



RECEIVED

2008 MAR 14 PM 4:39

IDAHO PUBLIC
UTILITIES COMMISSION

BARTON L. KLINE
Senior Attorney

March 14, 2008

IPC-E-03-19

Jean D. Jewell, Secretary
Idaho Public Utilities Commission
472 West Washington Street
P. O. Box 83720
Boise, Idaho 83720-0074

Re: 2007 Demand-Side Management Annual Report

Dear Ms. Jewell:

Enclosed please find eight copies of Idaho Power Company's 2007 Demand-Side Management Annual Report filed in compliance with Order No. 29419. If you have any questions regarding the content of the report, please direct them to Pete Pengilly at 388-2881 or feel free to contact Tim Tatum at 388-5515.

Very truly yours,

Barton L. Kline

BLK:sh
Enclosures

cc: Ric Gale
Maggie Brilz
Theresa Drake
Pete Pengilly
P&RS/Legal Files

RECEIVED

2008 MAR 14 PM 4:40

IDAHO PUBLIC
UTILITIES COMMISSION



Demand-Side Management 2007 Annual Report

IPC-E-03-19



March 14, 2008

TABLE OF CONTENTS

List of Tables	iii
List of Figures	iv
Glossary of Terms	v
Preface	1
Executive Summary	3
DSM Program Portfolio Structure	4
Demand Response Programs	4
Energy Efficiency Programs	5
Market Transformation	5
Other Programs and Activities	5
Program Performance	5
Regulatory Initiatives	7
DSM Expenditures and Funding	7
Future Plans	7
Customer Satisfaction	8
DSM Annual Report Structure	9
Residential Sector Overview	10
Programs	10
Results	10
Residential Sector Programs	12
A/C Cool Credit	12
Energy House Calls	14
ENERGY STAR® Homes Northwest	16
Oregon Residential Weatherization	18
Rebate Advantage	19
ENERGY STAR® Lighting	21
Weatherization Assistance for Qualified Customers	23
Heating and Cooling Efficiency	25
Commercial/Industrial Sector Overview	26
Programs	26
Results	27
Commercial/Industrial Sector Programs	28

Building Efficiency	28
Easy Upgrades	29
2008 Strategies.....	30
Oregon Commercial Audits	31
Custom Efficiency	32
Irrigation Sector Overview	34
Programs	34
Results.....	34
Irrigation Sector Programs.....	35
Irrigation Peak Rewards.....	35
Irrigation Efficiency Rewards.....	37
Market Transformation	39
Northwest Energy Efficiency Alliance (NEEA).....	39
NEEA Activities	39
Industrial Efficiency Alliance (IEA) Activities in Idaho.....	39
Commercial Alliance Activities in Idaho	39
Distribution Efficiency Initiative.....	39
Residential NEEA Activities in Idaho	40
Other NEEA Activities in Idaho.....	40
NEEA Funding.....	40
Energy Efficiency Advisory Group (EEAG).....	42
EEAG Program Recommendations	42
Residential Programs	42
Commercial and Industrial Programs	43
Irrigation Programs	44
Local Energy Efficiency Funds (LEEF)	44
Other Programs and Activities.....	45
Residential Energy Efficiency Education Initiative.....	45
Activities.....	45
Commercial Education Initiative	45
Local Energy Efficiency Funds (LEEF)	45
Regulatory Initiatives.....	47
Fixed-Cost Adjustment Pilot.....	47
Performance-Based DSM Incentive Pilot.....	47

Enhanced Commitment to Energy Efficiency and DSM.....	47
Availability of Efficiency and Load Management Programs	48
Building Code Improvement Activity	48
Pursuit of Appliance Code Standards	49
Expansion of DSM Programs Beyond Peak-Shaving/ Load-Shifting Programs.....	49
Third-Party Verification.....	49
IPC's Internal Energy Efficiency Commitment.....	50
Appendices.....	52
Appendix 1. Idaho Rider, Oregon Rider, BPA, and NEEA Funding Balances.....	53
Appendix 2. 2007 DSM Expenses by Funding Source (Dollars).....	54
Appendix 3. 2007 DSM Program Activity	55
Appendix 4. Historical DSM Expenses and Performance 2001–2007	57

LIST OF TABLES

Table 1. 2007 DSM Programs, Sectors, and Operational Type.....	6
Table 2. 2007 DSM Energy Impact	6
Table 3. 2007 Sector Comparison.....	7
Table 4. 2007 DSM Expenses and Energy Impact	7
Table 5. Residential Sector Direct Expenses and Ranked Energy Savings	11
Table 6. 2007 Residential Sector Demand Reduction (kW).....	11
Table 7. Energy House Calls 2007 Activity and Energy Savings Summary	15
Table 8. Rebate Advantage 2007 Activity and Energy Savings Summary	19
Table 9. ENERGY STAR® Lighting 2007 Program Summary	21
Table 10. Weatherization Assistance 2007 Year-End IPC Expenses	23
Table 11. Weatherization Assistance 2007 Year-End Energy Savings	24
Table 12. Commercial/Industrial Sector Energy Savings (kWh)	27
Table 13. Commercial/Industrial Sector Demand Reduction (kW).....	27
Table 14. 2007 Irrigation Program Summary, Energy Savings (kWh) and Demand Reduction (kW).....	34
Table 15. 2007 IPC DSM Program Targets and Results	51

LIST OF FIGURES

Figure 1. DSM Annual Expense History 2001–2007	3
Figure 2. DSM Annual Energy Savings 2001–2007.....	4
Figure 3. 2007 Direct Program Expense	8
Figure 4. Customer Perception of IPC’s Conservation Efforts	9
Figure 5. 2007 Commercial/Industrial Sector Direct Program Expense.....	26
Figure 6. 2007 Custom Efficiency Measures Annual Energy Savings (kWh).....	33

GLOSSARY OF TERMS

aMW—Average Megawatt

akW—Average Kilowatt

A/C—Air Conditioning

ASHRAE—American Society of Heating, Refrigerating, and Air-Conditioning Engineers

BCA—Building Contractors Association

BEEP—Building Owners and Managers Association's Energy Efficiency Program

BETC—Business Energy Tax Credit

BLC—Basic Load Capacity

BOC—Boise Operations Center

BOMA—Building Owners and Managers Association

BPA—Bonneville Power Administration

BSU—Boise State University

CAC—Central Air Conditioning/Conditioners

CAP—Community Action Partnership

CAPAI—Community Action Partnership Association of Idaho, Inc.

CCOA—Canyon County Organization on Aging and Community Services

CCNO—Community Connection of Northeast Oregon, Inc.

CFL—Compact Fluorescent Lighting

CHQ—Corporate Headquarters (Idaho Power Company)

CRC—Conservation Rate Credit

DOE—U.S. Department of Energy

DSM—Demand-Side Management

DSR—Delivery Service Representatives

EEAG—Energy Efficiency Advisory Group

El-Ada—El-Ada Community Action Partnership

EEBA—Energy and Environmental Building Association

EICAP—Eastern Idaho Community Action Partnership

Energy Plan—Also known as Integrated Resource Plan

ETO—Energy Trust of Oregon

FCA—Fixed-Cost Adjustment

H&CE—Heating and Cooling Efficiency Program

HCSCS—Harney County Senior and Community Services Center

HMCAA—Harney-Malheur Community Action Agency

HVAC—Heating, Ventilation, and Air Conditioning
HVR—Home Voltage Regulator
IEA—Industrial Efficiency Alliance
IECC—International Energy Conservation Code
IESBP—Idaho ENERGY STAR® Builders Partnership
IPC—Idaho Power Company
IPUC—Idaho Public Utilities Commission
IRP—Integrated Resource Plan (or Energy Plan)
kvar—Kilovolt ampere reactive
kW—Kilowatt
kWh—Kilowatt-hour
LED—Light-Emitting Diode
LEED—Leadership in Energy and Environmental Design
LEEF—Local Energy Efficiency Funds
LDL—Lighting Design Lab
MCOA—Malheur Council on Aging
MW—Megawatt
MWh—Megawatt-hour
NEEM—Northwest Energy Efficient Manufactured Housing Program
NEEA—Northwest Energy Efficiency Alliance
NWPC—Northwest Power and Conservation Council
OER—Office of Energy Resources (formerly the Idaho Energy Division)
ODOE—Oregon Department of Energy
OPUC—Public Utility Commission of Oregon
PECI—Portland Energy Conservation, Inc.
PLC—Power Line Carrier
PTCS—Performance Tested Comfort System
RFP—Request for Proposal
RTF—Regional Technical Forum
Rider—Idaho Energy Efficiency Rider and Oregon Energy Efficiency Rider
SCCAP—South Central Community Action Partnership
SEER—Seasonal Energy Efficiency Ratio
SEICAA—Southeastern Idaho Community Action Agency
SWAT—Savings With A Twist

USB—Utility Sounding Board

V—Volt

WAQC—Weatherization Assistance for Qualified Customers

PREFACE

Idaho Power Company's (IPC) Demand-Side Management (DSM) 2007 Annual Report provides a review of the financial and operational performance of IPC's DSM activities and initiatives for the 2007 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.

During 2007, IPC continued to expand the programs that began with the 2004 Integrated Resource Plan (IRP), also known as the Energy Plan. IPC's 2006 Energy Plan included the addition of three new DSM programs and the expansion of one program. In addition to the DSM programs identified in the Energy Plan, IPC has also continued to pursue other customer-focused DSM initiatives, including programs that preceded the 2004 Energy Plan, educational opportunities, and regional market transformation efforts. Also in 2007, as part of new regulatory initiatives, IPC committed to enhance its efforts towards promoting energy efficiency.

IPC's DSM activities throughout 2007 focused primarily on enhanced program participation and energy savings in the current programs, and design and implementation of new programs. IPC also continued to further integrate IPC field and support personnel to better facilitate the building of customer awareness and participation in the programs.

This DSM Annual Report is prepared to report on IPC's DSM activities and finances throughout 2007, 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

Idaho Power Company (IPC) considers energy efficiency to be an important and necessary part of a balanced approach to meeting the growing demand for electricity. Consistent with this view, energy efficiency is one of the cornerstones supporting IPC's resource acquisition strategy. Energy efficiency is recognized by IPC and its customers as providing economic, operational, and environmental benefits. Therefore, the pursuit of all cost-effective demand-side resources is a primary objective for IPC.

In 2007, the energy savings from IPC's DSM activities increased by 29% and the expenditures on DSM-related activities increased by 36%, compared to 2006. This increase in spending included existing programs and the development of new programs that will result in savings in the future. DSM activities throughout 2007 were focused predominantly on increasing program participation, customer education, and the planning and implementation of the new programs. IPC completed its third full year of implementation of programs identified in the 2004 Energy Plan. It was also the second year of

program implementation of the DSM resources identified in the 2006 Energy Plan.

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

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. In addition to the EEAG, IPC solicits further customer input through stakeholder groups in

Figure 1. DSM Annual Expense History 2001–2007

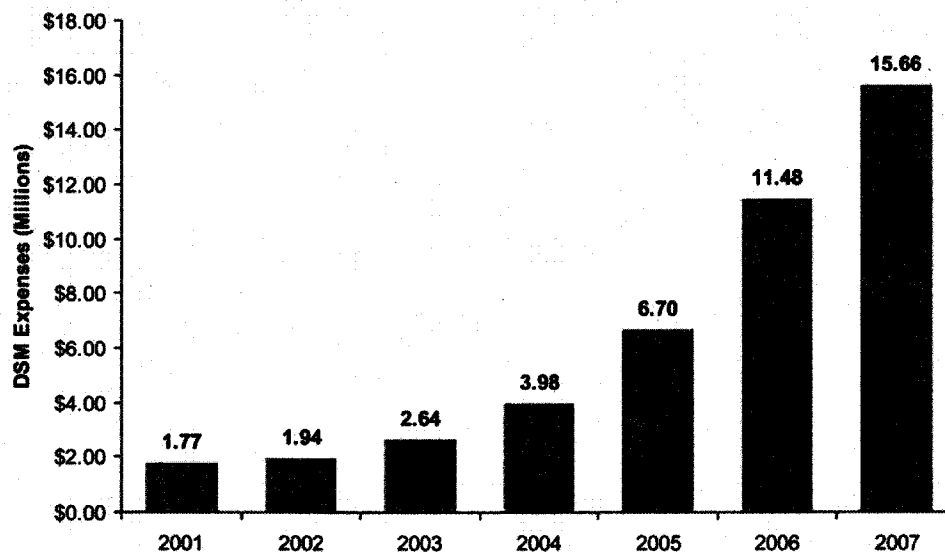
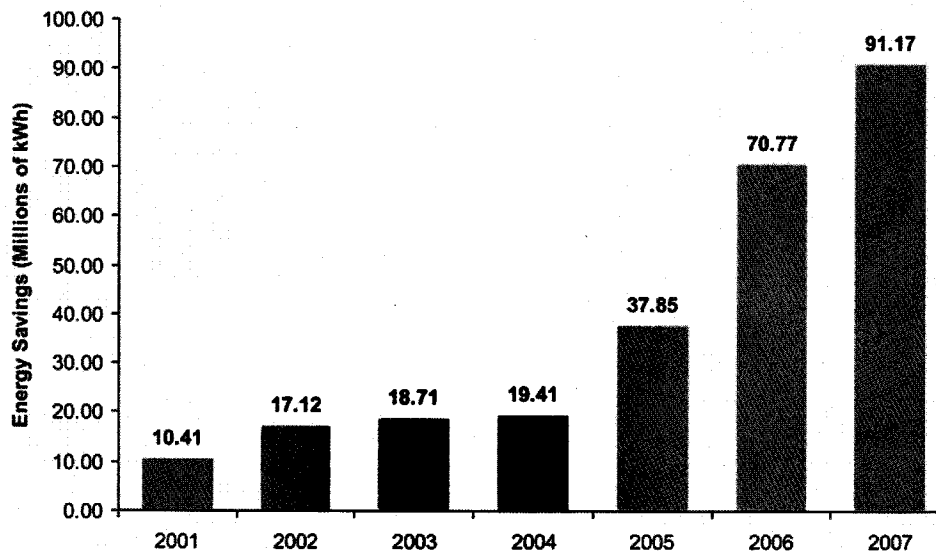


Figure 2. DSM Annual Energy Savings 2001–2007

the residential, irrigation, commercial, and industrial customer sectors. IPC also has enhanced relationships with trade allies, trade organizations, and regional groups committed to increasing the use of energy efficiency programs and measures to reduce electricity load.

During 2007, IPC continued its contractual participation in, and funding of, the Northwest Energy Efficiency Alliance (NEEA). 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.

In March 2007, the Bonneville Power Administration's (BPA) Conservation Rate Credit (CRC) program was suspended. IPC continued to operate the programs formerly funded with CRC funds, including Energy House Calls and Rebate Advantage, utilizing Energy Efficiency Rider (Rider) funding.

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. In 2007, the commercial and industrial energy efficiency programs were made available to customers in either sector, expanding the availability of these programs. Because of this change, the sector is now often referred to as the commercial/industrial sector. Programs are categorized by the operational method through which the 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 participant 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. IPC currently offers two Demand Response programs: one offered to residential customers and one offered to irrigation customers.

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. Typical project measures range from entire building construction to simple light bulb replacement. Savings from these programs are measured in terms of reduced kilowatt-hour (kWh) usage, or megawatt-hour (MWh) usage for larger projects. These programs usually supply energy benefits throughout the year. IPC's Energy Efficiency offerings include programs in residential and commercial new construction, residential and commercial retrofit applications, and irrigation and industrial systems improvement or replacement.

Market Transformation

Market Transformation is a method of achieving energy savings through engaging and influencing large national and regional organizations. These organizations are in a position to impact the design of energy usage in products, services, and methods that affect electrical power consumption. IPC primarily achieves Market Transformation savings through its participation in NEEA.

Market transformation can also be accomplished by appliance or building code modifications or enforcement. In 2007, with IPC support, the State of Idaho adopted the International Energy Conservation Code (IECC) 2006 building codes for both residential and commercial building. Also in 2007, IPC conducted an appliance standards study to analyze the energy consumption impact if Idaho were to adopt the appliance standards currently in effect in Oregon.

Other Programs and Activities

Other Programs and Activities represents a wide range of small projects that are typically research- and development-oriented. This category includes the Local Energy Efficiency Funds (LEEF), formerly called the Small Projects and Education Fund, the Residential Energy Efficiency Education Initiative, and the Commercial Educational Initiative. These programs enable IPC to offer support for projects and educational opportunities not normally covered under existing programs.

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 2007.

Program Performance

DSM programs at IPC continue to grow in participation and energy impact in the form of energy savings and demand reduction. In 2007, participation in the A/C Cool Credit program increased by 155%. The Irrigation Peak Rewards and A/C Cool Credit programs combined resulted in estimated summer peak reduction of 48 MW, which represented a 29% increase over 2006 results. The four Energy Efficiency programs that were identified in the 2004 Energy Plan were the Industrial Efficiency (Custom Efficiency), Building Efficiency, ENERGY STAR[®] Homes Northwest, and Irrigation Efficiency Rewards programs. These programs resulted in total annual savings of 45,540 MWh in 2007, which was a 20% increase over the 2006 energy savings of 37,814 MWh for these programs.

The Energy Efficiency programs that originated as a result of the 2006 Energy Plan were the Heating and Cooling Efficiency, ENERGY STAR[®] Lighting, and the Easy Upgrades programs. These programs resulted in annual savings of 12,393 MWh in 2007.

Table 1. 2007 DSM Programs, Sectors, and Operational Type

Program	Sector	Operational Type	State
A/C Cool Credit	Residential	Demand Response	ID
Building Efficiency Program.....	Commercial/Industrial	Energy Efficiency	ID/OR
Commercial Education Initiative	Commercial	Other Programs and Activities	ID/OR
Custom Efficiency.....	Commercial/Industrial	Energy Efficiency	ID/OR
Easy Upgrades.....	Commercial/Industrial	Energy Efficiency	ID/OR
Energy House Calls.....	Residential	Energy Efficiency	ID/OR
ENERGY STAR® Homes Northwest	Residential	Energy Efficiency	ID/OR
ENERGY STAR® Lighting	Residential	Energy Efficiency	ID/OR
Heating and Cooling Efficiency.....	Residential	Energy Efficiency	ID
Irrigation Efficiency Rewards.....	Irrigation	Energy Efficiency	ID/OR
Irrigation Peak Rewards.....	Irrigation	Demand Response	ID/OR
Local Energy Efficiency Funds	All	Other Programs and Activities	ID
NEEA	All	Market Transformation	ID/OR
Oregon Commercial Audits	Commercial	Energy Efficiency	OR
Oregon Residential Weatherization.....	Residential	Energy Efficiency	OR
Rebate Advantage.....	Residential	Energy Efficiency	ID/OR
Residential Energy Efficiency Education Initiative	Residential	Other Programs and Activities	ID/OR
Weatherization Assistance for Qualified Customers.....	Residential	Energy Efficiency	ID/OR

An expansion of the program formerly known as the Industrial Efficiency program was also identified in the 2006 Energy Plan and, as a result, the program was expanded in 2007 and is now called the Custom Efficiency program.

In addition to the Energy Plan programs offered during 2007, 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. These energy efficiency programs added annual savings of 4,602 MWh in 2007.

Additional significant energy savings continue to be realized through market transformation partnership activities with NEEA. NEEA estimated that 28,601 MWh were saved in IPC's service area during 2007.

Table 2 shows the 2007 annual energy savings, summer peak demand reduction, and average

megawatt (aMW) savings associated with each of the DSM program categories. Unless otherwise noted, all energy savings presented in this report are measured or estimated at the customer's meter, excluding line losses.

Table 2. 2007 DSM Energy Impact

	MWh	Peak MW
Demand Response		48
Energy Efficiency	62,535	9
Market Transformation	28,601	
Other Programs and Activities....	9	
Total 2007	91,145	57

Table 3 provides a comparison of the 2007 contribution of each sector in terms of weather adjusted energy usage and its respective size in number of customers.

Table 3. 2007 Sector Comparison

	Normalized MWh	% of Energy Usage	Average Number of Customers
Residential	5,109,692	36%	397,286
Commercial	3,897,540	28%	61,640
Industrial	3,450,318	24%	126
Irrigation	1,693,785	12%	16,665
Total	14,151,334	100%	475,717

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

Regulatory Initiatives

IPC has aligned itself with the IPUC and the members of the environmental community to work toward creating a financial and regulatory environment supportive of utility DSM resource acquisition. Resulting from this collaborative effort are two financial mechanisms designed to: 1) remove the financial disincentives to utility DSM resource acquisition; and 2) provide a financial incentive to shareowners when DSM programs perform above baseline goals. IPC is optimistic that this effort will lead to a sustained environment supportive of its plans to pursue all cost-effective DSM opportunities while balancing its shareowner's financial objectives.

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

DSM Expenditures and Funding

Funding for DSM programs in 2007 came from several sources. The Idaho Energy Efficiency

Rider and Oregon Energy Efficiency 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 the BPA, which until March 2007 were provided through BPA's CRC program. 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. Total DSM expenses funded from these sources were slightly under \$16 million in 2007.

Table 4 provides a summary of the 2007 expenses and energy savings by each funding category.

Table 4. 2007 DSM Expenses and Energy Impact

	Expenses	MWh Savings
Idaho Rider Funded	\$13,487,460	81,883
Oregon Rider Funded	\$409,188	4,364
BPA Funded	\$200,686	1,560
IPC Funded	\$1,565,043	3,338
Total 2007	\$15,662,378	91,145

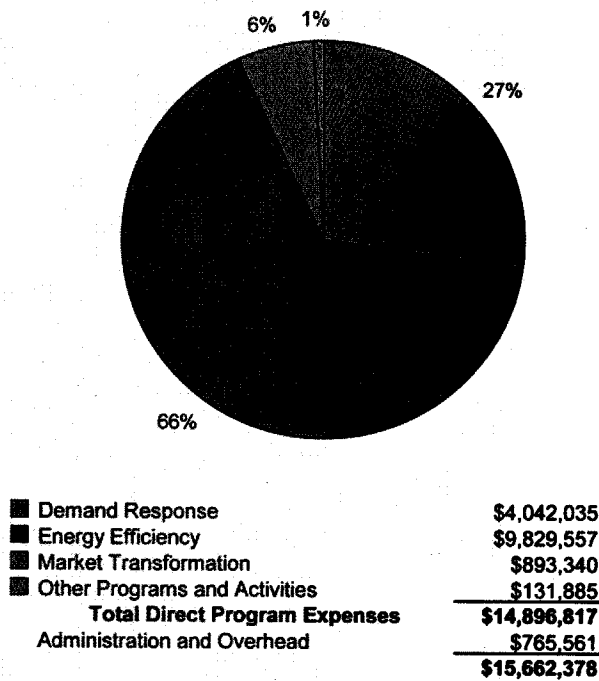
Figure 3 shows the relationships among the 2007 DSM program expenditures by operational category. Direct program expenses include customer incentives and other program-specific costs. Administrative and overhead costs are non-direct program expenses or costs not directly attributable to a specific program.

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 normally updated every two years to reflect changes in supply costs, demand for electricity, and other factors; however, the next full Energy Plan is scheduled to be completed in June of 2009. An update to the 2006 plan will be complete in June of 2008. IPC DSM staff will be part of the collaborative team compiling both the 2006 Energy Plan Update and the 2009 Energy Plan.

Figure 3. 2007 Direct Program Expense



In 2008, IPC plans to continue to increase participation and energy savings from existing programs, continue to implement new energy efficiency programs, research possible new demand response programs, complete a new DSM potential study, and evaluate several existing programs. IPC will participate in the development of the Northwest Power and Conservation Council's (NWPCC) Sixth Power Plan, continue and enhance consumer education on energy efficiency, and complete various research and development projects.

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.

The Easy Upgrade program provides an ongoing, Web-based customer survey for its participants. The results of these surveys indicate a general satisfaction with this program and helps guide marketing efforts.

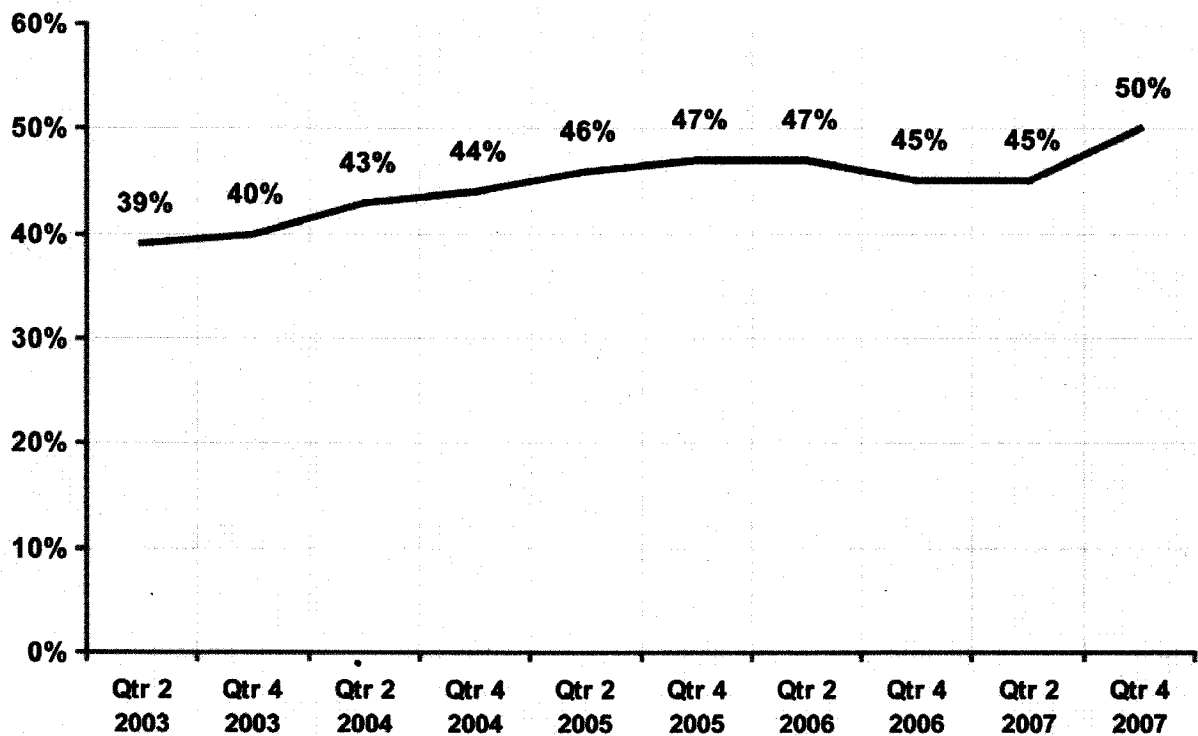
In early 2007, the WAQC program began receiving satisfaction surveys from participating customers. The results of this survey showed that customers thought this program helped them save energy, money, and educated them on energy savings ideas.

An important measure of customer satisfaction is the retention rate of ongoing programs. The Irrigation Peak Rewards program has consistent participation in the number of customers and the number of service points since the program's inception three years ago in 2005. During 2007, the A/C Cool Credit program experienced high customer retention, indicated through the low program attrition rate of less than 1%, due to factors other than customer relocation.

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. Customers' positive perception of IPC's conservation efforts increased from 39% in early 2003 to 50% in late 2007, which is an 11 percentage point increase. This represents a 28% increase in positive customer perception. 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

Figure 4. Customer Perception of IPC's Conservation Efforts



exceeded their needs in regard to energy conservation efforts encouraged by IPC.

including the Fixed-Cost Adjustment and Performance-Based Incentive pilots.

Several programs, including A/C Cool Credit, Energy House Calls, Rebate Advantage, and Building Efficiency, were developing customer surveys late in 2007. These surveys will be implemented in 2008. Survey results will measure customer satisfaction and provide guidance when future modifications to programs are considered.

DSM Annual Report Structure

The structure of the first section of this report is based on customer sectors (categorized by residential, commercial/industrial, and irrigation). The write-up for each sector contains information about the specific programs unique to that sector. Following the sector write-ups are descriptions of IPC's activities in Market Transformation, Other Programs and Activities, and IPC's recent Regulatory Initiatives,

RESIDENTIAL SECTOR OVERVIEW

Residential customers represent IPC's largest customer segment with over 400,000 accounts at the end of 2007, serving approximately one million people. Growth within this segment slowed slightly in 2007 compared to recent years. The number of residential customers in 2007 grew by approximately 2%, adding more than 7,000 customers. The residential sector represents approximately 36% of total system energy sales.

Programs

Programs available to residential customers include one demand response program, seven energy efficiency programs, and an educational initiative program. The demand response offering is the A/C Cool Credit program, which achieves peak demand reduction by cycling customers' central air conditioners. The residential energy efficiency programs include Energy House Calls, ENERGY STAR® Homes Northwest, Oregon Residential Weatherization, Rebate Advantage, ENERGY STAR® Lighting, WAQC, and Heating and Cooling Efficiency.

New in 2007 was the Residential Energy Efficiency Education Initiative, which provided educational outreach to IPC residential customers. Additionally, new programs under development in 2007 were the Heating and Cooling Efficiency program and the Appliance program.

IPC conducted approximately 20 regional events in partnership with local community retailers to educate and influence consumer purchasing decisions relating to ENERGY STAR® Lighting. IPC increased residential program outreach efforts in 2007 through partnerships with Home Depot, Lowes, Wal-Mart, and other retailers. These partnerships were developed to educate customers across IPC's service area about

energy efficient lighting and increase the adoption of energy efficient lighting by residential customers.

Another addition in 2007 was the creation of the www.getpluggedin.com Web site and related radio and TV advertising. These marketing channels were designed to educate customers about various issues facing IPC, and specifically, energy efficiency and the role it plays in planning and managing growth.

Results

In 2007, the residential sector was responsible for a 10% increase in energy savings from 2006 with 11,293,798 kWh savings in 2006 and 12,440,682 kWh in 2007. The peak demand savings from this sector increased by 74% from 6.5 MW in 2006 to 11.4 MW in 2007. Customer participation in the demand response programs increased by 155% for 2007, and compact fluorescent light (CFL) bulb sales increased by 23%.

Table 5 summarizes the residential sector's expenses and energy savings for 2007. Table 6 shows the residential sector demand reduction.

Table 5. Residential Sector Direct Expenses and Ranked Energy Savings

Residential Sector Programs	Expenses		Energy Savings	
	2007 Direct Expenses	% of 2007 Expenses	2007 Energy Savings (kWh)	% of 2007 Energy Savings
ENERGY STAR® Lighting.....	\$557,646	14.5%	7,207,439	57.8%
WAQC—ID	\$1,292,930	39.4%	3,296,019	26.4%
Energy House Calls	\$336,372	10.2%	699,899	5.6%
ENERGY STAR® Homes Northwest.....	\$475,044	17.0%	629,634	5.3%
Rebate Advantage	\$89,269	2.7%	554,018	4.4%
WAQC—OR	\$30,694	0.9%	42,108	<1.0%
Oregon Weatherization.....	\$3,781	0.1%	9,971	<1.0%
Heating and Cooling Efficiency	\$488,211	14.9%	1,595	<1.0%
Appliance Program	\$9,275	0.3%	0	<1.0%
Total	\$3,283,222	100.0%	12,440,682	100.0%

Table 6. 2007 Residential Sector Demand Reduction (kW)

	akW	Summer Peak kW
A/C Cool Credit	—	10,762
Appliance Program.....	—	—
Energy House Calls.....	80	—
ENERGY STAR® Homes Northwest	76	606
ENERGY STAR® Lighting	823	—
Heating and Cooling Efficiency	—	—
Oregon Residential Weatherization	1	—
Rebate Advantage.....	63	—
WAQC—ID	376	—
WAQC—OR	5	—
Total	1,425	11,368

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 2007

Participation	13,692 customers
Total Utility Costs	\$2,426,154
Funding Sources	
Idaho Rider	\$2,421,461
Oregon Rider.....	\$0
BPA.....	\$0
IPC.....	\$4,692
Savings in kWh	N/A
Peak Savings in kW ...	10,762 (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 on and off 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. In 2007, the program was available in Ada County, Canyon County, and the Emmett valley.

Cycling of air conditioning units is achieved through the use of either individual radio-controlled or power line carrier (PLC) switches installed on customer air conditioning equipment. These switches cycle customer air conditioners using a schedule 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.

In 2007, marketing efforts were significantly increased in both the quantity and frequency of mailings. A number of improvements in developing target lists, updating program materials, and tracking campaigns were made over the course of the year. Response rates ranged from less than 1% to over 6%, depending on the time of year and the area. Spring and early summer saw the highest response rates. There were also higher response rates in Eagle and North Boise.

An important activity in 2007 was building relationships with the heating, ventilation, and air conditioning (HVAC) community. IPC staff attended the Idaho State HVAC Association monthly meetings and several meetings with individual HVAC companies. This has been beneficial in creating an educated awareness of the program and minimizing the amount of unauthorized switch disconnects.

Two mitigation projects occurred prior to the start of the cycling season. The first incident that required mitigation involved an installer whose work did not match what was reported. A plan to correct the problem was put in place when it was discovered. Quality checks were completed on all service calls completed by the installer. The vendor responsible increased resources to prevent interference with normal production plans. In total, 2,786 sites were visited.

The second incident involved a radio signal intended for a limited number of switches that was accidentally received by all the switches, causing some to become inactive. The basis of the problem was determined, and a plan was put into place to correct the issue and prevent it from happening in the future. Each switch required a physical visit to reset and download information. This involved servicing over 7,000 switches.

Due to the above issues, many switches were not operable for cycling at the start of June. In both cases, the vendors mitigated the problems.

The unintended benefit of checking nearly all of the radio-controlled switches was that verification of these units was completed in a comprehensive way in a very short period of time.

Results

Participation

Program participants increased from 5,369 in 2006 to 13,692 by the end of 2007. This total included 236 participating customers in the Emmett valley using the PLC system. Installations occurred year-round in 2007, a result of the ongoing, direct-mail campaigns. As expected, enrollments and installations were lower during the non-summer months.

As enrollments declined due to the end of summer and the start of cooler weather, an alternative marketing effort was implemented. A marketing door hanger was placed at approximately ten (10) homes near each new A/C Cool Credit installation, resulting in an increase of 1.6% new sign-ups for the program.

Demand Impact

The estimated demand reduction in July 2007 was 10.8 MW, a substantial increase over 5.6 MW achieved in 2006. Cumulative savings for customers enrolled by year-end are expected to provide an estimated 15 MW. Although cycling appears to shift some usage from cycling hours to non-cycling hours, the net effect on kWh usage is negligible. IPC initiated 19 load-control events between June 20 and August 30, 2007. The majority of control events were four hours in duration at a 50% cycling rate. However, when the temperature was forecasted to be 100 degrees or more, IPC cycled at a 33% rate to minimize customer discomfort and reduce potential participant attrition.

2008 Strategies

The 2008 A/C Cool Credit target is 16,000 new participants. Since the target for 2007 was approximately 12,000 new participants and there were approximately 8,300 new participants last year, this results in the need to carry over the shortage of approximately 5,000 participants into the 2008 sign-up target.

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 2008, additional trained installers will be used to support the increased participation targets.

**Residential Sector
Energy Efficiency Program**

Energy House Calls

Program Overview

Target Customers	Occupants of manufactured homes
Program Life	2002–Ongoing

Summary 2007

Participation	700 homes
Total Utility Costs	\$336,372
Funding Sources	
Idaho Rider	\$251,743
Oregon Rider	\$3,349
BPA	\$80,830
IPC	\$450
Savings in kWh	699,899
Peak Savings in kW	N/A

Description

Originally launched as a pilot in 2002, the Energy House Calls program provides duct sealing and additional efficiency measures to IPC customers living in manufactured homes. Due to the suspension of BPA funding in 2007, this program was funded by the BPA the first half of 2007 and by Rider funds the remainder of the year.

Funds cover the participants’ costs and include the following services and products: duct testing and sealing according to Performance Tested Comfort System (PTCS) specifications endorsed by the BPA, installation of five CFL bulbs, provision of two furnace filters along with replacement instructions, water heater temperature test for proper setting, and distribution of energy efficiency educational materials for manufactured home occupants.

Program management is under contract with Ecos Consulting, a company with experience in managing and supplying duct-sealing service programs. This company coordinates providers performing local weatherization and energy

efficiency services. Quality assurance is conducted by third-party audits.

Results

Significant energy savings were realized during 2007, the fifth full year of operation for this program. The number of CFL bulbs installed in each home increased from three to five, generating even greater energy savings.

Participation

Participation in this program exceeded projections for 2007. IPC continued to focus on recruiting rural customers and those living 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.

In the past, new participants were recruited via IPC bill stuffers, *Customer Connection* newsletters, newspaper advertisements, and field contractors. In 2007, IPC utilized a direct-mail program targeted to customers on IPC’s customer information system whose house-type data indicated a mobile or manufactured home. An analysis was conducted to further segment this population into potential electrically-heated homes based on energy use during winter months. Response rates to this campaign have been significant, far exceeding prior marketing efforts.

Energy Impact

The annual energy savings increased by 13% over the previous year, from 333,494 kWh in 2006 to 699,899 kWh in 2007. The primary source of savings from the program came from increasing the customers’ efficiency of their heating systems through improving air delivery from furnaces through the duct systems. Improved delivery through duct systems also

provided energy savings associated with cooled air where applicable.

The program's furnace filter and water temperature evaluation services educate the occupants on maintaining energy efficient practices in the future. Energy impact of these measures is not quantified or included in the total energy impact of the program.

Table 7 summarizes 2007 program service activity for Idaho and Oregon customers.

Table 7. Energy House Calls 2007 Activity and Energy Savings Summary

	Idaho	Oregon	Total
Activity			
Test Only	72	10	82
Test and Seal	643	24	667
Total Duct Measures	715	34	749
CFL Bulbs.....	3,515	175	3,690
Furnace Filters.....	1,252	63	1,315
Total Other Measures	4,767	238	5,005
Water Temperature (Average).....	128	127	128
Energy Savings kWh.....	674,399	25,500	699,899

2008 Strategies

In mid-2007, IPC assessed the market saturation level of this program to determine whether or not to continue Energy House Calls into 2008. IPC identified a significant number of qualified homes in the service area that can benefit from this program. IPC plans to continue the program for the full year in 2008 and focus greater efforts on urban areas.

Another change for 2008 is an improvement in how information is left with customers receiving an Energy House Call. Instead of numerous loose papers, they will now receive a packet of material. The leave-behind information educates customers on services performed and ways they can conserve energy.

**Residential Sector
Energy Efficiency Program**

**ENERGY STAR® Homes
Northwest**

Program Overview

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

Summary 2007

Participation.....	303 homes
Total Utility Costs.....	\$475,044
Funding Sources	
Idaho Rider.....	\$451,775
Oregon Rider.....	\$12,249
BPA.....	\$0
IPC.....	\$11,020
Savings in kWh.....	629,634
Peak Savings in kW.....	606

Description

The ENERGY STAR® Homes Northwest program is a regionally coordinated initiative supported by a partnership of IPC, NEEA, and the State of Idaho Office of Energy Resources (OER) to improve energy efficient construction practices for single-family homes.

Selected for implementation in the 2004 Energy Plan, the program’s goal is to encourage the purchase of homes that are 20% more energy efficient than homes built to standard Idaho residential code. This program specifically targets the reduction of peak summer demand. This is accomplished by increasing the efficiency of residential building envelope construction practices, air conditioning equipment, and air delivery.

In 2007, the program offered a \$750 incentive per qualifying home to participating builders and a \$1,000 incentive for Parade of Homes units. Program activities included program management services, coordination of local partnerships between IPC, builders, and real

estate service providers, education and training activities for residential new construction industry partners, and consumer marketing communications conveying the benefits of ENERGY STAR® Homes.

Results

In 2007, the number of active ENERGY STAR® builders increased from 119 to 132. However, as a result of the housing downturn in the Treasure Valley, the number of certified ENERGY STAR® Homes in 2007 was 303, down from 439 homes in 2006.

IPC was instrumental in the formation of the Idaho ENERGY STAR® Builders Partnership (IESBP), comprised of builders committed to building exclusively 100% ENERGY STAR® homes. In 2007, IPC co-sponsored a cooperative marketing campaign with IESBP and Northwest ENERGY STAR®. This campaign consisted of print advertising, radio, and a 100% ENERGY STAR® tour of homes.

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 1,414,166 kWh or 681 homes for 2007. Nearly 90% of the ENERGY STAR® Homes completed were built in the Treasure Valley. The program’s estimated market share in 2007 was approximately 5% of the total single-family housing starts in IPC’s service area, which is a slight increase over 2006.

Energy Impact

Annual energy savings in 2007 were 629,634 kWh as compared to 912,242 kWh savings in 2006. The demand reduction in 2007 was 606 kW, and in 2006 it was 878 kW. This decrease in both energy and demand savings can be contributed to the downturn in the housing market.

2008 Strategies

In 2008, the incentive for builders will change. The 2006 International Energy Conservation Code (IECC), which the State of Idaho has adopted as its standard building code, took effect January 1, 2008. This new code meets ENERGY STAR[®] Homes Northwest program standards in several key areas, which decreases the incremental energy savings of each ENERGY STAR[®] Home. As a direct result of the upgrade in Idaho code and the resulting reduction of energy savings, IPC has reduced the incentive to \$400 in 2008, down from the \$750 incentive previously offered. Incentives for Parade of Homes units remain unchanged.

Based on current market conditions, IPC's target for 2008 is to complete 380 certified ENERGY STAR[®] Northwest Homes. In order to achieve this target IPC plans to increase awareness of the program, especially outside the Treasure Valley. IPC will continue to provide realtor trainings, support Parade of Homes events, support Building Contractors Association (BCA) and realtor associations, improve distribution of marketing materials, and continue to support the IESBP group and their activities.

**Residential Sector
Energy Efficiency Program**

**Oregon Residential
Weatherization**

Program Overview

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

Summary 2007

Responses.....35
Participation.....22
Audit Implementation.....1
Total Utility Costs.....\$3,781
Funding Sources
Idaho Rider.....\$0
Oregon Rider.....\$0
BPA.....\$0
IPC.....\$3,781
Savings in kWh.....9,971
Peak Savings in kW.....N/A

Five customer responses were directed to Cascade Natural Gas, and eight follow-up calls to customers had no response.

Energy Impact

One of the 2007 audit participants chose to implement energy-saving measures during the year. This customer requested a loan for \$1,808 to pay for ceiling and floor insulation used in the home. Annual energy savings from this program equaled 9,971 kWh.

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 2007, a total of 35 Oregon customers responded to an informational brochure about energy audits and home weatherization financing in 2007. Each of the 35 customers returned a card from the brochure indicating they were interested in a home energy audit, weatherization loan, or cash payment. Twenty-two audits and responses to customer inquiries to the program were completed.

**Residential Sector
Energy Efficiency Program**

Rebate Advantage

Program Overview	
Target Customers.....	Residential buyers of new manufactured homes
Program Life.....	2003–Ongoing
Summary 2007	
Participation.....	123 homes
Total Utility Costs.....	\$89,269
Funding Sources	
Idaho Rider.....	\$58,854
Oregon Rider.....	\$4,609
BPA.....	\$25,073
IPC.....	\$733
Savings in kWh.....	554,018
Peak Savings in kW.....	N/A

Description

The Rebate Advantage program encourages manufactured home buyers to purchase energy efficient Super Good Cents[®] and later ENERGY STAR[®] manufactured homes. Effective October 1, 2007, IPC began providing incentives only on ENERGY STAR[®]-certified manufactured homes.

Rebate Advantage promotes and educates buyers and retailers of manufactured homes about the benefits of owning energy efficient models, and offers financial incentives. Customers who purchase an ENERGY STAR[®] home and site it in IPC’s service area are eligible for a \$500 incentive. In addition, salespersons receive a \$100 incentive for each qualified home sold.

Quality control and energy efficiency specifications for qualified homes are established by the Northwest Energy Efficient Manufactured Housing (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 ENERGY STAR[®] homes.

The license to use the Super Good Cents[®] 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[®] standards. Subsequent to this decision, BPA and IPC decided to also accept the following homes for credit until September 30, 2007: manufactured homes certified by NEEM as Super Good Cents[®], and manufactured homes sold as Super Good Cents[®] homes prior to October 1, 2006 that subsequently receive the NEEM-certified designation.

Results

Participation

In 2007, there were 123 homes sold under this program, compared to 102 homes in 2006. The geographic reach of this program, as seen in Table 8, shows 19% of the total homes participating were in IPC’s Oregon service area. Approximately one-third of all manufactured home dealers with sales in IPC’s service area are participating in the program.

Table 8. Rebate Advantage 2007 Activity and Energy Savings Summary

	Idaho	Oregon	Total
Activity			
Homes.....	99	24	123
Towns with Homes Sited.....	48	9	57
Counties with Homes Sited.....	21	3	24
Salespeople ⁽¹⁾	30	13	N/A
Dealers ⁽¹⁾	19	9	N/A
Manufacturers ⁽¹⁾	12	7	N/A
Energy Savings kWh.....	465,882	88,196	554,018

⁽¹⁾ Some sales groups sell in both Idaho and Oregon.

Energy Impact

The annual energy savings increased by 66% over the previous year, from 333,494 kWh in 2006 to 554,018 kWh in 2007. Savings from 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.

2008 Strategies

The 2008 target for this program is 150 certified homes. To accomplish this target, IPC will increase outreach to manufactured home dealers. A new brochure is being developed to assist manufactured home dealers in promoting ENERGY STAR[®] manufactured homes and IPC's Rebate Advantage program to their customers.

**Residential Sector
Energy Efficiency Program**

ENERGY STAR® Lighting

Program Overview

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

Summary 2007

Participation 219,739 CFL bulbs
 Total Utility Costs \$557,646
Funding Sources
 Idaho Rider \$519,818
 Oregon Rider \$11,787
 BPA \$37,131
 IPC \$10,446
 Savings in kWh 7,207,439
 Peak Savings in kW N/A

Description

The ENERGY STAR® Lighting program is designed to achieve residential energy savings through the replacement of less efficient lighting with more efficient technology. The average older home has 38 light bulbs. New homes have an average of 77 light bulbs. Changing these bulbs represents a low-cost, easy way for all customers to achieve energy savings.

In 2007, the majority of energy savings were achieved through IPC’s participation in three regional Change A Light promotions sponsored by the BPA. Additional energy savings were achieved from carryover from the 2006 Savings With A Twist (SWAT) promotion and limited direct-install opportunities. Table 9 describes the energy savings and the number of CFL bulbs contributed to each segment of the program.

Table 9. ENERGY STAR® Lighting 2007 Program Summary

Current Programs	kWh Energy Savings	# of CFL Bulbs
Savings With A Twist ⁽¹⁾	186,468	5,685
Change A Light Spring	3,263,141	99,486
Change A Light Fall Spiral	3,420,154	104,273
Change A Light Fall Specialty	258,431	7,879
Light Bulb Direct-Install	79,245	2,416
Total	7,207,439	219,739

⁽¹⁾ 2006 carryover

Results

Energy Impact

ENERGY STAR® Lighting program activities in Idaho and Oregon resulted in the installation of 219,739 CFLs for a savings of 7,207 MWh as compared to 6,302 MWh in 2006. In 2007, Idaho’s portion included the installation of 213,652 CFLs for a savings of 7,007 MWh, while Oregon’s portion consisted of the installation of 6,087 CFLs and a savings of 200 MWh.

BPA has calculated the energy impact of a CFL at 32.8 kWh/bulb for its CRC program. This is a regional average based on the wattage difference between the incandescent and CFL bulb, adjusted for heating impact, market saturation rates, and hours of operation. Although the BPA–CRC program was suspended mid-year, the Oregon portion of the spring Change a Light program was financed with CRC funds.

Customer Satisfaction

In 2007, IPC developed a strategy to address customer concerns recognizing the role of state and federal health and environmental professionals in regard to risks posed by mercury in CFLs. IPC informs customers of the presence of mercury in bulbs and directs them to the primary sources of environmental and health information for specific questions related to disposal, risk, and management.

Cost continues to be a market barrier with off-promotion CFLs priced at \$2 to over \$6 in the marketplace.

2008 Strategies

IPC will continue to promote ENERGY STAR® Lighting in 2008 through participation in regional lighting promotions and customer education, while exploring new projects to promote energy efficient lighting.

IPC will provide customer education through in-store events, targeting education efforts on new bulb applications and emerging advances in ENERGY STAR® lighting, including both CFL and light-emitting diode (LED) technologies.

Additionally, IPC will explore new programs for ENERGY STAR® fixtures and ceiling fans, and a light bulb program for smaller, rural retailers.

**Residential Sector
Energy Efficiency Program**

**Weatherization Assistance
for Qualified Customers**

Program Overview

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

Summary 2007

Participation.....408 units
Total Utility Costs.....\$1,323,624
Funding Sources
Idaho Rider.....\$0
Oregon Rider.....\$0
BPA.....\$28,035
IPC.....\$1,295,588
Savings in kWh.....3,338,126
Peak Savings in kW.....N/A

Description

The WAQC program 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. Enhancements enable low-income families to maintain a comfortable home environment, while saving energy and money otherwise spent on heating, cooling, and lighting.

WAQC is modeled after the U.S. Department of Energy (DOE) Weatherization Program. The DOE program is managed through Health and Human Services offices in Idaho and by the Oregon Housing and Community Services in Oregon.

IPC serves as the administrator of WAQC, in conjunction with Community Action Partnership (CAP) agencies in the IPC service area. Federal funds are allocated to the Idaho Department of Health and Welfare and the Oregon Housing and Community Services, then to CAP agencies based upon U.S. Census data

of qualifying household income within each CAP agency’s geographic area. The CAP agencies oversee local weatherization crews and contractors providing implementations that improve energy efficiency of the homes.

Table 10 provides a summary of WAQC IPC 2007 expenses.

**Table 10. Weatherization Assistance 2007
Year-End IPC Expenses**

	2007	
	Projects	Expenses
IPC Payments		
CAP Agencies⁽¹⁾		
CCOA.....	120	\$355,071
El-Ada.....	159	\$473,288
EICAP.....	6	\$12,788
SCCAP.....	65	\$171,830
SEICAA.....	47	\$111,604
ID Total	397	\$1,124,581
MCOA—OR.....	9	\$23,019
HCSCS—OR.....	0	\$0
CCNO—OR.....	2	\$5,869
OR Total	11	\$28,887
Total CAP Agencies	408	\$1,153,468
Non-Profit Projects		
Non-Profits—ID.....	0	\$75,760
Non-Profits—OR.....	0	\$0
Total Non-Profit	0	\$75,760
Total IPC Payments	408	\$1,229,228
IPC Administration⁽²⁾		\$94,395
Total IPC Program Expense		\$1,323,624

(1) See Glossary for Community Action Partnership (CAP) definitions.

(2) Includes BPA funding of \$28,035 for 2007.

Results

Participation

During 2007, Idaho CAP agencies weatherized 391 electrically heated homes and six buildings housing nonprofit agencies providing assistance to special-needs customers. Oregon CAP agencies weatherized 11 homes. In 2007, the

WAQC program completed a total of 408 weatherization jobs.

Energy Impact

The annual energy savings increased by 13% over the prior year, to 3,338,126 kWh in 2007 as compared to 2,958,024 kWh savings in 2006. Table 11 provides WAQC 2007 energy savings.

**Table 11. Weatherization Assistance 2007
Year-End Energy Savings**

kWh Savings for 2007	
CAP Agencies	
CCOA.....	1,304,375
EI-Ada	1,181,873
EICAP	20,525
SCCAP	286,709
SEICAA	203,916
ID Total	2,997,399
MCOA—OR	25,921
HCSCS—OR.....	0
CCNO—OR	16,187
OR Total	42,108
Total CAP Agencies	3,039,507
Non-Profit Projects	
Non-Profits—ID	298,619
Non-Profits—OR	0
Total Non-Profit	298,619
Total kWh Savings	3,338,126

2008 Strategies

IPC staff will continue to work with Idaho Department of Health and Welfare, Oregon Housing and Community Services, CAPAI, and individual CAP agency management and staff to coordinate services and monitor the program to best serve special-needs customers.

Customer Satisfaction

In 2007, the WAQC program received satisfaction surveys from customers whose homes had been weatherized through the program. Customers were asked how much they thought the weatherization had improved the comfort of their home. Seventy-three percent of the respondents replied that they thought the improvements helped. Fifty-one percent of the respondents also thought that weatherization would reduce future bills, and 93% reported having tried energy-saving ideas in their home.

Residential Sector Energy Efficiency Program

Heating and Cooling Efficiency

Program Overview

Target Customers.....Residential customers
Program Life.....2007–Ongoing

Summary 2007

Participation.....4 homes
Total Utility Costs.....\$488,211
Funding Sources
Idaho Rider.....\$482,051
Oregon Rider.....\$3,289
BPA.....\$0
IPC.....\$2,871
Savings in kWh.....1,595
Peak Savings in kW.....N/A

During fall 2007, IPC sponsored classes on the proper sizing of equipment and over 200 technicians attended these classes.

Results

Four customer incentives were processed in 2007, resulting in a total energy savings of 1,595 kWh.

2008 Strategies

In 2008, IPC plans to increase awareness and participation in the program by implementing a comprehensive marketing/advertising strategy, and by increasing the number of contractors properly sizing and installing heating and cooling equipment.

Description

The Heating and Cooling Efficiency (H&CE) program began in September 2007. The objectives of this program are to acquire kWh savings and reduce summer peak demand through the implementation of energy-saving HVAC measures in the residential sector. Cash incentives are provided to residential customers and HVAC contractors who install eligible central air conditioners (CAC), heat pumps, and evaporative coolers. Incentives are awarded for qualifying heat pump tune-ups and CAC tune-ups meeting IPC's program specifications. All work must be performed by a participating HVAC company.

The H&CE program is available to IPC customers in Idaho and requires contractors to become "participating" companies who must sign an agreement with IPC. The participating companies must ensure their service technicians and installers attend required training on the proper installation of air conditioners and heat pumps. These companies must purchase and use TrueFlow™ Meters to measure air flow, and adhere to program specifications.

COMMERCIAL/INDUSTRIAL SECTOR OVERVIEW

The commercial/industrial sector consists of approximately 62,000 customers, with 2,586 new customers added during 2007 for an increase of about 4.4%. Energy usage of customers within this sector varies from a few kWh each month to several hundred thousand kWh per month. This sector represents approximately 52% of IPC's total actual system energy sales. The industrial customers in this sector are IPC's largest individual energy consumers. This group consists of approximately 300 customers and accounts for about 29% of IPC's system energy sales.

Programs

Three programs targeting different energy efficiency activities are available to the commercial/industrial customers. The newest program offered in this sector, Easy Upgrades, was launched in Idaho in February 2007 and in Oregon in May 2007. The program is designed to deliver energy efficiency and demand-side savings to all existing commercial and industrial customers. Easy Upgrades offers a menu of incentives for lighting, HVAC, motors, building shell, plug loads, and grocery refrigeration. With the launch of this program, the former

Oregon School Efficiency program was discontinued since schools can now participate in Easy Upgrades.

The Building Efficiency program for new construction projects achieves energy savings that are cost-effective at the time of construction. This program continues to offer energy-saving improvements for lighting, cooling, building shell, and energy control efficiency options.

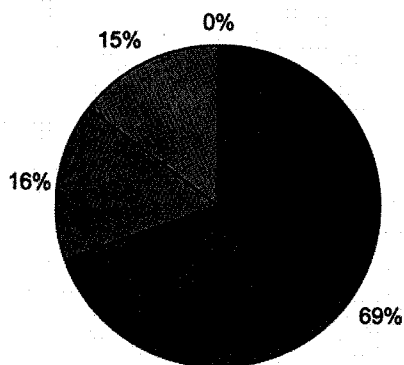
Both Building Efficiency and Easy Upgrades participants can receive incentives up to \$100,000 for any projects completed.

The Custom Efficiency program, formerly the Industrial Efficiency program, was expanded to include large commercial customers in 2007. This program is intended for larger custom projects.

IPC continues to offer its Oregon Commercial Audits program to medium and small commercial customers.

Commercial/industrial sector direct program expenses are shown by program in Figure 5 below.

Figure 5. 2007 Commercial/Industrial Sector Direct Program Expense



Commercial/Industrial Sector Programs	2007 Expenses	Percent of Expenses
■ Custom Efficiency	\$3,161,866	69.6%
■ Easy Upgrades	\$711,494	15.7%
■ Building Efficiency	\$669,032	14.7%
■ Oregon Commercial Audits	\$1,981	0.0%
Total	\$4,542,392	100.0%

Results

Total annual energy savings for the commercial/industrial programs increased by about 88%, from 20,139,514 kWh in 2006 to 37,790,192 kWh in 2007. See Table 12. See Table 13 regarding the demand reduction attributable to 2007 commercial/industrial program activity.

Table 12. Commercial/Industrial Sector Energy Savings (kWh)

	kWh
Building Efficiency	2,817,248
Easy Upgrades.....	5,183,640
Oregon Commercial Audits	N/A
Custom Efficiency.....	29,789,304
Total	37,790,192

Table 13. Commercial/Industrial Sector Demand Reduction (kW)

	akW	Summer Peak kW
Building Efficiency	322	454
Easy Upgrades.....	592	780
Oregon Commercial Audits	N/A	N/A
Custom Efficiency.....	3,401	3,622
Total	4,314	4,856

Commercial/Industrial Sector Energy Efficiency Program

Building Efficiency

Program Overview

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

Summary 2007

Participation.....	22 projects
Total Utility Costs.....	\$669,032
Funding Sources	
Idaho Rider.....	\$661,485
Oregon Rider.....	\$5,766
BPA.....	\$0
IPC.....	\$1,781
Savings in kWh.....	2,817,248
Peak Savings in kW.....	454 (summer peak)

Description

The Building Efficiency program is available to commercial and industrial customers involved in the construction of new buildings or construction projects with significant additions, remodels, or expansions. Under this program, customers are able to apply energy efficient design features and technologies to their projects that would otherwise be lost opportunities for energy savings. Launched in Idaho in the spring of 2005, the program expanded to Oregon in January 2006.

Menu offerings within the Building Efficiency program include measures and incentives for lighting, cooling, building shell, and control efficiency options.

Program marketing enlists architects, engineers, and other local design professionals. Monthly e-mail updates are sent to building developers, design professionals, contractors, building owners, IPC field personnel, and other interested parties.

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[®] program.

Results

The success of the program in 2007 can partially be attributed to the addition of a group of three control measures added to the menu of Building Efficiency incentive opportunities. Approximately 31% of Building Efficiency participants took advantage of the energy management control system, the demand control ventilation, and/or the variable speed drives. These measures resulted in savings of over 1,500 MWh.

Participation

During 2007, a total of 81 applicants submitted preliminary applications for projects to be completed from 2007 to 2009. A total of 22 projects were completed and their incentives awarded.

Energy Impact

The annual energy savings increased by almost 300% over the prior year, from 704,541 kWh in 2006 to 2,817,248 kWh in 2007. The peak demand reduction increased by 34%, from 338 kW in 2006 to 454 kW in 2007.

2008 Strategies

In 2008, IPC will make minor modifications to the program in order to accommodate Idaho's recent adoption of the IECC, effective January 1, 2008. Eligibility requirements for three of the 14 measures changed for 2008.

Another change, effective February 1, 2008, is that all final applications for incentive payments must be submitted within 60 days of project completion.

Commercial/Industrial Sector Energy Efficiency Program

Easy Upgrades

Program Overview

Target Customers.....	Commercial and industrial customers
Program Life.....	2007–Ongoing

Summary 2007

Participation.....	104
Total Utility Costs.....	\$711,494
Funding Sources	
Idaho Rider.....	\$680,376
Oregon Rider.....	\$28,014
BPA.....	\$0
IPC.....	\$3,105
Savings in kWh.....	5,183,640
Peak Savings in kW.....	780 (summer peak)

Description

In February 2007, Easy Upgrades was launched in Idaho, followed by a May 2007 launch in Oregon. The Easy Upgrades program was designed to encourage commercial and industrial energy-saving retrofits. The program has six menus of eligible, energy-saving measures and incentives, covering various commercial energy-saving opportunities in lighting, HVAC, motors, building shell, plug loads, and grocery refrigeration.

Program marketing included advertising in key business publications and providing 10 workshops in February and September. The workshops were designed to network with contractors, vendors, and other trade allies, inform them of the Easy Upgrades program, and provide the tools to promote it. Additional program-related communications went out to trade allies, commercial customers, and IPC field personnel.

As part of this new program, a special promotion for directly installed VendingMiser™ controls was started in November. The energy-saving plug-in device

uses an occupancy-sensor based technology to manage energy used by vending machines. By the end of the year, over 1,000 controls were installed.

IPC helps sponsor the Lighting Design Lab (LDL) in Seattle through the Easy Upgrades program. LDL provides technical assistance and periodic local training seminars encouraging energy-saving lighting. Additionally, IPC is a sponsor of NEEA's BetterBricks® program, disseminating general energy efficiency information to commercial customers.

IPC also offered a special promotion for LEDs. This promotion focused on holiday lighting. Through a seasonal promotion, IPC provided a per-bulb incentive to non-residential customers to replace incandescent holiday lights with more efficient LED lights. Eight facilities participated in this promotion, resulting in savings of 11,779 kWh. High-profile community displays were targets for this promotion in order to showcase the benefits of LEDs. The Winter Garden Aglow display at the Idaho Botanical Garden is a good example of that. They replaced 14,700 incandescent bulbs for an estimated savings of 7,996 kWh. Two local newspapers covered this project. Signs posted near the display educated over 26,500 attendees about energy efficient LED lights.

Results

Participation

During the year, 219 pre-applications were submitted and 104 projects were completed. Those totals included eight pre-applications and three completed projects in Oregon.

Energy Impact

The annual energy savings from the Easy Upgrades program was 5,183,640 kWh, which included the 1,116,288 kWh saved from installing VendingMisers™. The peak demand reduction impact for the Easy Upgrades program was 780 kW.

Customer Satisfaction

Input is regularly solicited from program participants to assess their satisfaction. Approximately one month after they receive their incentive payment, IPC provides each participant with a customer survey Web link. The survey asks a series of customer satisfaction questions about their participation.

As of January 2008, responses indicate that 48% of the respondents first learned of the Easy Upgrades program from their contractor, supplier, or vendor. The result supports IPC's focus on marketing and communicating with those same trade allies.

A key question asked on the survey was "Overall, how much would you agree that you received an excellent value from Idaho Power through this program?" Nearly 73% of the respondents replied "Strongly Agree," and nearly 12% replied "Somewhat Agree."

2008 Strategies

IPC will continue promoting the program to business and professional associations, will coordinate with trade allies, and will continue the VendingMiser™ promotion until 2,500 units are installed.

In 2008, several new features will be added. An electronic lighting calculator for proposed lighting retrofits will be offered to both customers and lighting contractors. This tool will easily analyze a project's energy savings potential, indicate incentives available, and show the net return on investment. The lighting calculator will be coupled with a Web-based electronic application. This should make the application process easier for customers and reduce processing time for IPC staff. A series of one-page testimonials from program participants is being created to promote the program. These success stories will be available as printed documents and displayed on the IPC Web site.

Commercial/Industrial Sector Energy Efficiency Program

Oregon Commercial Audits

Program Overview

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

Summary 2007

Participation.....	8 audits
Total Utility Costs.....	\$1,981
Funding Sources	
Idaho Rider.....	\$0
Oregon Rider.....	\$1,800
BPA.....	\$0
IPC.....	\$181
Savings in kWh.....	N/A
Peak Savings in kW.....	N/A

Description

Available to all Oregon commercial customers since 1983, the Oregon Commercial Audits program identifies opportunities for commercial building owners to achieve energy savings. Evaluations, through energy audits, and educational services are offered. Program benefits and offerings are communicated to the target market through an annual mailing to each customer in the commercial sector.

As was done in 2005 and 2006, IPC offered the *Saving Energy Dollars* publication to customers who wanted more information on saving energy and reducing expenses. New in 2007 was the Building Energy Efficiency Program (BEEP) workshop, offered for free in lieu of an energy audit, valued at \$150 per participant. The day-and-a-half workshop, held in Boise in September, focused on proven, no-cost and low-cost energy-saving techniques.

Results

In late August 2007, IPC mailed its annual letter to all Oregon commercial customers. Customers were notified of the availability of no-cost

energy audits and the IPC publication *Saving Energy Dollars*. This mailing resulted in 16 customer responses for information or an energy audit. Eight customers requested only the *Saving Energy Dollars* publication. Eight customers returned requests for energy audits. IPC personnel conducted four of the audits and a third-party contractor conducted the other four audits. One customer took advantage of the free pass to the BEEP workshop in September.

2008 Strategies

In 2008, the third-party energy auditing contract is up for renewal. IPC is planning to issue a new Request for Proposal (RFP) from contractors for future energy audits. IPC is also evaluating the potential for enhanced correlation between the Oregon Commercial Audit program and the Easy Upgrades incentive program by using the energy audit as a tool to promote the Easy Upgrades incentive program.

Commercial/Industrial Sector Energy Efficiency Program

Custom Efficiency

Program Overview

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

Summary 2007

Participation.....	49 projects
Total Utility Costs.....	\$3,161,866
Funding Sources	
Idaho Rider.....	\$3,032,047
Oregon Rider.....	\$110,634
BPA.....	\$0
IPC.....	\$19,185
Savings in kWh.....	29,789,304
Peak Savings in kW.....	3,622 (summer peak)

Description

Initially implemented as a pilot program in 2003, the Industrial Efficiency program was selected for implementation as a result of the 2004 Energy Plan. An expansion of this program was identified in the 2006 Energy Plan and, as a result, the program was expanded in 2007 and renamed the Custom Efficiency program. It is offered to all large commercial and industrial customers in Idaho and Oregon.

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

Operationally, the program provides training and basic education on energy efficiency, energy auditing services for project identification and evaluation, and financial incentives for project implementation.

The key components in facilitating customer implementation of energy efficiency projects are

energy auditing, customer training, and education services.

Interested customers submit applications to IPC, identifying potential projects applicable to their facilities. The applications must provide sufficient information to support the energy savings calculations.

Project implementation begins after IPC's review and approval of an application, followed by the finalization of the terms and conditions of the applicant's and IPC's obligations. When possible, IPC conducts on-site power monitoring and data collection, before and after project implementation. The measurement and verification process ensures that projected energy savings are achieved. Verifying applicants' information confirms that demand reduction and energy savings are obtainable and within program guidelines.

If changes in scope occur in a project, the energy savings and incentive amounts are recalculated based on the actual installed equipment. Large, complex projects may take as long as two years to complete.

In 2007, the Custom Efficiency program incorporated several changes. The program was expanded to include all large commercial and industrial customers. Previously, only customers with a basic load capacity (BLC) of more than 500 kW were eligible to participate in the program. Incentive levels were increased to 70% of the project cost, or \$0.12/kWh, whichever is less. The incentives previously were capped at 50% of the project cost, or \$0.12/kWh, whichever was less. In 2007, the incentive cap was removed. Previously, the cap was \$100,000 per customer account.

The link between energy audits and completed projects is historically strong; thus, IPC expanded the number of contractors available to do customer scoping audits from one company in 2006 to four companies in 2007. Engineering firms were chosen for their expertise in all

major equipment areas and their ability to provide resources for customers throughout IPC's service area.

Results

The Custom Efficiency program has achieved a high penetration rate, approximately 25%, with the large commercial and industrial customers.

Participation

IPC reviewed and approved 87 applications for incentive projects in 2007. A total of 49 projects were completed in 2007, consisting of 29 companies at 37 separate locations, and one Oregon project. Three more Oregon project applicants are scheduled for completion in early 2008.

Energy Impact

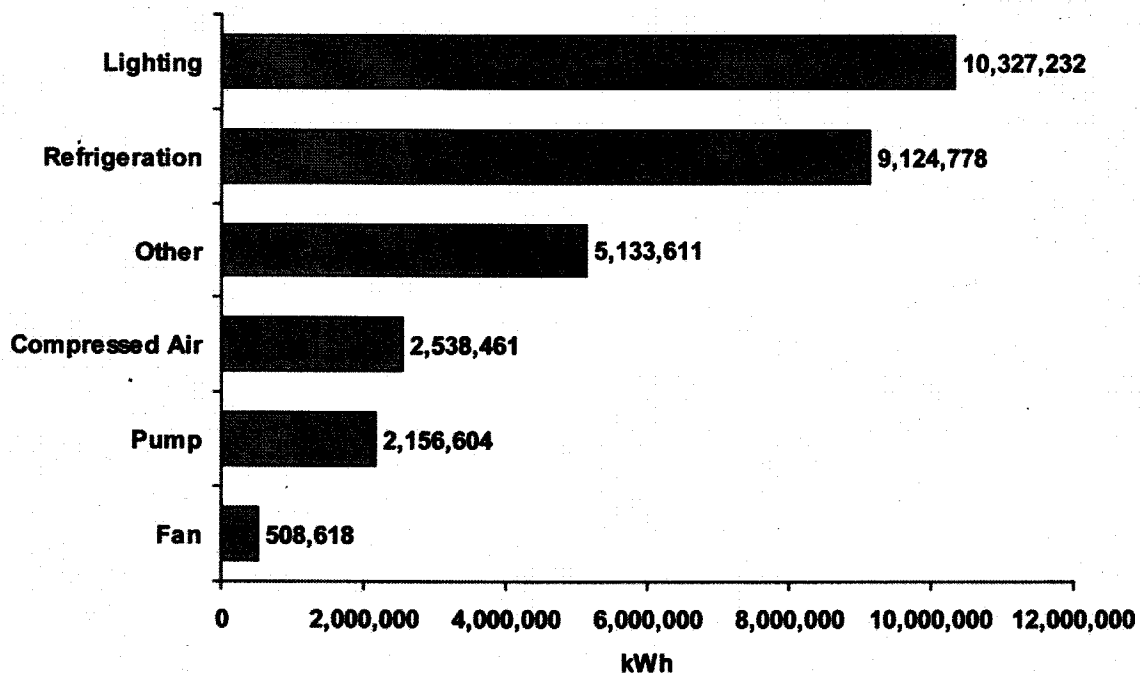
The Custom Efficiency program increased energy savings in 2007 by 55% over the prior year, from 19,212 MWh to 29,789 MWh. Additionally, completed projects increased by 23% and approved incentive applications

increased by 45%. Figure 6 shows Custom Efficiency annual energy savings by measure.

2008 Strategies

In 2008, IPC plans to continue the expansion of the Custom Efficiency program through a number of avenues. This will include direct marketing of the Custom Efficiency program by IPC field staff. IPC will continue to provide site visits and energy audits for project identification, technical training for customers, detailed energy audits for larger, complex projects, and delivery of Industrial Efficiency Alliance (IEA)-sponsored continuous energy improvement practices to customers.

Figure 6. 2007 Custom Efficiency Measures Annual Energy Savings (kWh)



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 not eligible for DSM irrigation programs.

In total, 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 many 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 2007, with an average peak load reduction of 28.9 MW and a maximum summer peak reduction of 37.4 MW. The maximum summer peak reduction was approximately 18% higher in 2007 than in 2006. This was due primarily to changes in the program incentive structure, which caused more two- and three-day-per-week participants.

The Irrigation Efficiency Rewards program had strong participation in 2007. However, the maturity of the program and the early adoption of the menu options by irrigators have caused a leveling off of projects in 2007. Program redesign, implemented in 2006, offered increased incentive levels and provided a menu option program that is popular with irrigation customers. The total energy savings for 2007 was 12,304 MWh on 819 projects across IPC's service area. Table 14 shows the 2007 irrigation sector's direct expenses, energy savings, and summer peak demand reduction attributable to Irrigation Peak Rewards and Irrigation Efficiency Rewards programs.

Table 14. 2007 Irrigation Program Summary, Energy Savings (kWh) and Demand Reduction (kW)

	Direct Expenses	kWh Energy Savings	kW Summer Peak Demand Reduction
Irrigation Efficiency Rewards	\$2,001,961	12,304,073	3,407
Irrigation Peak Rewards	\$1,615,881	N/A	37,441
Total	\$3,617,843	12,304,073	40,848

Irrigation Sector Demand Response Program

Irrigation Peak Rewards

Program Overview

Target Customers.....	Irrigation customers with 75+ hp irrigation systems
Program Life.....	2004–Ongoing

Summary 2007

Participation.....	947 service points
Total Utility Costs.....	\$1,615,881
Funding Sources	
Idaho Rider.....	\$1,520,106
Oregon Rider.....	\$54,747
BPA.....	\$0
IPC.....	\$41,028
Savings in kWh.....	N/A
Peak Savings in kW.....	37,441 (maximum summer reduction)

Description

The Irrigation Peak Rewards program was initially implemented as a pilot program in 2004 and fully implemented in 2005 as a result of the 2004 Energy Plan planning process. In 2006, the program became available to IPC's Oregon customers.

It is a voluntary program targeted toward agricultural irrigation customers with pumps of 75 horsepower or greater. The program objective is to reduce peak electrical load during summer weekday afternoons. Preprogrammed electronic time-activated switches turn off the pumps of participating irrigation customers during intervals predetermined by IPC in exchange for a financial incentive.

Participants select one of three different options for the months of June, July, and August. A monthly demand credit is associated with each of the one-, two-, or three-day options and is paid based on the participating customer's monthly billing demand. Electric timers are programmed to turn off irrigation pumps during

preprogrammed time periods associated with the selected option.

During 2007, the following options and associated demand credit incentives were available to customers from 4 to 8 p.m. weekdays: a one-day-per-week, \$2.01 per kW demand; a two-days-per-week, \$3.36 per kW demand; or a three-days-per-week, \$4.36 per kW demand. Incentive amounts credited to customers' monthly bills are calculated separately for each metered service point.

IPC made changes to the program in 2007, as approved by the IPUC and OPUC. Modifications increased the incentive amounts for the two-days and three-days per week options, and extended the program eligibility to service locations with at least 75 horsepower, in contrast to at least 100 horsepower required in 2006. A one-time \$250 fee is required from customers with pumps of 75 to 99 horsepower to help offset the cost of the switches and maintain the program's cost effectiveness.

Results

Participation

Enlisted service points slightly increased during 2007, due to the lowered horsepower limit. Participation rates show the program achieved 19.5% participation with 947 service points out of 4,852 eligible service points. In 2006, there were 906 service points in Idaho and 13 service points in Oregon. In 2007, there were 925 service points in Idaho and 22 service points in Oregon.

Demand Impact

Each summer the program has produced substantial and measurable impacts on peak demand. During summer 2007, the program produced an average load reduction across all three months of 28.9 MW, with an average of 32.8 MW load reduction in the month of July. Maximum load reduction occurred during the second half of June when an estimated

37.4 MW reduction was achieved. The customers' peak reduction loads are scheduled evenly each day of the week by IPC, based on historical information on system peaks.

2008 Strategies

IPC plans to operate the Irrigation Peak Rewards program without any changes to its structure for the 2008 irrigation season. However, in cooperation with the Idaho Irrigation Pumpers Association and IPUC staff, IPC is putting together a working group in the spring of 2008 to review the current program and to investigate a dispatchable demand response option for 2009.

Irrigation Sector Energy Efficiency Program

Irrigation Efficiency Rewards

Program Overview

Target Customers.....	Agricultural irrigation systems
Program Life.....	2003–Ongoing

Summary 2007

Participation.....	819 Projects
Total Utility Costs.....	\$2,001,961
Funding Sources	
Idaho Rider.....	\$1,881,116
Oregon Rider.....	\$93,924
BPA.....	\$0
IPC.....	\$26,922
Savings in kWh.....	12,304,073
Peak Savings in kW.....	3,407 (summer peak)

Description

Initially implemented as a pilot program in 2003, the Irrigation Efficiency Rewards program was fully developed following its selection by the 2004 Energy Plan. Designed to improve the energy efficiency of irrigation systems in IPC's service area, a wide range of financial incentives and educational methods are provided. The program has been offered in Idaho since 2003 and in Oregon since 2006.

To meet the needs of various irrigation systems, two separate options are available for major or minor changes on new or existing systems.

The Custom Incentive Option provides component upgrades and large-scale improvements. For new systems, the incentive is \$0.25 per kWh saved above standard installation methods, not to exceed 10% of total project cost. For existing system upgrades, the incentive is \$0.25 per kWh saved or \$450 per kW, whichever is greater, not to exceed 75% of total project cost.

The Menu Incentive Option is designed for systems in which small maintenance upgrades

provide energy savings. Incentives vary based on specific component replacement.

Payments are calculated on predetermined average kWh savings per component. IPC reviews and analyzes each proposal for a system or component modification to determine and verify the energy savings.

In addition to incentives, the program offers customer education, training, and irrigation system assessments. IPC agricultural representatives sponsor, coordinate, conduct, and present educational workshops for irrigation customers, providing expert information and training across IPC's service area. Energy audits are provided to prospective customers by IPC agricultural representatives to evaluate potential savings.

Agricultural representatives from IPC also engage agricultural irrigation equipment dealers in training sessions, increasing awareness of the program and promoting it through the irrigation equipment distribution channels.

Marketing efforts include direct mailings, advertisements in agricultural publications, and agricultural trade show participation.

Results

Participation

In 2007, a total of 819 projects were completed with irrigation customers, of which 120 were under the Custom Incentive Option and 699 were under the Menu Incentive Option. Incentive payments to customers in 2007 totaled \$1,744,260, down from \$2,477,598 paid in 2006. The decrease was due to a decline in total number of projects in 2007.

Energy Impact

The energy impact of the program was 12,304 MWh of energy savings and 3.4 MW of peak load reduction in 2007. In 2006, the energy

savings was 16,986 MWh and 5.1 MW of peak load reduction.

2008 Strategies

IPC plans to continue offering the program without any changes in 2008. However, ongoing IPC program reviews may result in adjustments in the incentive levels, program structure, and marketing efforts as operational experience merits.

MARKET TRANSFORMATION

Northwest Energy Efficiency Alliance (NEEA)

NEEA encourages and supports cost-effective market transformation efforts in Idaho, Oregon, Washington, and Montana. Through partnerships with local utilities, NEEA motivates marketplace adoption of energy saving services and technologies, and encourages regional education and marketing platforms. NEEA provides training and marketing resources across residential, commercial, and industrial sectors.

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 achieve 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), the Oregon Department of Energy (ODOE), and the Idaho Office of Energy Resources (OER). Training activity in 2007 included three industrial workshops co-sponsored by the IEA, IPC, and others. This training activity focused on pumps, motors, and industrial refrigeration.

Commercial Alliance Activities in Idaho

NEEA continued to provide support for commercial energy efficient activities in Idaho in 2007. NEEA continued funding the Boise Integrated Design Lab and local BetterBricks® trainings and workshops. NEEA sponsored Idaho's Fourth Annual BetterBricks® Awards, issued in October in conjunction with the Idaho Energy & Green Building Conference. IPC's commercial programs, Building Efficiency and Easy Upgrades, are designed to leverage NEEA, BetterBricks®, and Boise Integrated Design Lab activities.

Distribution Efficiency Initiative

In 2007, IPC continued to participate with other northwest utilities in NEEA's Distribution Efficiency Initiative project study.

Phase 1 Projects Completed

NEEA conducted a Distribution Efficiency Initiative Project study, which included a Load Research project and Pilot Demonstration projects. The Load Research project was designed to establish the relationship between applied voltage and energy, in addition to how applied voltage affects demand for different end-use load types such as electric heating, electric water heating, and air conditioning. The Pilot Demonstration projects controlled the voltage at the substation in order to determine the performance of different efficiency methods. Phase I was concluded in 2007.

The NEEA study's final report shows that operating a utility distribution system in the

lower half of the acceptable voltage range of 120 through 114 volts saves energy (kWh), reduces demand (kW), and reduces reactive power (i.e., kilovolt ampere reactive [kvar]) requirements without negatively impacting the customer. The energy savings results are within the expected values of 1% to 3% total energy reduction, 2% to 4% reduction in kW demand, and a 4% to 10% reduction in kvar demand.

As part of the completion of this project, the 66 Home Voltage Regulators (HVRs) operating in southern Idaho since March 2006 were removed during the summer of 2007. The purpose of the HVR was to adjust service entrance voltage at the residence.

Project for 2007

A new pilot was implemented during the second quarter of 2007 to demonstrate remote end-of-feeder control of the station transformer load-tap changer. The project uses wireless communication between the end-of-feeder and the substation to adjust the substation voltage based on the measured end-of-feeder voltage. Application of technology allows better control of the end-of-feeder voltage.

Residential NEEA Activities in Idaho

NEEA continues to provide support for two programs offered by IPC: ENERGY STAR[®] Homes Northwest and ENERGY STAR[®] Lighting. In the ENERGY STAR[®] Homes Northwest program, NEEA offers technical assistance, funding for certifications, and builder and marketing support. In the Lighting program, NEEA offers manufacturer and sales coordination and marketing assistance through its contractor, Fluid Market Strategies.

Other NEEA Activities in Idaho

In 2007, IPC participated with NEEA to develop an RFP for the ENERGY STAR[®] Homes Northwest impact evaluation. This study will provide estimates for whole-house energy savings of ENERGY STAR[®]-certified homes in the Northwest region. The evaluation approach

began development in November 2007. Implementation of the analysis will begin in 2008, and final results will be provided in 2009.

During 2007, NEEA continued to support building code improvements to jurisdictions in Idaho in the form of funding for code training and other activities. Funding supported the efforts of the Idaho Building Code Coalition, which was instrumental in moving the 2006 IECC through the Idaho legislative process. The code was adopted during the 2007 legislative session and went into effect January 1, 2008. Its purpose is to increase energy efficiency in new construction by requiring improved building practices for the residential and commercial sectors.

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[®] and ConWeb[®].

NEEA also funded a variety of research projects that were reported on in 2007. These reports are valuable to IPC for providing information for creating and evaluating IPC's programs. These research projects included the Existing Multifamily Tenant Appliance Efficiency Saturation Study; Single-Family Existing Construction Residential Stock Assessment; Multifamily Residential New Construction Characteristics and Practices; and Residential New Construction Characteristics and Practices.

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 IPC's service area. Of this amount in 2007, 70% was funded through the Idaho and Oregon Riders, and 30%

was funded by a credit accumulated during the previous contract period.

In 2007, IPC paid \$891,472 to NEEA. The Idaho jurisdictional share of the payments was \$846,898, while \$44,574 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 2007 is 28,601 MWh, or 3.3 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.

ENERGY EFFICIENCY ADVISORY GROUP (EEAG)

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

In 2007, the EEAG met three times: on March 23, September 12, and November 14. During the meetings, IPC requested recommendations on new program proposals, provided a status of the Rider funding and expenses, updated ongoing programs and projects, and supplied information 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 2007. 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 2007 included Heating and Cooling Efficiency, ENERGY STAR[®] Appliances, ENERGY STAR[®] Homes Northwest, and A/C Cool Credit. In addition, the group was provided updates for ENERGY STAR[®] Lighting, Rebate Advantage, and Energy House Calls.

Heating and Cooling Efficiency

- Look to Delivery Service Representatives to recommend program contractors in their area. *(Delivery Service Reps have been assigned specific DSM tasks and goals in 2007, which will be tracked against actual performance.)*
- Contact outside sources for advice regarding the design of the HVAC program. *(Contractors, other utilities, and regional HVAC program experts were consulted extensively for the design of the Heating and Cooling Efficiency program.)*
- Implement quality assurance in the Heating and Cooling program. *(Quality assurance by a third party will occur in approximately 7% of all installs for this program.)*
- To accurately measure A/C savings, strictly measure using a Seasonal Energy Efficiency Ratio (SEER) 13 baseline. *(Cost effectiveness for the Heating and Cooling program used SEER 13 as the savings baseline.)*
- Implement a sales incentive for contractors in the Heating and Cooling program. *(Contractors receive \$50 for services related to this program.)*
- Offer a design workshop and training to HVAC contractors. *(Training workshops for each region in IPC were held in 2007, and additional workshops are planned in 2008.)*

ENERGY STAR[®] Appliances

- Take old refrigerators out of service. *(Currently exploring options to offer a refrigerator recycling program.)*
- Join with water utility to market clothes washers. *(No local water utilities in IPC)*

service area offer energy efficiency incentives at this time, but will explore avenues for joint marketing efforts.)

- Do not provide incentives for plasma television sets. *(It's unlikely that plasma TVs would prove cost effective because of their high energy use.)*
- Collaborate with local appliance retailers. *(Developing relationships and materials for appliance retailers to use as part of the ENERGY STAR® appliance program.)*
- An automated process would ensure that applications and incentives are processed efficiently. *(Incentive processing was automated in 2007 to increase accuracy and improve customer response time.)*
- Perhaps limit the amount of information included in the bills so that people are more likely to read the bill stuffer. *(Because of the number of programs and the demand for bill stuffer area availability, most slots will be filled throughout the calendar year on the bill stuffer calendar.)*
- Target those markets where customers may not be expecting energy efficiency messages. *(Currently exploring ways to co-market a bill stuffer with other utilities in Boise.)*

ENERGY STAR® Homes Northwest

- Educate mortgage lenders about ENERGY STAR® Homes Northwest. *(Lenders will be invited to realtor training sessions.)*
- Several members suggested that the A/C Cool Credit program be mandatory for ENERGY STAR® Homes. It was also suggested that customers who do not participate in A/C Cool Credit have a higher connection fee for their new homes. *(IPC has no plans to require customers to participate in programs, the preference being to pursue voluntary participation which leads to better customer satisfaction.)*

General Suggestions

- When a bill stuffer is sent out, follow up with a co-marketing piece, like a radio or newspaper ad. *(Marketing plans will include opportunities for cross-marketing programs through various media channels.)*
- Encourage short-term promotions to take advantage of the market environment, such as the Christmas tree lights. *(Vending Miser™ program began in December 2007 and will go through April 2008.)*
- Large numbers of vending machines that came out in the 1990s are about to be refurbished, and the region is looking at partnering with vending machine manufacturers to improve energy efficiency in older models. *(IPC will investigate these opportunities in the future.)*
- The consensus of the group was to move forward with the Vending Miser™ promotion, pending full, cost-effective analysis. *(The promotion launched in December 2007.)*

Commercial and Industrial Programs

At the September EEAG meeting, IPC presented an Easy Upgrades program report, and offered proposals for a single-measure promotion for the Vending Miser™ program and a Holiday Lighting program for commercial customers. Members provided the following suggestions:

- Encourage short-term promotions to take advantage of the market environment, such as the Christmas tree lights. *(Vending Miser™ program began in December 2007 and will go through April 2008.)*
- Large numbers of vending machines that came out in the 1990s are about to be refurbished, and the region is looking at partnering with vending machine manufacturers to improve energy efficiency in older models. *(IPC will investigate these opportunities in the future.)*
- The consensus of the group was to move forward with the Vending Miser™ promotion, pending full, cost-effective analysis. *(The promotion launched in December 2007.)*

Irrigation Programs

The Irrigation Peak Rewards program is a successful program, with visible megawatt reductions in load observable at the system load data level at 4 p.m. on scheduled summer weekdays. A program update was provided at the November EEAG meeting. Questions and comments included:

- A question was posed regarding the necessity of requiring customers to sign up each year to participate in the Peak Rewards program. *(There are several reasons that make it more effective to do it this way: crop rotation, lease agreements that are not finalized until the middle of the next year, equipment issues, and quality assurance issues.)*
- Offer an increased incentive to customers to entice them to sign up sooner. *(An “early install incentive” might get customers in the program sooner, but not necessarily more of them, because there are other constraints on irrigators that prevent them from signing up. One member stated that he has some irrigation systems that will never be put on the program due to their complexity.)*

Local Energy Efficiency Funds (LEEF)

The EEAG was consulted regarding the purpose and project cap limit of the Small Project/Education Funds, which are now called the Local Energy Efficiency Funds (LEEF). When the Small Project/Education Fund was authorized in 2003, individual projects were limited to \$5,000. A proposal was made to increase individual expenditures through this fund, as the number of requests greater than \$5,000 has increased over the years.

Discussion focused on the relative merits of the fund, and its flexibility in responding to unsolicited proposals from customers.

The suggestion was made that if it looks like the project could be turned into a program and made available to others, that potential should be pursued.

It was the general consensus of the group that this fund should have the flexibility to fund projects above \$5,000 but, in most cases, not exceed \$10,000. It was also suggested that the pool of fund dollars should be allowed to grow as well so that funds are available for beneficial projects.

IPC will fund projects larger in scope in the future, and solicit feedback from EEAG for specific proposals that exceed \$10,000.

OTHER PROGRAMS AND ACTIVITIES

Residential Energy Efficiency Education Initiative

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

Activities

Program activities during 2007 included the design and implementation of a five-class series promoting energy efficiency to an adult audience, titled Fall Energy Efficiency and Sustainability Series. Topics covered included simple no- and low-cost ways to save energy, weatherization, insulation, ventilation, green building, sustainable building with Leadership in Energy and Environmental Design (LEED), easy ideas of ways to re-think, reduce, reuse, recycle, net metering, and renewable energy sources. The classes were well attended all five nights, with 50 to 100 attendees per night.

Another outcome of this program was to produce printed materials to improve customer awareness of energy saving ideas, including the Summer and Winter Energy Savings Tip cards and the Home Energy Efficiency Audit brochures.

Through use of the Internet, the Residential Energy Efficiency Education Initiative program reached out to IPC's customers and others offering energy efficiency ideas and solutions. The IPC Web site pages related to energy efficiency information were evaluated and updated.

In addition to conducting workshops and seminars for local groups to promote IPC's residential programs and energy savings ideas, IPC conducted open houses and outreach programs to build and foster employee awareness for energy efficiency. The primary goal was to focus on general efficiency and increased participation in existing program offerings.

Commercial Education Initiative

IPC has long recognized the value and importance of providing energy efficiency information to commercial customers. Efforts to develop a commercial customer energy education initiative began in the fall of 2007. The focus was on the development of a short-term pilot program targeting small commercial customers and the development of an energy efficiency education strategy for all commercial customers.

During the fall of 2007, goals were established and a marketing plan was developed to reach all commercial customers with energy efficiency education. Field research was conducted with IPC personnel assisting in gauging the energy education needs of the customers. Additional research was conducted assessing the industry's best practices for small business energy efficiency education. An implementation plan was developed and is due to launch in 2008. The main objectives are to increase participation in existing commercial DSM programs, enhance customer satisfaction, and reduce energy use for this customer segment. The Commercial Education Initiative will compliment and support existing DSM program activities.

Local Energy Efficiency Funds (LEEF)

Formerly called the Small Projects and Education Fund, the purpose of LEEF is to provide modest funding for short-term projects

and activities that do not fit within other categories of energy efficiency programs but still provide a defined benefit to furthering DSM targets.

In 2007, one project met these criteria. The OER arranged for the installation and long-term monitoring of a Hallowell International cold climate heat pump during the 2007–2008 heating season in McCall, Idaho. The home was previously heated with an electric forced-air furnace and was certified in 2006 as an ENERGY STAR® home. In 2007, LEEF awarded \$7,500 to support the research project and to test the new heat pump's effectiveness in a cold climate. In return, OER will provide all data, data analyses, and reports that result from this study.

REGULATORY INITIATIVES

This past year was the first of a three-year pilot period during which IPC is testing the effects of a Fixed-Cost Adjustment (FCA) and a Performance-Based DSM Incentive. The two pilots are being operated on a limited basis to allow for a thorough evaluation to be conducted prior to a broader application of the financial mechanisms.

Fixed-Cost Adjustment Pilot

The FCA is a true-up mechanism that “decouples,” or separates, energy sales from revenue in order to remove the financial disincentive that exists when IPC invests in DSM resources. On March 12, 2007, the IPUC issued Order No. 30267 authorizing a three-year pilot of the FCA within the residential and small commercial customer classes. Under the FCA, rates are adjusted annually up or down to recover or refund the difference between the fixed-costs authorized by the IPUC in the most recent rate case and the fixed-costs that IPC actually received through energy sales during the previous year. Through the application of this true-up mechanism, IPC is not financially harmed by decreases in energy sales within the residential and small commercial customer classes, thus removing any disincentives for IPC to pursue DSM opportunities with those customers.

The FCA pilot is limited to the residential and small commercial classes in recognition of the fact that, for these customers, a high percentage of fixed costs are recovered through energy charges. Confining the pilot to the residential and small commercial classes also allows the true-up mechanism to be tested on a limited basis to minimize any unintended consequences.

Performance-Based DSM Incentive Pilot

To compliment the FCA pilot, IPC is testing the effects of a Performance-Based DSM Incentive mechanism over the same three-year period. On March 12, 2007, the IPUC issued Order No. 30268 authorizing the implementation of a Performance-Based DSM Incentive pilot that allows IPC to retain a portion of the financial benefits resulting from DSM activities when energy savings targets are exceeded. IPC is also subject to a penalty under the incentive pilot should it fail to meet energy savings levels previously achieved. During the pilot period, the incentive mechanism is being applied only to the ENERGY STAR® Homes Northwest Program. By applying this mechanism on a limited basis, IPC is able to gain a better understanding of the effects of a performance incentive while minimizing the potential impact to customers. IPC ultimately intends to use the information gained during the pilot period to develop a performance-based incentive mechanism that can be applied to the entire portfolio of DSM programs.

Enhanced Commitment to Energy Efficiency and DSM

As part of the FCA implementation process, IPC is committed to enhancing its efforts towards promoting energy efficiency in several key areas including, but not limited to:

- A broad availability of efficiency and load management programs.
- Building code improvement activity.
- Pursuit of appliance code standards.
- Expansion of DSM programs beyond peak shaving/load shifting programs.
- Third-party verification.

Throughout 2007, and increasingly during the last three quarters of the year after issuance of IPCU Order No. 30267, IPC actively pursued numerous, additional opportunities to promote energy efficiency.

Availability of Efficiency and Load Management Programs

IPC offers an array of energy efficiency and demand response programs spanning all of the major customer segments. The majority of IPC's DSM programs were available prior to implementation of the FCA. However, since implementation of the FCA, IPC has focused additional resources toward energy efficiency education and program marketing.

IPC continued to increase energy efficiency awareness among its customers through a variety of media outlets. Incremental education and outreach activities in 2007 included participation in Earth Day events, publication of a Summer Tips card on energy efficiency, conducting a Fall Energy Efficiency and Sustainability Series at the Boise Public Library, and a publication of a Holiday Purchases Energy Efficiency Tips flyer. Additionally, the publication of the Partners in Conservation Calendar provided energy efficiency information to program participants, trade allies, and IPC employees. IPC also distributed energy efficiency information via 22 media updates, 12 *Customer Connection* newsletters included in monthly bills, six radio interviews, five bill inserts, and one press release.

The promotion of energy efficient lighting received additional focus in 2007. In the fall, IPC sponsored a lighting workshop conducted by the staff of the Seattle-based Lighting Design Lab. IPC staff also conducted 17 in-store customer education outreach events to inform customers about the benefits of energy efficient lighting. Furthermore, IPC developed and implemented a communication strategy to address customer concerns about the mercury

content of CFL bulbs and to educate customers on the proper disposal of CFLs.

DSM staff provided program and general energy efficiency information to five engineering firms and two state agencies. These direct marketing efforts in 2007 within the commercial and industrial customer segments were aimed at architects and engineers to enhance their awareness of IPC's DSM programs and how energy efficiency can be incorporated into new projects.

IPC also incorporated the offerings of the IEA through NEEA to IPC food processing customers. In 2007, there were 19 facilities in the IPC service area engaged in various degrees with the IEA and the implementation of Continuous Energy Improvement practices at their facilities.

Other actions in 2007 included IPC joining the BPA-sponsored Utility Sounding Board (USB). Networking and regional coordination are benefits of participation in this group.

IPC also brought grocery refrigeration experts to Boise and put on grocery efficiency trainings and co-sponsored a BEEP workshop in September.

Building Code Improvement Activity

In 2007, the Idaho legislature adopted the IECC 2006 Energy Code, which IPC staff supported through the Idaho Building Code Coalition. The new code went into effect in January 2008.

In 2007, IPC staff met with the Boise Climate Protection Program Advisory Committee and the Caldwell Planning Department to support efforts by these groups to improve residential and commercial building codes. Both of these meetings were an opportunity to educate staff about the ENERGY STAR[®] Homes Northwest program and discuss requiring all residential

new construction in their respective jurisdictions to conform to the ENERGY STAR® Homes Northwest standard.

Pursuit of Appliance Code Standards

IPC contracted with Quantec, LLC, to conduct a study of potential savings and costs associated with enacting appliance efficiency standards in Idaho similar to those recently enacted in Oregon. The results of Quantec's assessment and recommendations will be incorporated into the 2009 Energy Plan to determine the economic viability of adopting such standards in Idaho.

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

IPC looks for opportunities to enhance or expand its DSM program offering. For example, in 2007 a new incentive-based holiday lighting program was offered to commercial customers. This program was implemented on an accelerated schedule to provide additional energy savings within the commercial customer segment in 2007 and to raise awareness of LED lighting among all customer classes. Additionally, a direct-install VendingMiser™ promotion began in 2007 and will continue in 2008. This promotion will provide small and large commercial customers with free controls to cut energy use on their refrigerated beverage vending machines. This promotion greatly increased participation and energy savings. In the first seven months of this program, IPC received 136 applications for VendingMiser™ installation, and in the last two months IPC, through its vendor, installed 83 VendingMisers™.

Late in 2007, IPC issued an RFP seeking professional services to determine potential DSM energy savings and peak load reduction within IPC's service area. Nexant, a San

Francisco-based consulting firm, was selected to conduct the DSM potential study and provide a DSM simulation model, along with DSM program recommendations that can be implemented to achieve the identified potential. This project is expected to be completed by July 31, 2008. The information provided by the potential study will serve as the basis for DSM resource options analyzed in the 2009 Energy Plan.

Third-Party Verification

IPC utilizes third-party consultants and agents whenever possible, practical, and affordable. Consultants verify the quality of work conducted, the amount of energy savings achieved, and also obtain data on energy efficiency and demand response measures and programs. The following are examples of IPC's ongoing utilization of third parties to monitor and verify its DSM program performance:

- IPC is a funder of, and participant in, the Regional Technical Forum (RTF). The RTF is an advisory committee established in 1999 to develop standards to verify and evaluate savings of energy efficiency programs and measures. IPC views the RTF as a reliable third-party source for information on programs and measures and used the RTF databases to provide deemed savings for some energy efficiency measures.
- In 2007, IPC contracted with a third-party consulting firm, Ecotope Consulting, to reevaluate the ENERGY STAR® Homes Northwest measures and savings after the new IECC 2006 building codes were implemented in Idaho. This analysis resulted in several program changes, including a revised incentive and revised assumed energy savings per home for 2008.
- The ENERGY STAR® Homes Northwest program regularly utilizes certified Home Performance Specialists for independent

third-party verification, ensuring that each ENERGY STAR[®] home is being built to ENERGY STAR[®] standards. The Idaho OER then certifies each of these homes as an ENERGY STAR[®] home.

- The Energy House Calls program contracts with a third party consultant to do quality assurance on 5% of homes serviced by the program. This consultant visits the selected sites within approximately one month of the energy house call and verifies that the energy efficiency measures provided by IPC's third-party installation contractor were performed to program specifications.
- The Heating and Cooling Efficiency program, new in 2007, has begun training a third-party consultant to verify savings on 5–10% of all projects and plans on implementing this process in 2008.

IPC's Internal Energy Efficiency Commitment

IPC's commitment towards promoting energy efficiency extends beyond encouraging, incenting, and educating its customers. In 2007, IPC committed to pilot an integrated design approach for a new operations facility to be constructed in Lake Fork, Idaho. The Long Valley Operations Center will be the first new facility built by IPC to use this process. This method of project development brings the owner, design team, contractors, and commissioning agent together at the inception of the project to take advantage of their combined expertise and maximize coordination throughout the process. Initial meetings defined IPC's goals for the project, and the goals were linked to potential LEED credits. Results support a strong case for LEED Silver certification and the potential exists for LEED Gold certification on the project.

The design team's goal is to pursue all 10 energy efficiency credits, which would make

the facility at least 42% more efficient than the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) 2003 standards. Opportunities for renewable generation and other innovative design solutions will be investigated throughout the design phase. In addition to energy efficiency, other important IPC goals are to ensure the facility fits well into the surrounding community while providing local IPC employees with a functional operations center. IPC's decision to take a leadership position in high-performance buildings and sustainable design for their own facilities demonstrates not only enhanced commitment to energy efficiency but can serve as a model for other companies.

In 2007, IPC began retrofitting its Corporate Headquarters (CHQ) with energy efficiency projects. In 2007, IPC increased the energy efficiency of the HVAC system at the CHQ by installing a new system to centrally control and better manage the system from an energy perspective. IPC also implemented nighttime lighting controls at the CHQ in order to gain efficient use of lighting electricity. IPC is systematically replacing older, inefficient lighting in its facilities with more efficient lights.

Table 15 shows IPC energy savings in 2007 as compared to both IPC operational targets as well as IRP targeted savings. The operational targets for the commercial/industrial programs were reduced from the original energy plan targets to account for the timing of new program development within the commercial sector.

Table 15. 2007 IPC DSM Program Targets and Results

	2007 IPC Operational Targets	2007 Energy Plan Targets	2007 Savings
Demand Response Programs	MW	MW	MW
Residential and Irrigation	47.8	39.4	48.2
Energy Efficiency Programs	MWh	MWh	MWh
Residential	11,231	11,230	12,441
Commercial/Industrial	21,447	24,397	37,790
Irrigation	11,940	5,200	12,304
Total	44,618	40,827	62,535

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.

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

2007 Beginning Balance	\$5,934,463.21
2007 Funding plus Accrued Interest.....	9,036,071.75
Total 2007 Funds	14,970,534.96
2007 Expense	(13,487,460.38)
2007 Year-End Balance	<u>\$1,483,074.58</u>
<hr/>	
2007 Beginning Balance	\$393,731.19
2007 Funding plus Accrued Interest.....	425,682.64
Total 2007 Funds	819,413.83
2007 Expense	(409,188.37)
2007 Year-End Balance	<u>\$410,225.46</u>
<hr/>	
Total Funding and Accrued Interest October 2001–December 2006	\$2,909,157.08
2007 Funding plus Accrued Interest.....	247,732.51
Total Funds May 2002–December 2007	3,156,889.59
Total Expense—Inception through December 2006.....	(2,909,157.08)
2007 Expense	(200,685.96)
Total BPA Funded Expenses	<u>(3,109,843.04)</u>
2007 Year-End Balance^(a)	<u>\$47,046.55</u>
<hr/>	
2007 IPC Contractual Obligation.....	\$1,300,000.00
Credit Applied to 2007 Contractual Obligation	(325,588.00)
Interest Credit Applied to 2007 Contract Obligation	(68,159.00)
Interest Credit Applied to 2008 Contract Obligation ^(b)	(14,781.00)
Total 2007 Cash Payments by IPC	<u>891,472.00</u>
Credit Balance	
Beginning Balance Funds Held by NEEA	(976,771.00)
2007 Credit Applied to Contract Obligation	325,588.00
2007 Year-End Credit Balance	<u>(\$651,183.00)</u>

(a) The 2007 balance of BPA funds was committed to two Solar 4 R Schools projects prior to the suspension of BPA funding in 2007. These projects are scheduled for completion in 2008.

(b) The first quarter invoice for the IPC 2008 contractual obligation to NEEA was processed in December 2007 with the amount scheduled to be amortized over the first quarter. Interest credit was immediately recognized in 2007.

Appendix 2. 2007 DSM Expenses by Funding Source (Dollars)

Sector/Program	Idaho Rider	Oregon Rider	BPA	IPC	Total Program
Energy Efficiency/Demand Response					
Residential					
A/C Cool Credit.....	2,421,461	0	0	4,692	\$ 2,426,154
Appliance Program	8,746	460	0	69	\$ 9,275
Energy House Calls	251,743	3,349	80,830	450	\$ 336,372
ENERGY STAR® Homes Northwest.....	451,775	12,249	0	11,020	\$ 475,044
Heating and Cooling Efficiency	482,051	3,289	0	2,871	\$ 488,211
Oregon Residential Weatherization	0	0	0	3,781	\$ 3,781
Rebate Advantage	58,854	4,609	25,073	733	\$ 89,269
ENERGY STAR® Lighting.....	519,818	11,787	15,595	10,445	\$ 557,646
WAQC.....	0	0	28,035	1,295,588	\$ 1,323,624
Commercial/Industrial					
Commercial Building Efficiency.....	661,485	5,766	0	1,781	\$ 669,032
Easy Upgrades	680,376	28,014	0	3,105	\$ 711,494
Oregon Commercial Audit.....	0	1,800	0	181	\$ 1,981
Custom Efficiency	3,032,047	110,634	0	19,185	\$ 3,161,866
Irrigation					
Irrigation Efficiency Rewards	1,881,116	93,924	0	26,922	\$ 2,001,961
Irrigation Peak Rewards.....	1,520,106	54,747	0	41,028	\$ 1,615,881
Energy Efficiency/Demand Response Total	11,969,578	330,627	149,534	1,421,852	\$13,871,592
Market Transformation					
NEEA.....	846,898	44,574	0	1,868	\$ 893,340
Market Transformation Total	846,898	44,574	0	1,868	\$ 893,340
Other Programs and Activities					
Commercial					
Commercial Education Initiative.....	25,427	1,314	0	82	\$ 26,823
Other					
BPA CRC Renewables	0	0	31,645	0	\$ 31,645
Distribution Efficiency Initiative ^(a)	6,514	343	0	2,130	\$ 8,987
DSM Direct Program Overhead	54,339	2,465	0	105	\$ 56,909
LEEF ^(b)	7,571	(50)	0	0	\$ 7,520
Other Programs and Activities Total	93,851	4,072	31,645	2,317	\$ 131,885
Indirect Program Expense					
DSM Accounting and Analysis.....	564,129	29,367	0	139,006	\$ 732,503
Energy Efficiency Advisory Group	2,488	109	0	0	\$ 2,597
Special Accounting Entries	10,516	439	19,507		\$ 30,462
Indirect Program Expense Total	577,133	29,915	19,507	139,006	\$ 765,561
Totals	\$13,487,460	\$409,188	\$200,686	\$1,565,043	\$15,662,378

^(a)IPC portion of Distribution Efficiency Initiative expenses will be reversed in 2008.

^(b)Oregon correction for 2006 entry for bulbs purchased and used in Idaho.

Appendix 3. 2007 DSM Program Activity

Program	Participants (Number) (Units)	Total Costs			Savings			Levelized Cost ^(e)	
		Utility ^(b) (dollars)	Resource ^(c) (dollars)	Annual Energy (kWh)	Summer Peak Demand ^(d) (kW)	Measure Life (Years)	Utility (\$/kWh)	Total Resource (\$/kWh)	
A/C Cool Credit	13,692 homes	\$2,426,154	\$2,199,486		10,762	N/A	N/A	N/A	
Irrigation Peak Rewards	947 service points	\$1,615,881	\$239,855		37,441	N/A	N/A	N/A	
Residential									
Appliance Program									
Energy House Calls	700 homes	\$336,372	\$336,372	699,899	20		\$0.039	\$0.039	
ENERGY STAR® Homes Northwest	303 homes	\$475,044	\$566,247	629,634	606	25	\$0.056	\$0.067	
ENERGY STAR® Lighting	219,739 CFL bulbs	\$557,646	\$668,756	7,207,439	7	7	\$0.012	\$0.015	
Heating and Cooling Efficiency	4 homes	\$488,211	\$494,989	1,595	18		N/A	N/A	
Oregon Residential Weatherization	1 homes	\$3,781	\$5,589	9,971	25		\$0.028	\$0.042	
Rebate Advantage	123 homes	\$89,269	\$182,152	554,018	45		\$0.010	\$0.021	
WAQC—ID	397 homes	\$1,290,016	\$1,754,191	3,296,019	25		\$0.029	\$0.040	
WAQC—OR	11 projects	\$33,607	\$44,613	42,108	25		\$0.059	\$0.079	
Commercial									
Building Efficiency ⁽¹⁾	22 projects	\$669,032	\$829,600	2,817,248	454	12	\$0.026	\$0.032	
Easy Upgrades	104 projects	\$711,494	\$1,882,035	5,183,640	780	12	\$0.015	\$0.040	
Oregon Commercial Audits	8 audits	\$1,981	\$1,981	0	N/A		N/A	N/A	
Industrial									
Custom Efficiency	49 projects	\$3,161,866	\$7,012,686	29,789,304	3,622	12	\$0.012	\$0.026	
Irrigation									
Irrigation Efficiency Rewards ⁽²⁾	819 projects	\$2,001,961	\$8,694,772	12,304,073	3,407	8	\$0.024	\$0.103	

Appendix 3. 2007 DSM Program Activity (continued)

Program	Total Costs			Savings		Levelized Cost ^(a)		
	Participants (Number) (Units)	Utility ^(b) (dollars)	Resource ^(c) (dollars)	Annual Energy (kWh)	Summer Peak Demand ^(d) (kW)	Measure Life (Years)	Utility (\$/kWh)	Total Resource (\$/kWh)
NEEA ⁽³⁾		\$893,340	\$893,340	28,601,410				
Residential								
Residential Education Initiative ⁽⁴⁾								
Commercial								
Commercial Education Initiative		\$26,823	\$26,823					
Other								
BPA Other C&RD and CRC		\$31,645	\$31,645					
Distribution Efficiency Initiative		\$8,987	\$8,987					
DSM Direct Program Overhead		\$56,909	\$56,909					
Local Energy Efficiency Funds	1 projects	\$7,520.00	\$7,520.00	9,000	7		\$0.135	\$0.135
Total Program Direct Expense		\$14,896,817	\$25,938,560	91,145,356	57,072			
Indirect Program Expense		\$765,561						
Total DSM Expense		\$15,662,378						

(a) Levelized Costs are based on financial inputs from IPC's 2006 Integrated Resource Plan and calculations include line losses.

(b) The Total Utility Cost is all cost incurred by IPC to implement a DSM program.

(c) The Total Resource Cost is the total expenditure for a program from the point of view of IPC and its customers as a whole.

(d) Summer Peak Demand is reported where program kW reduction is documented.

(1) Participant costs used to estimate Total Resource cost is estimated at 24% of Utility cost.

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

(3) The kWh savings are preliminary estimates from NEEA. Total Resource costs include only Utility cost, which understates the actual total.

(4) Residential Education Initiative expenses in 2007 were allocated among all residential groups.

Appendix 4. 5-Year DSM Expense and Performance 2003–2007

Program/Year	Total Costs			Savings			Nominal Levelized Costs ^(a)	
	Participants ^(b) (Number)	Utility ^(c) (dollars)	Resource ^(d) (dollars)	Annual Energy (kWh)	Average Demand ^(e) (skW)	Peak Demand ^(f) (kW)	Total Utility (\$/kWh)	Total Resource (\$/kWh)
A/C Cool Credit								
2003	204	\$275,645	\$269,680			159		
2004	420	\$287,253	\$274,686			402		
2005	2,369	\$754,062	\$717,902			2,748		
2006	5,369	\$1,235,476	\$1,131,439			5,637		
2007	13,692	\$2,426,154	\$2,199,486			10,762		
Total	N/A	\$4,978,589	\$4,593,193			N/A		
Irrigation Peak Rewards								
2004	58	\$344,714	\$185,006			5,597		(1)
2005	894	\$1,466,282	\$479,484			40,323		(2)
2006	906	\$1,324,418	\$239,977			31,836		(3)
2007	947	\$1,615,881	\$239,855			37,441		(3)
Total	N/A	\$4,753,295	\$1,144,322			N/A		

(a) Nominal levelized costs are based on financial inputs from IPC's 2006 integrated resource plan and calculations include line losses.
 (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) The Total Utility cost is all cost incurred by IPC to implement a DSM program.
 (d) The Total Resource cost is the total expenditure for a program from the point of view of IPC and its customers as a whole.
 (e) Average Demand = Annual Energy / 8,760 annual hours, excluding irrigation demand reduction.
 (f) Summer Peak Demand is reported where program kW reduction is documented. Reduction of kW from demand response is not additive.
 (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) Maximum summer peak kW achieved.

Appendix 4. 5-Year DSM Expense and Performance 2003-2007 (continued)

Program/Year	Total Costs			Savings			Nominal Levelized Costs ^(a)		
	Participants ^(b) (Number)	Utility ^(c) (dollars)	Resource ^(d) (dollars)	Annual Energy (kWh)	Average Demand ^(e) (kW)	Peak Demand ^(f) (kW)	Measure Life (Years)	Total Utility (\$/kWh)	Total Resource (\$/kWh)
Appliance Program									
2007		\$9,275							
Total		\$9,275							
Energy House Calls									
2003	420	\$167,076	\$167,076	602,723	69		20	\$0.023	\$0.023 ⁽⁴⁾
2004	1,708	\$725,981	\$725,981	2,349,783	268		20	\$0.025	\$0.025 ⁽⁵⁾
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
2007	700	\$336,372	\$336,372	699,899	80		20	\$0.039	\$0.039
Total	4,538	\$1,941,740	\$1,941,740	6,205,419	708		20	\$0.026	\$0.026

- (a) Nominal levelized costs are based on financial inputs from IPC's 2006 integrated resource plan and calculations include line losses.
- (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) The Total Utility cost is all cost incurred by IPC to implement a DSM program.
- (d) The Total Resource cost is the total expenditure for a program from the point of view of IPC and its customers as a whole.
- (e) Average Demand = Annual Energy / 8,760 annual hours, excluding irrigation demand reduction.
- (f) Summer Peak Demand is reported where program kW reduction is documented. Reduction of kW from demand response is not additive.
- (4) Utility cost restated from \$163,653 in prior historical reporting.
- (5) Utility cost restated from \$725,732 in prior historical reporting.

Appendix 4. 5-Year DSM Expense and Performance 2003-2007 (continued)

Program/Year	Total Costs				Savings			Nominal Levelized Costs ^(a)	
	Participants ^(b) (Number)	Utility ^(c) (dollars)	Resource ^(d) (dollars)	Annual Energy (kWh)	Average Demand ^(e) (kW)	Peak Demand ^(f) (kW)	Measure Life (Years)	Total Utility (\$/kWh)	Total Resource (\$/kWh)
2003	0	\$13,597	\$13,597		0				
2004	44	\$140,165	\$335,437	101,200	12	88	25	\$0.103	\$0.246 ⁽⁶⁾
2005	200	\$253,105	\$315,311	415,600	47	400	25	\$0.045	\$0.056 ⁽⁷⁾
2006	439	\$469,609	\$602,651	912,242	104	878	25	\$0.038	\$0.049 ⁽⁸⁾
2007	303	\$475,044	\$566,247	629,634	72	606	25	\$0.056	\$0.067
Total	986	\$1,351,520	\$1,833,243	2,058,676	235	1,972	25	\$0.049	\$0.066

ENERGY STAR[®] Homes Northwest

- (a) Nominal levelized costs are based on financial inputs from IPC's 2006 integrated resource plan and calculations include line losses.
- (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) The Total Utility cost is all cost incurred by IPC to implement a DSM program.
- (d) The Total Resource cost is the total expenditure for a program from the point of view of IPC and its customers as a whole.
- (e) Average Demand = Annual Energy / 8,760 annual hours, excluding irrigation demand reduction.
- (f) Summer Peak Demand is reported where program kW reduction is documented. Reduction of kW from demand response is not additive.
- (6) Energy savings based on NEEA standardized per home kWh savings.
- (7) Revised number of homes reported certified to 200 from 203 to align with incentives realized, adjusted.
- (8) Utility costs and Total Resource costs are overstated by \$1,500 due to payment errors; savings and levelized cost have been adjusted to reflect certified homes only.

Appendix 4. 5-Year DSM Expense and Performance 2003-2007 (continued)

Program/Year	Participants ^(b) (Number)	Total Costs			Savings			Nominal Levelized Costs ^(a)	
		Utility ^(c) (dollars)	Resource ^(d) (dollars)	Annual Energy (kWh)	Average Demand ^(e) (kW)	Peak Demand ^(f) (kW)	Measure Life (Years)	Total Utility (\$/kWh)	Total Resource (\$/kWh)
Oregon Weatherization (Schedule 78)									
2003	0	\$(943)			0				(9)
2004	4	\$1,057	\$1,057	0	0				
2005	4	\$612	\$3,608	7,927	1	25	\$0.006	\$0.034	(10)
2006	0	\$4,126	\$4,126		0				
2007	1	\$3,781	\$5,589	9,971	1	25	\$0.028	\$0.042	
Total	9	\$8,634	\$14,380	17,898	2	25	\$0.036	\$0.060	(11)
Rebate Advantage									
2003	73	\$27,372	\$78,389	227,434	26	45	\$0.008	\$0.022	(12)
2004	105	\$52,187	\$178,712	332,587	38	45	\$0.010	\$0.034	
2005	98	\$48,173	\$158,462	312,311	36	45	\$0.009	\$0.032	
2006	102	\$52,673	\$140,289	333,494	38	45	\$0.010	\$0.027	
2007	123	\$89,289	\$182,152	554,018	63	45	\$0.010	\$0.021	
Total	501	\$267,675	\$739,014	1,759,844	201	45	\$0.010	\$0.027	

(a) Nominal levelized costs are based on financial inputs from IPC's 2006 integrated resource plan and calculations include line losses.

(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) The Total Utility cost is all cost incurred by IPC to implement a DSM program.

(d) The Total Resource cost is the total expenditure for a program from the point of view of IPC and its customers as a whole.

(e) Average Demand = Annual Energy / 8,760 annual hours, excluding irrigation demand reduction.

(f) Summer Peak Demand is reported where program kW reduction is documented. Reduction of kW from demand response is not additive.

(g) Utility cost reflects collected funds on previous bad loan writeoffs.

(h) Utility cost reflects only audit and administration costs; there was no further activity in 2006.

(i) Levelized cost calculation includes bad loan writeoff expense and funds collected from loans previously written off.

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

Appendix 4. 5-Year DSM Expense and Performance 2003-2007 (continued)

Program/Year	Total Costs				Savings			Nominal Levelized Costs ^(a)	
	Participants ^(b) (Number)	Utility ^(c) (dollars)	Resource ^(d) (dollars)	Annual Energy (kWh)	Average Demand ^(e) (akW)	Peak Demand ^(f) (kW)	Measure Life (Years)	Total Utility (\$/kWh)	Total Resource (\$/kWh)
Heating and Cooling Efficiency									
2006		\$17,444	\$17,444		0				
2007	4	\$488,211	\$494,989	1,595	0		18		
Total	4	\$505,656	\$512,433	1,595			18		
ENERGY STAR® Lighting									
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	0	7	\$0.007	\$0.010 ⁽¹³⁾
2006	178,514	\$298,754	\$539,877	6,302,794	719		7	\$0.008	\$0.014
2007	219,739	\$557,646	\$668,756	7,207,439	823		7	\$0.012	\$0.015
Total	454,676	\$1,244,193	\$1,780,501	18,841,029	2,151		7	\$0.011	\$0.015
Window A/C Trade-up Pilot									
2003	99	\$6,687	\$10,492	14,454	2	12	12	\$0.051	\$0.079
Total	99	\$6,687	\$10,492	14,454	2	12	12	\$0.051	\$0.079

(a) Nominal levelized costs are based on financial inputs from IPC's 2006 integrated resource plan and calculations include line losses.
 (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) The Total Utility cost is all cost incurred by IPC to implement a DSM program.
 (d) The Total Resource cost is the total expenditure for a program from the point of view of IPC and its customers as a whole.
 (e) Average Demand = Annual Energy / 8,760 annual hours, excluding irrigation demand reduction.
 (f) Summer Peak Demand is reported where program kW reduction is documented. Reduction of kW from demand response is not additive.
 (13) Energy savings adjusted for actual sales of 65,430 bulbs from 35,008, with measure life revised to 7 from 9 years.

Appendix 4. 5-Year DSM Expense and Performance 2003-2007 (continued)

Program/Year	Total Costs				Savings			Nominal Levelized Costs(e)	
	Participants(b) (Number)	Utility(c) (dollars)	Resource(d) (dollars)	Annual Energy (kWh)	Average Demand(e) (kW)	Peak Demand(f) (kW)	Measure Life (Years)	Total Utility (\$/kWh)	Total Resource (\$/kWh)
WAQC—ID									
2003	208	\$228,134	\$483,369		0				
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 (14)
2006	540	\$1,455,373	\$2,231,086	2,958,024	338		25	\$0.037	\$0.056
2007	397	\$1,290,016	\$1,754,191	3,296,019	376		25	\$0.029	\$0.040
Total	1,984	\$4,874,484	\$7,255,552	10,705,031	1,222		25	\$0.034	\$0.050
WAQC—OR									
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 (15)
2006	0	N/A	N/A	N/A	N/A		N/A	N/A	N/A
2007	11	\$33,607	\$44,613	42,108	5		25	\$0.059	\$0.079
Total	85	\$110,766	\$168,930	267,466	31		25	\$0.031	\$0.047

(a) Nominal levelized costs are based on financial inputs from IPC's 2006 integrated resource plan and calculations include line losses.

(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) The Total Utility cost is all cost incurred by IPC to implement a DSM program.

(d) The Total Resource cost is the total expenditure for a program from the point of view of IPC and its customers as a whole.

(e) Average Demand = Annual Energy / 8,760 annual hours, excluding irrigation demand reduction.

(f) Summer Peak Demand is reported where program kW reduction is documented. Reduction of kW from demand response is not additive.

(14) Total Resource Costs restated in 2005 to include federal funding administered by CAP agencies; 2003 savings not reported due to integration of fuel types.

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

Appendix 4. 5-Year DSM Expense and Performance 2003-2007 (continued)

Program/Year	Total Costs				Savings			Nominal Levelized Costs ^(a)	
	Participants ^(b) (Number)	Utility ^(c) (dollars)	Resource ^(d) (dollars)	Annual Energy (kWh)	Average Demand ^(e) (kW)	Peak Demand ^(f) (kW)	Measure Life (Years)	Total Utility (\$/kWh)	Total Resource (\$/kWh)
WAQC—BPA Supplemental									
2003	57	\$49,895	\$106,915	223,591	26		25	\$0.017	\$0.036
2004	40	\$49,885	\$105,021	125,919	14		25	\$0.041	\$0.062
Total	97	\$99,781	\$211,936	349,510	40		25	\$0.021	\$0.045
Air Care Plus Pilot									
2003	4	\$5,764	\$9,061	33,976	4		10	\$0.021	\$0.033
2004	0	\$344	\$344						
Total	4	\$6,108	\$9,405	33,976	4		10	\$0.022	\$0.034
Building Efficiency Program									
2004	0	\$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
2007	22	\$669,032	\$829,600	2,817,248	322	454	12	\$0.026	\$0.032
Total	74	\$1,265,928	\$1,555,341	4,016,028	458	954	12	\$0.034	\$0.042

- (a) Nominal levelized costs are based on financial inputs from IPC's 2006 integrated resource plan and calculations include line losses.
- (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) The Total Utility cost is all cost incurred by IPC to implement a DSM program.
- (d) The Total Resource cost is the total expenditure for a program from the point of view of IPC and its customers as a whole.
- (e) Average Demand = Annual Energy / 8,760 annual hours, excluding irrigation demand reduction.
- (f) Summer Peak Demand is reported where program kW reduction is documented. Reduction of kW from demand response is not additive.

Appendix 4. 5-Year DSM Expense and Performance 2003-2007 (continued)

Program/Year	Participants ^(b) (Number)	Total Costs			Savings			Nominal Levelized Costs ^(a)	
		Utility ^(c) (dollars)	Resource ^(d) (dollars)	Annual Energy (kWh)	Average Demand ^(e) (kW)	Peak Demand ^(f) (kW)	Measure Life (Years)	Total Utility (\$/kWh)	Total Resource (\$/kWh)
Easy Upgrades									
2006		\$31,819	\$31,819						
2007	104	\$711,494	\$1,882,035	5,183,640	592	780	12	\$0.015	\$0.040
Total	104	\$743,313	\$1,913,854	5,183,640	592	780	12	\$0.015	\$0.040
Oregon Commercial Audits (Schedule 82)									
2003	21		\$4,000						
2004	7								
2005	7	\$5,450							
2006	6								
2007	8	\$1,981	\$1,981						
Total	49	\$7,431	\$11,431						

(16)

- (a) Nominal levelized costs are based on financial inputs from IPC's 2006 integrated resource plan and calculations include line losses.
- (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) The Total Utility cost is all cost incurred by IPC to implement a DSM program.
- (d) The Total Resource cost is the total expenditure for a program from the point of view of IPC and its customers as a whole.
- (e) Average Demand = Annual Energy / 8,760 annual hours, excluding irrigation demand reduction.
- (f) Summer Peak Demand is reported where program kW reduction is documented. Reduction of kW from demand response is not additive.
- (16) This is an Oregon statutory program. The company does not monitor customer implementation of audit recommendations and thus does not estimate savings for this program. Audit expense not involving outside contractor services are booked to general customer service. Six customer service audits were completed in 2006.

Appendix 4. 5-Year DSM Expense and Performance 2003-2007 (continued)

Program/Year	Total Costs			Savings			Nominal Levelized Costs(a)		
	Participants(b) (Number)	Utility(c) (dollars)	Resource(d) (dollars)	Annual Energy (kWh)	Average Demand(e) (kW)	Peak Demand(f) (kW)	Measure Life (Years)	Total Utility (\$/kWh)	Total Resource (\$/kWh)
Oregon School Efficiency									
2005	0	\$86	\$86						
2006	6	\$24,379	\$89,771	223,368	25		12	\$0.012	\$0.044
Total	6	\$24,465	\$89,858	223,368	25		12	\$0.012	\$0.044
Custom Efficiency									
2003		\$1,303	\$1,303		0				
2004	1	\$112,311	\$133,441	211,295	24		12	\$0.058	\$0.069
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
2007	49	\$3,161,866	\$7,012,686	29,789,304	3,401	3,622	12	\$0.012	\$0.026
Total	114	\$6,028,771	\$15,074,467	61,228,882	6,990	3,622	12	\$0.011	\$0.027

(a) Nominal levelized costs are based on financial inputs from IPC's 2006 integrated resource plan and calculations include line losses.
 (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) The Total Utility cost is all cost incurred by IPC to implement a DSM program.
 (d) The Total Resource cost is the total expenditure for a program from the point of view of IPC and its customers as a whole.
 (e) Average Demand = Annual Energy / 8,760 annual hours, excluding irrigation demand reduction.
 (f) Summer Peak Demand is reported where program kW reduction is documented. Reduction of kW from demand response is not additive.
 (17) Energy incentives of \$6,674 were paid for this program under the Easy Upgrades program.
 (18) Originally reported expense and energy included accrued amounts, restated here to align with accounting records.

Appendix 4. 5-Year DSM Expense and Performance 2003-2007 (continued)

Program/Year	Participants ^(b) (Number)	Total Costs			Savings			Nominal Levelized Costs ^(a)		
		Utility ^(c) (dollars)	Resource ^(d) (dollars)	Annual Energy (kWh)	Average Demand ^(e) (kW)	Peak Demand ^(f) (kW)	Measure Life (Years)	Total Utility (\$/kWh)	Total Resource (\$/kWh)	
Irigation Efficiency Program										
2003	2	\$41,089	\$54,609	36,792	18	15	\$0.106	\$0.141	(19)	
2004	33	\$120,808	\$402,978	802,812	449	15	\$0.014	\$0.048	(20)	
2005	38	\$150,577	\$657,460	1,012,883	401	15	\$0.014	\$0.062	(21)	
2006	559	\$2,779,620	\$8,514,231	16,986,008	1,939	8	\$0.024	\$0.073	(21)	
2007	816	\$2,001,961	\$8,694,772	12,304,073	1,405	8	\$0.024	\$0.103		
Total	1,448	\$5,094,055	\$18,324,050	31,142,568	3,344	8	\$0.024	\$0.086		
Building Operator Training										
2003	71	\$48,853	\$48,853	1,825,000	208	5	\$0.006	\$0.006	(22)	
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		
Total	104	\$94,572	\$97,302	2,909,167	332	5	\$0.007	\$0.007		

(a) Nominal levelized costs are based on financial inputs from IPC's 2006 integrated resource plan and calculations include line losses.
 (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) The Total Utility cost is all cost incurred by IPC to implement a DSM program.
 (d) The Total Resource cost is the total expenditure for a program from the point of view of IPC and its customers as a whole.
 (e) Average Demand = Annual Energy / 8,760 annual hours, excluding irrigation demand reduction.
 (f) Summer Peak Demand is reported where program kW reduction is documented. Reduction of kW from demand response is not additive.
 (19) Restated from \$11,190.
 (20) Originally reported expense and energy included accrued amounts, restated here to align with accounting records.
 (21) Measure Life is weighted life (based on energy savings) of custom option (15 years) and menu options (5 years).
 (22) Originally reported expense and energy included accrued amounts; 2003 restated from \$36,084, 2004 restated from \$48,853.

Appendix 4. 5-Year DSM Expense and Performance 2003-2007 (continued)

Program/Year	Total Costs			Savings			Nominal Levelized Costs ^(a)		
	Participants ^(b) (Number)	Utility ^(c) (dollars)	Resource ^(d) (dollars)	Annual Energy (kWh)	Average Demand ^(e) (akW)	Peak Demand ^(f) (kW)	Measure Life (Years)	Total Utility (\$/kWh)	Total Resource (\$/kWh)
Commercial Education Initiative									
2005		\$3,497	\$3,497						
2006		\$4,663	\$4,663						
2007		\$26,823	\$26,823						
Total	0	\$34,983	\$34,983						
Distribution Efficiency Initiative									
2005		\$21,552	\$43,969						
2006		\$24,306	\$24,306						
Total	0	\$45,858	\$68,275						
DSM Direct Program Overhead									
2007		\$56,909							
Total	0	\$56,909							

(a) Nominal levelized costs are based on financial inputs from IPC's 2006 integrated resource plan and calculations include line losses.
 (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) The Total Utility cost is all cost incurred by IPC to implement a DSM program.
 (d) The Total Resource cost is the total expenditure for a program from the point of view of IPC and its customers as a whole.
 (e) Average Demand = Annual Energy / 8,760 annual hours, excluding irrigation demand reduction.
 (f) Summer Peak Demand is reported where program kW reduction is documented. Reduction of kW from demand response is not additive.

Appendix 4. 5-Year DSM Expense and Performance 2003-2007 (continued)

Program/Year	Total Costs			Savings			Nominal Levelized Costs ^(a)		
	Participants ^(b) (Number)	Utility ^(c) (dollars)	Resource ^(d) (dollars)	Annual Energy (kWh)	Average Demand ^(e) (kW)	Peak Demand ^(f) (kW)	Measure Life (Years)	Total Utility (\$/kWh)	Total Resource (\$/kWh)
Other C&RD and CRC									
BPA									
	2003	\$67,012	\$67,012						
	2004	\$108,191	\$108,191						
	2005	\$101,177	\$101,177						
	2006	\$124,956	\$124,956						
	2007	\$31,645	\$31,645						
	Total	\$432,981	\$432,981						
Residential Education Initiative									
	2005	\$7,498	\$7,498						
	2006	\$56,727	\$56,727						
	Total	\$64,225	\$64,255						

(a) Nominal levelized costs are based on financial inputs from IPC's 2006 integrated resource plan and calculations include line losses.
 (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) The Total Utility cost is all cost incurred by IPC to implement a DSM program.
 (d) The Total Resource cost is the total expenditure for a program from the point of view of IPC and its customers as a whole.
 (e) Average Demand = Annual Energy / 8,760 annual hours, excluding irrigation demand reduction.
 (f) Summer Peak Demand is reported where program kW reduction is documented. Reduction of kW from demand response is not additive.

Appendix 4. 5-Year DSM Expense and Performance 2003-2007 (continued)

Program/Year	Participants ^(b) (Number)	Total Costs			Savings			Nominal Levelized Costs ^(a)	
		Utility ^(c) (dollars)	Resource ^(d) (dollars)	Annual Energy (kWh)	Average Demand ^(e) (kW)	Peak Demand ^(f) (kW)	Measure Life (Years)	Total Utility (\$/kWh)	Total Resource (\$/kWh)
2003	56	\$5,100	\$5,100						
2004	0	\$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	
2007	1	\$7,520	\$7,520	9,000	1	7	\$0.135	\$0.135	
Total	539	\$54,424	\$66,284	106,027	12	9	\$0.066	\$0.081	(23)

(a) Nominal levelized costs are based on financial inputs from IPC's 2006 integrated resource plan and calculations include line losses.

(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) The Total Utility cost is all cost incurred by IPC to implement a DSM program.

(d) The Total Resource cost is the total expenditure for a program from the point of view of IPC and its customers as a whole.

(e) Average Demand = Annual Energy / 8,760 annual hours, excluding irrigation demand reduction.

(f) Summer Peak Demand is reported where program kW reduction is documented. Reduction of kW from demand response is not additive.

(23) Residential Education Initiative costs were allocated among all residential energy efficiency programs for 2007.

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

Appendix 4. 5-Year DSM Expense and Performance 2003-2007 (continued)

Program/Year	Total Costs			Savings			Nominal Levelized Costs ^(a)		
	Participants ^(b) (Number)	Utility ^(c) (dollars)	Resource ^(d) (dollars)	Annual Energy (kWh)	Average Demand ^(e) (kW)	Peak Demand ^(f) (kW)	Measure Life (Years)	Total Utility (\$/kWh)	Total Resource (\$/kWh)
NEEA									
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				(25)
2006		\$930,455	\$930,455	22,337,477	2,550				(26)
2007		\$893,340	\$893,340	28,601,410	3,265				(26)
Total	0	\$4,850,044	\$4,850,044	92,832,174	10,597				
Direct Programs									
2003	0	\$2,566,229	\$3,119,609	18,712,919	2,132	189			
2004		\$3,807,688	\$4,688,637	19,419,605	2,125	6,536			
2005		\$6,523,349	\$9,388,620	37,853,046	4,205	44,034			
2006		\$11,174,181	\$19,761,633	70,765,825	8,078	43,790			
2007		\$14,896,816	\$25,938,550	91,143,761	10,404	57,072			
Total Direct Program	0	\$38,968,263	\$62,867,049	237,895,156	27,157	151,621			

(a) Nominal levelized costs are based on financial inputs from IPC's 2006 integrated resource plan and calculations include line losses.
 (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) The Total Utility cost is all cost incurred by IPC to implement a DSM program.
 (d) The Total Resource cost is the total expenditure for a program from the point of view of IPC and its customers as a whole.
 (e) Average Demand = Annual Energy / 8,760 annual hours, excluding irrigation demand reduction.
 (f) Summer Peak Demand is reported where program kW reduction is documented. Reduction of kW from demand response is not additive.
 (25) Energy is restated from 2005 estimate of 20,053,756 kWh.
 (26) Energy is a preliminary estimate.

Appendix 4. 5-Year DSM Expense and Performance 2003-2007 (continued)

Program/Year	Total Costs			Savings			Nominal Levelized Costs ^(a)		
	Participants ^(b) (Number)	Utility ^(c) (dollars)	Resource ^(d) (dollars)	Annual Energy (kWh)	Average Demand ^(e) (akW)	Peak Demand ^(f) (kW)	Measure Life (Years)	Total Utility (\$/kWh)	Total Resource (\$/kWh)
DSM Overhead and Other Indirect									
2003		\$78,526							(27)
2004		\$148,610							(27)
2005		\$177,624							
2006		\$309,832							
2007		\$765,561							
Total	0	\$1,480,153							
2003		\$2,644,755							
2004		\$3,956,299							
2005		\$6,700,973							
2006		\$11,484,013							
2007		\$15,662,378							
Total 2003-2007		\$40,448,416							

- (a) Nominal levelized costs are based on financial inputs from IPC's 2006 integrated resource plan and calculations include line losses.
- (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) The Total Utility cost is all cost incurred by IPC to implement a DSM program.
- (d) The Total Resource cost is the total expenditure for a program from the point of view of IPC and its customers as a whole.
- (e) Average Demand = Annual Energy / 8,760 annual hours, excluding irrigation demand reduction.
- (f) Summer Peak Demand is reported where program kW reduction is documented. Reduction of kW from demand response is not additive.
- (27) Analysis and indirect expenses were not segregated in the accounting for this reporting period.