. 2006 DSM Program Activity

Program	Participants (Number) (Units)		Total Costs		Savings		Measure Life (Years)	Nominal Levelized Costs <sup>(a)</sup>	
			Utility <sup>(b)</sup> (dollars)	Resource <sup>(c)</sup> (dollars)	Annual Energy (kWh)	Summer Peak Demand <sup>(d)</sup> (kW)		Utility (\$/kWh)	Total Resource (\$/kWh)
<b>Demand Response</b>									
A/C Cool Credit	5,369	homes	\$1,235,476	\$1,131,439		5,637	10		
Irrigation Peak Rewards	906	service points	\$1,324,418	\$239,977		31,836	10		
<b>Energy Efficiency</b>									
<b>Residential</b>									
Energy House Calls	819	homes	\$336,701	\$336,701	777,244		20	\$0.035	\$0.035
ENERGY STAR <sup>®</sup> Homes Northwest <sup>(1)</sup>	439	homes	\$469,609	\$602,651	912,242	878	25	\$0.038	\$0.049
Oregon Weatherization	0	homes	\$4,126	\$4,126					
Rebate Advantage	102	homes	\$52,673	\$140,289	333,494		45	\$0.010	\$0.027
Residential Retrofit—Cooling			\$17,444	\$17,444					
Residential Retrofit—Lighting	178,514	CFL bulbs	\$298,754	\$539,877	6,302,794		7	\$0.008	\$0.014
WAQC—ID	540	homes	\$1,455,373	\$2,231,086	2,958,024		25	\$0.037	\$0.056
WAQC—OR	0	homes							
<b>Commercial</b>									
Building Efficiency Program <sup>(2)</sup>	40	projects	\$374,008	\$463,770	704,541	338	12	\$0.058	\$0.072
Commercial Retrofit			\$31,819	\$31,819					
Oregon Commercial Audits	6	audits							
Oregon School Efficiency	6	projects	\$24,379	\$89,771	223,368		12	\$0.012	\$0.044
<b>Industrial</b>									
Industrial Efficiency	40	projects	\$1,625,216	\$4,273,885	19,211,605		12	\$0.009	\$0.024
<b>Irrigation</b>									
Irrigation Efficiency Rewards <sup>(3)</sup>	1,235	projects	\$2,779,620	\$8,514,231	16,986,008	5,100	8	\$0.024	\$0.073
<b>Market Transformation</b>									
NEEA <sup>(4)</sup>			\$930,455	\$930,455	22,337,477				
<b>Other Programs and Activities</b>									
<b>Residential</b>									
Residential Education Initiative			\$56,727	\$56,727					
<b>Commercial</b>									
Commercial Education Initiative			\$4,663	\$4,663					
<b>Other</b>									
BPA Other C&RD and CRC			\$124,956	\$124,956					
Distribution Efficiency Initiative			\$24,306	\$24,306					
Small Project/Education Funds <sup>(5)</sup>	480	CFL bulbs	\$3,459	\$3,459	19,027		7	\$0.009	\$0.009
<b>Total Program Direct</b>			<b>\$11,174,181</b>	<b>\$19,761,633</b>	<b>70,765,825</b>	<b>43,790</b>			
<b>Indirect Program Expense</b>			<b>\$309,832</b>						
<b>Total DSM Expense</b>			<b>\$11,484,013</b>						

### Appendix 3. 2006 DSM Program Activity (footnotes)

- (a) Levelized Cost calculated with bussbar energy savings at a discounted rate of 6.933%.
- (b) Total Utility Costs—IPC program direct and support costs.
- (c) Total Resource Costs—Total Utility Costs plus Total Participant Costs net of incentives received.
- (d) Summer Peak Demand is reported where program targeted savings are documented.
- (1) Utility Cost reflects overstated incentive payments on certified homes by \$1,500. The Participant Cost and Energy are adjusted to 439 certified homes.
- (2) Commercial New Building Efficiency Participant Cost is estimated at 24% of Utility Cost.
- (3) Measure Life is weighted based on energy savings of custom options (15 years) and menu options (5 years).
- (4) kWh savings are preliminary estimates from NEEA. Total Resource Costs include only Utility Cost, which understates the actual total.
- (5) Levelized Cost calculations based on energy-associated project cost of \$1,008 (CFL tradeshow distribution) in Idaho only.

## Appendix 4. Historical DSM Expense Performance 2001–2006

Program/Year	Participants <sup>(b)</sup> (Number)	Total Costs		Savings			Measure Life (Years)	Nominal Levelized Costs <sup>(a)</sup>	
		Utility <sup>(c)</sup> (dollars)	Resource <sup>(d)</sup> (dollars)	Annual Energy (kWh)	Average Demand <sup>(e)</sup> (kW)	Peak Demand <sup>(f)</sup> (kW)		Total Utility (\$/kWh)	Total Resource (\$/kWh)
<b>Demand Response</b>									
A/C Cool Credit									
2003	204	\$275,645	\$269,680			159	10		
2004	420	\$287,253	\$274,686			402	10		
2005	2,369	\$754,062	\$717,902			2,748	10		
2006	5,369	\$1,235,476	\$1,131,439			5,637	10		
<b>Total</b>	<b>NA</b>	<b>\$2,552,436</b>	<b>\$2,393,707</b>			<b>NA</b>			
Irrigation Peak Rewards									
2004	58	\$344,714	\$185,006			5,597	10		(1)
2005	894	\$1,468,282	\$479,484			40,323	10		(2)
2006	906	\$1,324,418	\$239,977			31,836	10		(3)
<b>Total</b>	<b>NA</b>	<b>\$3,137,414</b>	<b>\$904,467</b>			<b>NA</b>			
<b>Energy Efficiency</b>									
<b>Residential</b>									
Energy Efficiency Packets									
2001	7,608	\$92,452	\$92,452	405,125	46		7	\$0.037	\$0.037 (4)
2002	2,925	\$755	\$755	155,757	18		7	\$0.001	\$0.001 (5)
<b>Total</b>	<b>10,533</b>	<b>\$93,207</b>	<b>\$93,207</b>	<b>560,882</b>	<b>64</b>		<b>7</b>	<b>\$0.027</b>	<b>\$0.027</b>

(a) Nominal levelized costs are calculated with financial inputs from the 2006 IRP. Previously reported prior-year values may differ due to this factorial input.

(b) Participant totals for Energy Efficiency programs are incremental. Totals for Demand Response programs reflect annual subscribers which may represent the same participant across multiple years.

(c) Total Utility Costs—IPC monetary costs associated with a particular program. Used in Appendix tables and program summaries.

(d) Total Resource Costs reflect the total net resource expenditures from the perspective of IPC and its customers as a whole.

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

(f) Peak Demand is reported for programs that differentiate and measure savings during the summer peak season. Subscription programs, such as AC Cool Credit and Irrigation Peak Rewards, provide non-additive annual savings.

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

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

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

(4) Utility Cost restated from previously reported \$87,175.

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

## Appendix 4. Historical DSM Expense Performance 2001–2006 (continued)

Program/Year	Participants <sup>(b)</sup> (Number)	Total Costs		Savings			Measure Life (Years)	Nominal Levelized Costs <sup>(a)</sup>		
		Utility <sup>(c)</sup> (dollars)	Resource <sup>(d)</sup> (dollars)	Annual Energy (kWh)	Average Demand <sup>(e)</sup> (kW)	Peak Demand <sup>(f)</sup> (kW)		Total Utility (\$/kWh)	Total Resource (\$/kWh)	
<b>Energy Efficiency</b>										
Energy House Calls										
2002	17	\$26,053	\$26,053	25,989	3		20	\$0.082	\$0.082	<sup>(6)</sup>
2003	420	\$167,076	\$167,076	602,723	69		20	\$0.023	\$0.023	<sup>(7)</sup>
2004	1,708	\$725,981	\$725,981	2,349,783	268		20	\$0.025	\$0.025	<sup>(8)</sup>
2005	891	\$375,610	\$375,610	1,775,770	203		20	\$0.017	\$0.017	
2006	819	\$336,701	\$336,701	777,244	89		20	\$0.035	\$0.035	
<b>Total</b>	<b>3,855</b>	<b>\$1,631,421</b>	<b>\$1,631,421</b>	<b>5,531,509</b>	<b>631</b>		<b>20</b>	<b>\$0.024</b>	<b>\$0.024</b>	
ENERGY STAR <sup>®</sup>										
Homes Northwest										
2003		\$13,597	\$13,597							
2004	44	\$140,165	\$335,437	91,432	10	88	25	\$0.114	\$0.273	<sup>(9)</sup>
2005	200	\$253,105	\$315,311	415,600	47	400	25	\$0.045	\$0.056	<sup>(10)</sup>
2006	439	\$469,609	\$602,651	912,242	104	878	25	\$0.038	\$0.049	<sup>(11)</sup>
<b>Total</b>	<b>683</b>	<b>\$876,476</b>	<b>\$1,266,996</b>	<b>1,419,274</b>	<b>162</b>	<b>1,366</b>	<b>25</b>	<b>\$0.046</b>	<b>\$0.066</b>	

<sup>(a)</sup> Nominal levelized costs are calculated with financial inputs from the 2006 IRP. Previously reported prior-year values may differ due to this factoral input.

<sup>(b)</sup> Participant totals for Energy Efficiency programs are incremental. Totals for Demand Response programs reflect annual subscribers which may represent the same participant across multiple years.

<sup>(c)</sup> Total Utility Costs—IPC monetary costs associated with a particular program. Used in Appendix tables and program summaries.

<sup>(d)</sup> Total Resource Costs reflect the total net resource expenditures from the perspective of IPC and its customers as a whole.

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

<sup>(f)</sup> Peak Demand is reported for programs that differentiate and measure savings during the summer peak season. Subscription programs, such as AC Cool Credit and Irrigation Peak Rewards, provide non-additive annual savings.

<sup>(6)</sup> Utility Cost restated from \$26,135 in prior historical reporting to reflect all funding sources.

<sup>(7)</sup> Utility Cost restated from \$183,653 in prior historical reporting to reflect all funding sources.

<sup>(8)</sup> Utility Cost restated from \$725,732 in prior historical reporting to reflect all funding sources.

<sup>(9)</sup> Energy Savings restated to reflect exclusion of line-losses.

<sup>(10)</sup> To align with incentives paid by year-end, revised number of homes reported certified from 203 to 200.

<sup>(11)</sup> Utility Cost and Total Resource Cost are overstated by \$1,500 due to payment errors. Savings and Levelized costs have been adjusted to reflect certified homes only.

## Appendix 4. Historical DSM Expense Performance 2001–2006 (continued)

Program/Year	Participants <sup>(b)</sup> (Number)	Total Costs		Savings			Measure Life (Years)	Nominal Levelized Costs <sup>(a)</sup>		
		Utility <sup>(c)</sup> (dollars)	Resource <sup>(d)</sup> (dollars)	Annual Energy (kWh)	Average Demand <sup>(e)</sup> (kW)	Peak Demand <sup>(f)</sup> (kW)		Total Utility (\$/kWh)	Total Resource (\$/kWh)	
<b>Energy Efficiency</b>										
Oregon Weatherization										
2001	27	\$10,295	\$6,709	7,073	1		25	\$0.079	\$0.071	(12)
2002	24	(\$662)	\$23,971	4,580	1		25	\$0.010	\$0.389	(13)
2003	0	(\$943)								(14)
2004	4	\$1,057	\$1,057							
2005	4	\$612	\$3,608	7,927	1		25	\$0.006	\$0.034	(15)
2006	0	\$4,126	\$4,126							(16)
<b>Total</b>	<b>59</b>	<b>\$14,486</b>	<b>\$39,471</b>	<b>19,580</b>	<b>2</b>		<b>25</b>	<b>\$0.055</b>	<b>\$0.150</b>	(16)
Rebate Advantage										
2003	73	\$27,372	\$79,399	227,434	26		45	\$0.008	\$0.022	(17)
2004	105	\$52,187	\$178,712	332,587	38		45	\$0.010	\$0.034	
2005	98	\$46,173	\$158,462	312,311	36		45	\$0.009	\$0.032	
2006	102	\$52,673	\$140,289	333,494	38		45	\$0.010	\$0.027	
<b>Total</b>	<b>378</b>	<b>\$178,405</b>	<b>\$556,862</b>	<b>1,205,826</b>	<b>138</b>		<b>45</b>	<b>\$0.009</b>	<b>\$0.029</b>	
Residential Retrofit–Cooling										
2006		\$17,444	\$17,444							
<b>Total</b>		<b>\$17,444</b>	<b>\$17,444</b>							

(a) Nominal levelized costs are calculated with financial inputs from the 2006 IRP. Previously reported prior-year values may differ due to this factoral input.

(b) Participant totals for Energy Efficiency programs are incremental. Totals for Demand Response programs reflect annual subscribers which may represent the same participant across multiple years.

(c) Total Utility Costs—IPC monetary costs associated with a particular program. Used in Appendix tables and program summaries.

(d) Total Resource Costs reflect the total net resource expenditures from the perspective of IPC and its customers as a whole.

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

(f) Peak Demand is reported for programs that differentiate and measure savings during the summer peak season. Subscription programs, such as AC Cool Credit and Irrigation Peak Rewards, provide non-additive annual savings.

(12) Utility Cost reports \$2,778 as expense which represents a loan (asset). This amount is excluded from the Levelized Cost calculation.

(13) Utility Cost reports reversal of \$2,778 2001 expense. This amount is excluded in Levelized Cost calculation. In addition, Utility Cost also reports funds subsequently collected from bad loan write-off expense. These funds are excluded from the Levelized Cost calculation.

(14) Utility Cost reflects collected funds on previous bad loan write-offs.

(15) Utility Cost reflects only audit and administration costs. There was no further activity in 2006.

(16) Levelized Cost calculation includes bad loan write-off expense and funds collected from loans previously written-off.

(17) Utility Cost restated from \$37,319 to reflect Total Expense.

## Appendix 4. Historical DSM Expense Performance 2001–2006 (continued)

Program/Year	Participants <sup>(b)</sup> (Number)	Total Costs		Savings			Measure Life (Years)	Nominal Levelized Costs <sup>(a)</sup>		
		Utility <sup>(c)</sup> (dollars)	Resource <sup>(d)</sup> (dollars)	Annual Energy (kWh)	Average Demand <sup>(e)</sup> (kW)	Peak Demand <sup>(f)</sup> (kW)		Total Utility (\$/kWh)	Total Resource (\$/kWh)	
<b>Energy Efficiency</b>										
Residential Retrofit—Lighting										
2002	11,619	\$243,033	\$310,643	3,299,654	377		7	\$0.012	\$0.015	(18)
2003	12,663	\$314,641	\$464,059	3,596,150	411		7	\$0.014	\$0.021	
2005	43,760	\$73,152	\$107,810	1,734,646	198		7	\$0.007	\$0.010	(19)
2006	178,514	\$298,754	\$539,877	6,302,794	719		7	\$0.008	\$0.014	(20)
<b>Total</b>	<b>246,555</b>	<b>\$929,581</b>	<b>\$1,422,389</b>	<b>14,933,244</b>	<b>1,705</b>		<b>7</b>	<b>\$0.010</b>	<b>\$0.015</b>	
Window AC Trade-Up Pilot										
2003	99	\$6,687	\$10,492	14,454	2	12	12	\$0.051	\$0.079	
<b>Total</b>	<b>99</b>	<b>\$6,687</b>	<b>\$10,492</b>	<b>14,454</b>	<b>2</b>	<b>12</b>	<b>12</b>	<b>\$0.051</b>	<b>\$0.079</b>	
<b>Weatherization Assistance for Qualified Customers (WAQC)</b>										
WAQC—BPA Supplemental										
2002	75	\$55,966	\$118,255	311,347	36		25	\$0.013	\$0.028	(21)
2003	57	\$49,895	\$106,915	223,591	26		25	\$0.017	\$0.036	
2004	40	\$69,409	\$105,021	125,919	14		25	\$0.041	\$0.062	
<b>Total</b>	<b>172</b>	<b>\$175,270</b>	<b>\$330,191</b>	<b>660,857</b>	<b>75</b>		<b>25</b>	<b>\$0.020</b>	<b>\$0.037</b>	
WAQC—Idaho										
2001	266	\$331,126	\$692,048							
2002	197	\$235,048	\$492,139							
2003	208	\$228,134	\$483,369							
2004	269	\$498,474	\$859,482	1,271,677	145		25	\$0.029	\$0.050	
2005	570	\$1,402,487	\$1,927,424	3,179,311	363		25	\$0.033	\$0.045	(22)
2006	540	\$1,455,373	\$2,231,086	2,958,024	338		25	\$0.037	\$0.056	
<b>Total</b>	<b>2,050</b>	<b>\$4,150,642</b>	<b>\$6,685,549</b>	<b>7,409,012</b>	<b>846</b>		<b>25</b>	<b>\$0.042</b>	<b>\$0.067</b>	

(a) Nominal levelized costs are calculated with financial inputs from the 2006 IRP. Previously reported prior-year values may differ due to this factoral input.

(b) Participant totals for Energy Efficiency programs are incremental. Totals for Demand Response programs reflect annual subscribers which may represent the same participant across multiple years.

(c) Total Utility Costs—IPC monetary costs associated with a particular program. Used in Appendix tables and program summaries.

(d) Total Resource Costs reflect the total net resource expenditures from the perspective of IPC and its customers as a whole.

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

(f) Peak Demand is reported for programs that differentiate and measure savings during the summer peak season. Subscription programs, such as AC Cool Credit and Irrigation Peak Rewards, provide non-additive annual savings.

(18) Does not include Small Projects 2006 CFL bulb distribution.

(19) Energy Savings adjusted for actual sales of 65,430 bulbs from 35,008. Measure Life revised from 9 years to 7.

(20) Includes 2006 SWAT and 2005 SWAT realized in 2006. Per-bulb kWh based on 39.64 for Rider funded and 32.8 regional factor for BPA funded.

(21) 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.

(22) Total Resource Cost restated in 2005 to include federal funding administered by CAP agencies. 2001–2003 savings not reported due to integration of fuel types.



## Appendix 4. Historical DSM Expense Performance 2001–2006 (continued)

Program/Year	Participants <sup>(b)</sup> (Number)	Total Costs		Savings			Measure Life (Years)	Nominal Levelized Costs <sup>(a)</sup>	
		Utility <sup>(c)</sup> (dollars)	Resource <sup>(d)</sup> (dollars)	Annual Energy (kWh)	Average Demand <sup>(e)</sup> (kW)	Peak Demand <sup>(f)</sup> (kW)		Total Utility (\$/kWh)	Total Resource (\$/kWh)
<b>Energy Efficiency</b>									
WAQC–Oregon									
2001	21	\$23,678	\$44,179	60,412	7		25	\$0.029	\$0.054
2002	31	\$24,773	\$47,221	68,323	8		25	\$0.027	\$0.051
2003	29	\$22,255	\$42,335	102,643	12		25	\$0.016	\$0.031
2004	17	\$13,469	\$25,452	28,436	3		25	\$0.035	\$0.067
2005	28	\$44,348	\$59,443	94,279	11		25	\$0.035	\$0.047
<b>Total</b>	<b>126</b>	<b>\$128,522</b>	<b>\$218,630</b>	<b>354,093</b>	<b>40</b>		<b>25</b>	<b>\$0.027</b>	<b>\$0.046</b>
<b>Commercial</b>									
Air Care Plus Pilot									
2003	4	\$5,764	\$9,061	33,976	4		10	\$0.021	\$0.033
2004		\$344	\$344						
<b>Total</b>	<b>4</b>	<b>\$6,108</b>	<b>\$9,405</b>	<b>33,976</b>	<b>4</b>		<b>10</b>	<b>\$0.022</b>	<b>\$0.034</b>
Building Efficiency Program									
2004		\$28,821	\$28,821						
2005	12	\$194,066	\$233,149	494,239	56	162	12	\$0.043	\$0.052
2006	40	\$374,008	\$463,770	704,541	80	338	12	\$0.058	\$0.072
<b>Total</b>	<b>52</b>	<b>\$596,896</b>	<b>\$725,741</b>	<b>1,198,780</b>	<b>137</b>	<b>338</b>	<b>12</b>	<b>\$0.054</b>	<b>\$0.066</b>
Commercial Retrofit									
2006		\$31,819	\$31,819						
<b>Total</b>		<b>\$31,819</b>	<b>\$31,819</b>						
Oregon Commercial Audits									
2002	24	\$5,200	\$5,200						
2003	21								
2004	7								
2005	7	\$5,450	\$5,450						
2006	6								
<b>Total</b>	<b>65</b>	<b>\$10,650</b>	<b>\$10,650</b>						

(a) Nominal levelized costs are calculated with financial inputs from the 2006 IRP. Previously reported prior-year values may differ due to this factoral input.

(b) Participant totals for Energy Efficiency programs are incremental. Totals for Demand Response programs reflect annual subscribers which may represent the same participant across multiple years.

(c) Total Utility Costs—IPC monetary costs associated with a particular program. Used in Appendix tables and program summaries.

(d) Total Resource Costs reflect the total net resource expenditures from the perspective of IPC and its customers as a whole.

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

(f) Peak Demand is reported for programs that differentiate and measure savings during the summer peak season. Subscription programs, such as AC Cool Credit and Irrigation Peak Rewards, provide non-additive annual savings.

(22) Total Resource Cost restated in 2005 to include federal funding administered by CAP agencies. 2001–2003 savings not reported due to integration of fuel types.

(23) 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 is booked to general customer service. Six customer service audits were completed in 2006.

## Appendix 4. Historical DSM Expense Performance 2001–2006 (continued)

Program/Year	Participants <sup>(b)</sup> (Number)	Total Costs		Savings			Measure Life (Years)	Nominal Levelized Costs <sup>(a)</sup>	
		Utility <sup>(c)</sup> (dollars)	Resource <sup>(d)</sup> (dollars)	Annual Energy (kWh)	Average Demand <sup>(e)</sup> (kW)	Peak Demand <sup>(f)</sup> (kW)		Total Utility (\$/kWh)	Total Resource (\$/kWh)
<b>Energy Efficiency</b>									
Oregon School Efficiency									
2005		\$86	\$86						
2006	6	\$24,379	\$89,771	223,368	25		12	\$0.012	\$0.044
<b>Total</b>	<b>6</b>	<b>\$24,465</b>	<b>\$89,858</b>	<b>223,368</b>	<b>25</b>		<b>12</b>	<b>\$0.012</b>	<b>\$0.044</b>
<b>Industrial</b>									
Industrial Efficiency Program									
2003		\$1,303	\$1,303						
2004	1	\$112,311	\$133,441	211,295	24		12	\$0.058	\$0.069 <sup>(24)</sup>
2005	24	\$1,128,076	\$3,653,152	12,016,678	1,372		12	\$0.010	\$0.033
2006	40	\$1,625,216	\$4,273,885	19,211,605	2,193		12	\$0.009	\$0.024
<b>Total</b>	<b>65</b>	<b>\$2,866,905</b>	<b>\$8,061,781</b>	<b>31,439,578</b>	<b>3,589</b>		<b>12</b>	<b>\$0.010</b>	<b>\$0.028</b>
<b>Irrigation</b>									
Irrigation Efficiency Program									
2003	2	\$41,089	\$54,609	36,792		18	15	\$0.106	\$0.141 <sup>(25)</sup>
2004	33	\$120,808	\$402,978	802,812		449	15	\$0.014	\$0.048 <sup>(26)</sup>
2005	38	\$150,577	\$657,460	1,012,883		401	15	\$0.014	\$0.062
2006	1,235	\$2,779,620	\$8,514,231	16,986,008	3,324	5,100	8	\$0.024	\$0.073 <sup>(27)</sup>
<b>Total</b>	<b>1,308</b>	<b>\$3,092,094</b>	<b>\$9,629,278</b>	<b>18,838,495</b>	<b>3,324</b>	<b>5,969</b>	<b>9</b>	<b>\$0.024</b>	<b>\$0.074</b>

(a) Nominal levelized costs are calculated with financial inputs from the 2006 IRP. Previously reported prior-year values may differ due to this factoral input.

(b) Participant totals for Energy Efficiency programs are incremental. Totals for Demand Response programs reflect annual subscribers which may represent the same participant across multiple years.

(c) Total Utility Costs—IPC monetary costs associated with a particular program. Used in Appendix tables and program summaries.

(d) Total Resource Costs reflect the total net resource expenditures from the perspective of IPC and its customers as a whole.

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

(f) Peak Demand is reported for programs that differentiate and measure savings during the summer peak season. Subscription programs, such as AC Cool Credit and Irrigation Peak Rewards, provide non-additive annual savings.

(24) Originally reported expense and energy included accrued amounts. Restated here to align with accounting records.

(25) Restated from \$11,190.

(26) Originally reported expense and energy included accrued amounts. Restated here to align with accounting records.

(27) Measure Life is weighted life (based on Energy Savings) of custom option (15 years) and menu option (5 years). Average Demand hours based on seven months.

## Appendix 4. Historical DSM Expense Performance 2001–2006 (continued)

Program/Year	Participants <sup>(b)</sup> (Number)	Total Costs		Savings			Measure Life (Years)	Nominal Levelized Costs <sup>(a)</sup>	
		Utility <sup>(c)</sup> (dollars)	Resource <sup>(d)</sup> (dollars)	Annual Energy (kWh)	Average Demand <sup>(e)</sup> (kW)	Peak Demand <sup>(f)</sup> (kW)		Total Utility (\$/kWh)	Total Resource (\$/kWh)
<b>Market Transformation</b>									
NEEA									
	2001	\$1,309,916	\$1,309,916	9,935,851	1,134				
	2002	\$1,286,632	\$1,286,632	13,251,644	1,513				
	2003	\$1,292,748	\$1,292,748	12,050,157	1,376				
	2004	\$1,256,611	\$1,256,611	13,545,896	1,546				
	2005	\$476,891	\$476,891	16,297,235	1,860				(28)
	2006	\$930,455	\$930,455	22,337,477	2,550				(29)
	<b>Total</b>	<b>\$6,553,252</b>	<b>\$6,553,252</b>	<b>87,418,260</b>	<b>9,979</b>				
<b>Other Programs and Activities</b>									
Building Operator Training									
	2003	71	\$48,853	\$48,853	1,825,000	208	5	\$0.006	\$0.006
	2004	26	\$43,969	\$43,969	650,000	74	5	\$0.014	\$0.014
	2005	7	\$1,750	\$4,480	434,167	50	5	\$0.001	\$0.002
	<b>Total</b>	<b>97</b>	<b>\$94,572</b>	<b>\$97,302</b>	<b>2,909,167</b>	<b>332</b>	<b>5</b>	<b>\$0.007</b>	<b>\$0.007</b>
Commercial Education Initiative									
	2005		\$3,497	\$3,497					
	2006		\$4,663	\$4,663					
	<b>Total</b>		<b>\$8,160</b>	<b>\$8,160</b>					
Distribution Efficiency Initiative									
	2005		\$21,552	\$43,969					
	2006		\$24,306	\$24,306					
	<b>Total</b>		<b>\$45,858</b>	<b>\$68,275</b>					

(a) Nominal levelized costs are calculated with financial inputs from the 2006 IRP. Previously reported prior-year values may differ due to this factoral input.

(b) Participant totals for Energy Efficiency programs are incremental. Totals for Demand Response programs reflect annual subscribers which may represent the same participant across multiple years.

(c) Total Utility Costs—IPC monetary costs associated with a particular program. Used in Appendix tables and program summaries.

(d) Total Resource Costs reflect the total net resource expenditures from the perspective of IPC and its customers as a whole.

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

(f) Peak Demand is reported for programs that differentiate and measure savings during the summer peak season. Subscription programs, such as AC Cool Credit and Irrigation Peak Rewards, provide non-additive annual savings.

(28) Energy is restated from 2005 estimate of 20,053,756 kWh.

(29) Energy is estimated.

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

## Appendix 4. Historical DSM Expense Performance 2001–2006 (continued)

Program/Year	Participants <sup>(b)</sup> (Number)	Total Costs		Savings			Measure Life (Years)	Nominal Levelized Costs <sup>(a)</sup>	
		Utility <sup>(c)</sup> (dollars)	Resource <sup>(d)</sup> (dollars)	Annual Energy (kWh)	Average Demand <sup>(e)</sup> (kW)	Peak Demand <sup>(f)</sup> (kW)		Total Utility (\$/kWh)	Total Resource (\$/kWh)
<b>Other Programs and Activities</b>									
Other C&RD and CRC BPA									
2002		\$55,722	\$55,722						
2003		\$67,012	\$67,012						
2004		\$108,191	\$108,191						
2005		\$101,177	\$101,177						
2006		\$124,956	\$124,956						
<b>Total</b>		<b>\$457,059</b>	<b>\$457,059</b>						
Residential Education Initiative									
2005		\$7,498	\$7,498						
2006		\$56,727	\$56,727						
<b>Total</b>		<b>\$64,225</b>	<b>\$64,225</b>						
Small Project/Education Funds									
2003	56	\$5,100	\$5,100						
2004		\$23,449	\$23,449						
2005	2	\$14,896	\$26,756	78,000	9		10	\$0.024	\$0.042
2006	480	\$3,459	\$3,459	19,027	2		7	\$0.009	\$0.009
<b>Total</b>		<b>\$46,904</b>	<b>\$58,764</b>	<b>97,027</b>	<b>11</b>		<b>9</b>	<b>\$0.022</b>	<b>\$0.038</b>
<b>Annual Totals</b>									
<b>2001</b>		<b>\$1,767,467</b>	<b>\$2,145,304</b>	<b>10,408,461</b>	<b>1,188</b>				
<b>2002</b>		<b>\$1,932,520</b>	<b>\$2,366,591</b>	<b>17,117,294</b>	<b>1,954</b>				
<b>2003</b>		<b>\$2,566,229</b>	<b>\$3,115,609</b>	<b>18,712,919</b>	<b>2,132</b>	<b>189</b>			
<b>2004</b>		<b>\$3,827,212</b>	<b>\$4,688,637</b>	<b>19,409,837</b>	<b>2,124</b>	<b>6,536</b>			
<b>2005</b>		<b>\$6,523,349</b>	<b>\$9,358,620</b>	<b>37,853,046</b>	<b>4,205</b>	<b>44,034</b>			
<b>2006</b>		<b>\$11,174,181</b>	<b>\$19,761,633</b>	<b>70,765,825</b>	<b>9,463</b>	<b>43,790</b>			

(a) Nominal levelized costs are calculated with financial inputs from the 2006 IRP. Previously reported prior-year values may differ due to this factoral input.

(b) Participant totals for Energy Efficiency programs are incremental. Totals for Demand Response programs reflect annual subscribers which may represent the same participant across multiple years.

(c) Total Utility Costs—IPC monetary costs associated with a particular program. Used in Appendix tables and program summaries.

(d) Total Resource Costs reflect the total net resource expenditures from the perspective of IPC and its customers as a whole.

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

(f) Peak Demand is reported for programs that differentiate and measure savings during the summer peak season. Subscription programs, such as AC Cool Credit and Irrigation Peak Rewards, provide non-additive annual savings.

(31) Levelized cost calculations based on direct program cost only (\$1,008) associated with special CFL tradeshow distribution.

## Appendix 4. Historical DSM Expense Performance 2001–2006 (continued)

Program/Year	Participants <sup>(b)</sup> (Number)	Total Costs		Savings			Measure Life (Years)	Nominal Levelized Costs <sup>(a)</sup>	
		Utility <sup>(c)</sup> (dollars)	Resource <sup>(d)</sup> (dollars)	Annual Energy (kWh)	Average Demand <sup>(e)</sup> (kW)	Peak Demand <sup>(f)</sup> (kW)		Total Utility (\$/kWh)	Total Resource (\$/kWh)
<b>Total Direct Program</b>		<b>\$27,790,957</b>	<b>\$41,436,394</b>	<b>174,267,382</b>	<b>19,894</b>	<b>45,320</b>			
<b>Indirect Program Expense</b>									
DSM Overhead and Other Indirect									
	2002	\$2,513							(32)
	2003	\$78,526							(32)
	2004	\$148,610							
	2005	\$177,624							
	2006	\$309,832							
	<b>Total</b>	<b>\$717,505</b>							
<b>Total Expense</b>									
	<b>2001</b>	<b>\$1,767,467</b>							
	<b>2002</b>	<b>\$1,935,032</b>							
	<b>2003</b>	<b>\$2,644,755</b>							
	<b>2004</b>	<b>\$3,975,823</b>							
	<b>2005</b>	<b>\$6,700,973</b>							
	<b>2006</b>	<b>\$11,484,013</b>							
<b>Total 2001–2006</b>		<b>\$28,508,062</b>							

<sup>(a)</sup> Nominal levelized costs are calculated with financial inputs from the 2006 IRP. Previously reported prior-year values may differ due to this factoral input.

<sup>(b)</sup> Participant totals for Energy Efficiency programs are incremental. Totals for Demand Response programs reflect annual subscribers which may represent the same participant across multiple years.

<sup>(c)</sup> Total Utility Costs—IPC monetary costs associated with a particular program. Used in Appendix tables and program summaries.

<sup>(d)</sup> Total Resource Costs reflect the total net resource expenditures from the perspective of IPC and its customers as a whole.

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

<sup>(f)</sup> Peak Demand is reported for programs that differentiate and measure savings during the summer peak season. Subscription programs such as AC Cool Credit and Irrigation Peak Rewards provide non-additive annual savings.

<sup>(32)</sup> Analysis and Indirect Expense were not segregated in the accounting for this reporting period.