

Report to Legislative Assembly on Public Purpose Expenditures

Final Report

December 26, 2006

ECONorthwest

ECONOMICS • FINANCE • PLANNING

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Acknowledgements

This report was prepared by ECONorthwest's Portland office in response to ORS 757.617(1)(a) that requires documentation of Public Purpose Charge (PPC) receipts and expenditures as part of SB 1149. ECONorthwest was selected to conduct this review under a competitive bid administered jointly by the Oregon Department of Energy and the Oregon Public Utility Commission. Dr. Stephen Grover was the project manager for the analysis and questions regarding the report should be directed to him by e-mail at grover@portland.econnw.com or by phone at (503) 222-6060. John Boroski and Jessica Brown of ECONorthwest also assisted with this analysis and report.

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EXECUTIVE SUMMARY

INTRODUCTION

In July 1999, Senate Bill 1149 (SB 1149) was enacted to introduce competition into Oregon's electricity markets within the Portland General Electric (PGE) and PacifiCorp service territories¹. As part of SB 1149, these utilities were required to reserve 3 percent of their retail electricity sales beginning in March 2002. This public purpose charge is used to fund energy conservation and renewable energy programs and to help provide weatherization and other energy assistance to low-income households and public schools in Oregon.

Oregon has a 30-year history of using ratepayer funding for conservation and renewable programs prior to SB 1149. In the prior system, ratepayer funds were used directly by utilities to provide incentives for conservation and renewable technologies. With the current system under SB 1149, programs are still funded by ratepayers (through the public purpose charge) but responsibility for running these programs has been removed from the utilities and given to several different agencies:

- **Energy Trust of Oregon, Inc.** The non-profit Energy Trust began administering funds in March 2002 and seeks to develop and implement programs that promote energy conservation and development of renewable energy resources within Oregon. The Energy Trust receives 73.8 percent of the available public purpose charge funds; 56.7 percent is dedicated to conservation programs and 17.1 percent is dedicated for renewable energy projects.
- **Education Service Districts.** Oregon's Education Service Districts receive 10 percent of public purpose charge funds to improve energy efficiency and purchase renewable energy in individual schools.
- **Oregon Housing and Community Services.** Oregon Housing and Community Services (OHCS) receives and administers public purpose charge funds for low-income housing programs. 4.5 percent of the public purpose charge funds are dedicated to low-income housing development projects; these projects involve construction of new housing or rehabilitation of existing housing for low-income families through the OHCS Housing Trust Fund. OHCS operates two weatherization programs, and an additional 11.7 percent of total purpose charge funds collected is allocated for low-income weatherization. One program provides home weatherization (for single- and multi-family, owner occupied, and rental housing) and the other provides for weatherization of affordable multi-family rental housing through the OHCS Housing Division.

In addition to projects conducted by these agencies, large commercial and industrial customers can implement their own energy conservation or renewable energy projects. These "self-direct" customers can then deduct the cost of projects from the conservation and renewable resource development portion of their public purpose charge obligation to utilities.

¹ SB 1149 is codified in ORS 757.600, et. seq. ORS 757.612 specifically addresses the public purpose charge.

In April 2006, ECONorthwest was hired by the Oregon Department of Energy and the Oregon Public Utility Commission to prepare a report to the Oregon Legislature documenting PPC receipts and expenditures in compliance with ORS 757.617(1)(a). Specifically, ECONorthwest

- Documented PPC disbursements to each agency by PGE and PacifiCorp;
- Demonstrated how each agency utilized funds;
- Summarized important project accomplishments; and
- Documented administrative costs using a common cost definition across agencies.

This report does not attempt to evaluate how well the various PPC programs are being implemented, nor have we attempted to independently verify the energy savings accomplishments reported by the PPC fund administrators. These issues are usually addressed through formal program evaluations such as those currently being performed by the Energy Trust of Oregon for its programs.

RECEIPT AND EXPENDITURE SUMMARY

The following table shows PPC fund disbursements to the various administrators and programs for the January 1, 2005 – June 30, 2006 period. The far right column of the table shows the level of expenditure for these funds over the same period, and shows that expenditures were generally equal to disbursements for most programs. As shown at the bottom of the table, PPC expenditures totaled \$94,272,090 across all fund administrators. Administrative costs for agencies administering the PPC funds totaled \$5,675,130, or 6.0 percent of all expenditures during this period.

PPC Disbursements and Expenditures (1/2005 – 6/2006)

Fund Administrator / Program	Disbursement Source			Expenditure
	PGE	PacifiCorp	Total	Total
Energy Trust of Oregon				
Conservation	\$32,986,183	\$21,339,284	\$54,325,467	\$57,111,128
Renewable Energy	\$9,963,492	\$6,455,669	\$16,419,161	\$3,405,917
Administrative Expenses				\$4,657,352
Education Service Districts*	\$6,169,741	\$3,695,321	\$9,865,062	\$10,461,195
ODOE Program Expenses				\$272,265
Administrative Expenses				\$426,562
Oregon Housing and Community Services				
Low-Income Weatherization**	\$7,168,965	\$4,348,348	\$11,517,313	\$9,177,984
Low-Income Housing	\$2,933,439	\$1,672,517	\$4,605,956	\$4,798,758
Administrative Expenses				\$576,133
Evaluation, Training, Technical Assistance				\$409,780
Self-Direct Customers***				
Conservation	\$1,929,747	\$191,357	\$2,121,104	\$2,121,104
Renewable Energy	\$626,113	\$171,137	\$797,250	\$797,250
ODOE Program Expenses				\$41,578
Administrative Expenses				\$15,083
Totals	\$61,777,680	\$37,873,633	\$99,651,313	\$94,272,090
Administrative Costs Only				\$5,675,130

* ESD receipts currently exceed disbursements reported by PGE by \$90.

**Low-Income Weatherization includes the ECHO program and the Low-Income Weatherization Program (for multi-family rental housing.)

***The amounts listed for Self-Direct represent public purpose charges retained by the participating sites in lieu of making payments to the utilities, which are then distributed among the other agencies (e.g., Energy Trust)

The following table summarizes the expenditures and results for PPC expenditures from January 2005 through June 2006. The agencies spent a combined total of \$94,272,090 on programs and projects completed during this period. Annual energy savings and renewable resource generation achieved from projects completed during this time reached 709,617,461 kWh (81 aMW), which is enough to power more than 62,000 average-sized homes each year.² When all fuel types are

² Calculated using ODOE's estimate that an average megawatt is enough to power about 775 homes each year (assuming electric heat).

included in addition to electricity, PPC expenditures resulted in annual savings of 2,459,898 million Btu.

Summary of PPC Expenditures and Results (1/2005 – 6/2006)

Agency / Program	Expenditures	Results		
		kWh Saved or Generated	aMW	MMBtu
Energy Trust – Conservation	\$61,170,496	391,362,959	44.68	1,335,722
Energy Trust – Renewables*	4,003,901	126,700,320	14.46	432,428
Education Service Districts**	\$11,160,022	7,621,345	0.87	63,985
OHCS Low-Income***	\$14,962,655	13,524,268	1.54	46,158
Self-Direct Customers****	\$2,975,015	170,408,569	19.45	581,604
Total Expenditures	\$94,272,090	709,617,461	81.01	2,459,898

* Energy saved includes savings from reduced transmission and distribution losses. Renewable energy savings is from currently operational projects.

** MMBtu includes natural gas, propane and oil savings, in addition to electricity savings.

***Expenditures for the OHCS Low-Income program include expenditures from the Housing Trust Fund, which does not track energy savings for its projects.

****Expenditures listed for Self-Direct represent public purpose charges retained by the participating sites in lieu of making payments to the utilities, which are then distributed among the other agencies (e.g., Energy Trust)

1. PUBLIC PURPOSE CHARGE (PPC) OVERVIEW

INTRODUCTION

In July 1999, Senate Bill 1149 (SB 1149) was enacted to introduce competition into Oregon's electricity markets within the Portland General Electric (PGE) and PacifiCorp service territories³. As part of SB 1149, these utilities were required to reserve 3 percent of their retail electricity sales beginning in March 2002. This public purpose charge is used to fund energy conservation and renewable energy programs and to help provide weatherization and other energy assistance to low-income households and public schools in Oregon.

In April 2006, ECONorthwest was hired by the Oregon Department of Energy and the Oregon Public Utility Commission to prepare a report to the Oregon Legislature documenting PPC receipts and expenditures in compliance with ORS 757.617(1)(a). Specifically, ECONorthwest

- Documented PPC disbursements to each agency by PGE and PacifiCorp;
- Demonstrated how each agency utilized funds;
- Summarized important project accomplishments; and
- Documented administration costs using a common cost definition across PPC administrators.

The remainder of this section provides an overview of the total PPC funds collected and disbursed from January 2005 through June 2006. Additional detail on how each organization utilized funds is provided in subsequent sections.

PPC FUND DISTRIBUTION

The PPC funds are collected and distributed across several organizations for administration of energy conservation and renewable energy programs:

- **Energy Trust of Oregon, Inc.** The non-profit Energy Trust began administering funds in March 2002; the Energy Trust seeks to develop and implement programs that promote energy conservation and development of renewable energy resources within the State. The Energy Trust receives 73 percent of the available PPC funds (56 percent dedicated to conservation programs and 17 percent for renewable energy projects).
- **Education Service Districts.** Oregon's Education Service Districts receive 10 percent of PPC funds to improve energy efficiency in individual schools.
- **Oregon Housing and Community Services.** Oregon Housing and Community Services (OHCS) receives and administers PPC funds for low-income housing programs. 4.5 percent of the PPC funds are dedicated to low-income housing development projects; the

³ SB 1149 is codified in ORS 757.600, et. seq. ORS 757.612 specifically addresses the public purpose charge.

projects involve construction of new housing or rehabilitation of existing housing for low-income families through the OHCS Housing Trust Fund. OHCS operates two weatherization programs, and an additional 11.7 percent of the total PPC funds collected are allocated for low-income weatherization. One program provides home weatherization (for single- and multi-family, owner occupied, and rental housing) and the other provides for weatherization of affordable multi-family rental housing through the OHCS Housing Division.

In addition to projects conducted by these agencies, large commercial and industrial customers can implement their own energy conservation or renewable energy projects. These “self-direct” customers can then deduct the cost of projects from the conservation and renewable resource development portion of their PPC obligation to utilities.

Figure 1 shows how total PPC funds are allocated across administrators based on the utilities’ PPC fund disbursement data for January 2005 through June 2006 (see Table 2).

Figure 1: PPC Fund Allocation by Administrator and Program (1/2005-6/2006)⁴

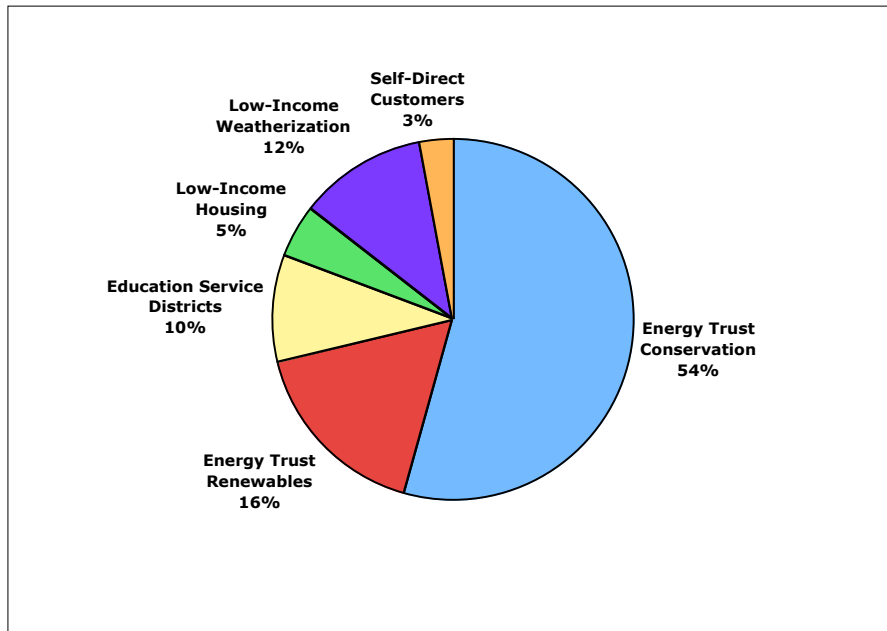


Figure 2 shows the total PPC fund collections for the January 2005 – June 2006 period divided among residential and non-residential ratepayers for each utility⁵. For both utilities, the majority of public purpose funds come from the non-residential sector.

⁴ Note that the graph includes the self-direct expenditures, and consequently the allocation percentages do not coincide with the PPC disbursement information discussed previously, which are based on total PPC funds *collected* by the utilities.

⁵ The sector share was calculated by each utility based on revenues received from January 2005 thru June 2006. Because of the seasonal nature of energy consumption, this distribution will vary depending on the time period.

Figure 2: Sector Contribution of PPC Funds by Utility

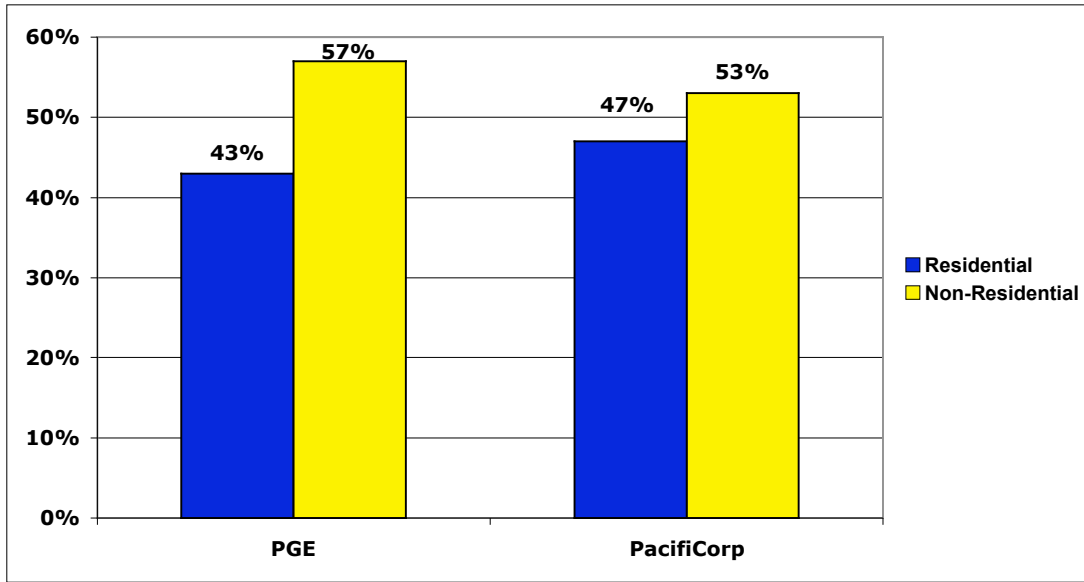
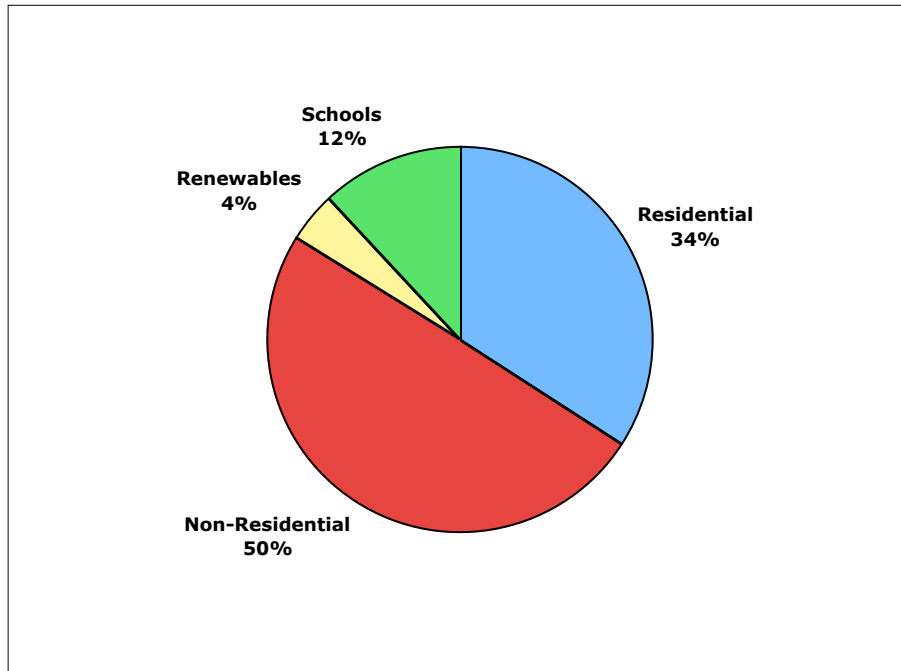


Figure 3 shows how PPC fund expenditures by the various agencies and programs are distributed among sectors. The residential sector (covered by the OHCS and Energy Trust residential conservation programs) received 34 percent of expenditures from January 2005 to June 2006. Over the same timeframe, schools received 12 percent of expenditures, 4 percent of expenditures were spent on renewable resource development, and 50 percent of expenditures were spent on programs for non-residential customers.

Figure 3: Distribution of PPC Expenditures



RECEIPT AND EXPENDITURE SUMMARY

This report details Public Purpose Charge (PPC) expenditures from January 1, 2005 through June 30, 2006. Table 1 shows the total funds collected during this period from both PGE and PacifiCorp. Over this 18-month period, \$61,777,680 in PPC funds was disbursed by PGE and \$37,873,633 was disbursed by PacifiCorp, for a total of \$99,651,313 in PPC funds allocated for conservation and renewable energy programs across agencies. The utilities spent a combined total of \$45,852 on administrative expenses to collect and distribute PPC funds, which includes funds distributed to the Oregon PUC to help oversee this effort.

Table 1: Total PPC Fund Disbursements (1/2005 – 6/2006)

Source	PPC Disbursements	Administrative Expenses
PGE	\$61,777,680	\$33,325
PacifiCorp	\$37,873,633	\$12,527
Total	\$99,651,313	\$45,852

Table 2 provides additional detail on the disbursement across the various programs for the January 2005 – June 2006 period. The far right column of the table shows the level of expenditure for these funds over the same period, and shows that expenditures were generally equal to disbursements for most programs. As shown at the bottom of the table, PPC expenditures totaled \$94,272,090 across all fund administrators. Administrative costs for agencies administering the PPC funds totaled \$5,675,130, or 6.0 percent of all expenditures during this period.

Table 2: PPC Disbursements and Expenditures (1/2005 – 6/2006)

Fund Administrator / Program	Disbursement Source			Expenditure
	PGE	PacifiCorp	Total	Total
Energy Trust of Oregon				
Conservation	\$32,986,183	\$21,339,284	\$54,325,467	\$57,111,128
Renewable Energy	\$9,963,492	\$6,455,669	\$16,419,161	\$3,405,917
Administrative Expenses				\$4,657,352
Education Service Districts*	\$6,169,741	\$3,695,321	\$9,865,062	\$10,461,195
ODOE Program Expenses				\$272,265
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Oregon Housing and Community Services				
Low-Income Weatherization**	\$7,168,965	\$4,348,348	\$11,517,313	\$9,177,984
Low-Income Housing	\$2,933,439	\$1,672,517	\$4,605,956	\$4,798,758
Administrative Expenses				\$576,133
Evaluation, Training, Technical Assistance				\$409,780
Self-Direct Customers***				
Conservation	\$1,929,747	\$191,357	\$2,121,104	\$2,121,104
Renewable Energy	\$626,113	\$171,137	\$797,250	\$797,250
ODOE Program Expenses				\$41,578
Administrative Expenses				\$15,083
Totals	\$61,777,680	\$37,873,633	\$99,651,313	\$94,272,090
Administrative Costs Only				\$5,675,130

* ESD receipts currently exceed disbursements reported by PGE by \$90. PGE is analyzing this discrepancy.

**Low-Income Weatherization includes the ECHO program and the Low-Income Weatherization Program (for multi-family rental housing.)

***The amounts listed for Self-Direct represent public purpose charges retained by the participating sites in lieu of making payments to the utilities, which are then distributed among the other agencies (e.g., Energy Trust)

Table 3 shows the timing of PPC receipts and expenditures since 2004 for each agency. Unexpended funds from 2004 are added to receipts from the January 2005 – June 2006 period to show total funds available, and expenditures over this same period are also tabulated.

Table 3: Cumulative PPC Receipts and Expenditures (1/2005-6/2006)

Fund Administrator / Program	2004 Carry Forward*	1/2005-6/2006 Receipts	1/2005-6/2006 Expenditures
Energy Trust of Oregon			
Conservation	\$11,810,858	\$54,325,467	\$61,170,496
Renewable Energy	\$18,399,578	\$16,419,161	\$4,003,901
Education Service Districts	\$5,946,973	\$9,865,062	\$11,160,022
Oregon Housing and Community Services**	\$12,940,741	\$16,123,269	\$14,962,655
Self-Direct Customers***	\$0	\$2,918,355	\$2,975,015
Totals	\$49,098,150	\$99,651,313	\$94,272,090

*2004 carryover amounts calculated by ECONorthwest using data from the prior PPC fund report *Report to Legislative Assembly on Public Purpose Expenditures for the Period January 1, 2003 – December 31, 2004* (March 3, 2005).

**Expenditures for the OHCS Low-Income program include expenditures from the Housing Trust Fund.

*** The amounts listed for Self-Direct represent public purpose charges retained by the participating sites in lieu of making payments to the utilities, which are then distributed among the other agencies (e.g., Energy Trust)

The remaining sections in this report describe how each organization used its allocated funds. For comparison's sake, administrative expenses must be defined consistently across agencies. In this report, we define administrative expenses as

1. Costs that cannot be otherwise associated with a certain program but which support an agency's general operations. These costs may include board or executive director activities, general business management, accounting, general reporting, and oversight;
2. General outreach and communication; and
3. The following direct program support costs:
 - a. Supplies
 - b. Postage and shipping
 - c. Telephone
 - d. Occupancy expenses
 - e. Printing and publications
 - f. Insurance
 - g. Equipment
 - h. Travel
 - i. Meetings, training, and conferences
 - j. Interest expense and bank fees
 - k. Depreciation and amortization
 - l. Dues, licenses, and fees
 - m. Other misc. expenses

The administrative expenses provided for each agency all conform with this definition.

2. ENERGY TRUST OF OREGON, INC.

OVERVIEW

The Oregon PUC designated the Energy Trust of Oregon, Inc. to administer the conservation and renewable resource components of the PPC. The Trust sponsors a suite of programs that target new and existing residential, commercial, and industrial electricity customers in the PGE and PacifiCorp service areas. Through these programs, Energy Trust provides technical and information assistance and financial incentives to install efficiency measures and renewable energy resources. A portion of the funds from Energy Trust is also allocated to the Northwest Energy Efficiency Alliance (NEEA) to support its ongoing energy efficiency market transformation programs.⁶

Table 4 provides a summary of Energy Trust PPC revenues and expenditures from January 1, 2005 through June 30, 2006. Funds received by Energy Trust during this period totaled \$70,744,626, and expenditures totaled \$65,174,397. Administrative expenses totaled \$4,657,352 and comprised 7.1 percent of total spending by Energy Trust on conservation and renewable programs and 6.6 percent of total PPC receipts during this period.⁷

Table 4: Energy Trust Receipt and Expenditure Summary (1/2005 – 6/2006)

Transaction	PGE	PacifiCorp	Total
Total Fund Receipts	\$42,949,674	\$27,794,952	\$70,744,626
Expenditures			
Energy Conservation	\$34,309,734	\$22,801,394	\$57,111,128
Renewable Energy	\$1,476,767	\$1,929,150	\$3,405,917
Administrative Expenses	\$2,721,359	\$1,935,992	\$4,657,352
Total Expenditures	\$38,507,860	\$26,666,537	\$65,174,397

Specific detail on Energy Trust conservation and renewable energy program activities is provided below.

ENERGY CONSERVATION

Receipts and Expenditures

Table 5 shows Energy Trust fund receipts and expenditures for its conservation programs. During the January 2005 – June 2006 period, \$54,325,467 in PPC funds was distributed to

⁶ The Energy Trust also administers residential and commercial conservation programs for Northwest Natural Gas Company and Cascade Natural Gas Corporation under the terms of a stipulation with the PUC.

⁷ Administrative expenses used here and in subsequent tables are defined using the common administrative expense definition discussed in the introduction of this report. Administrative costs allocated to Northwest Natural Gas and Cascade Natural Gas are not included.

Energy Trust for spending on these programs. Conservation program expenditures totaled \$61,170,496 during this same period. Administrative costs that could be directly assigned to Energy Trust conservation programs totaled \$4,059,368, or 6.6 percent of total conservation program spending and 7.5 percent of total PPC receipts for conservation programs.

Table 5: Energy Trust Conservation Receipts and Expenditures (1/2005 – 6/2006)

Transaction	PGE	PacifiCorp	Total
Fund Receipts	\$32,986,183	\$21,339,284	\$54,325,467
Expenditures			
Program Expenditures	\$34,309,734	\$22,801,394	\$57,111,128
Administrative Expenses	\$2,387,354	\$1,672,014	\$4,059,368
Total Expenditures	\$36,697,088	\$24,473,408	\$61,170,496

Results

Energy Trust conservation activities consisted of the design and delivery of conservation programs targeted to different market sectors with a wide range of energy saving measures. Table 6 shows the accomplishments of the individual programs sponsored by the Energy Trust. During the period covered by this report, almost 400,000,000 kWh in energy savings were achieved across all market sectors. The Industrial sector accounted for approximately half of these savings with 202,408,635 kWh saved. Similarly, residential sector energy savings were 116,099,202 kWh (30 percent of total Energy Trust savings), and Commercial sector savings were 72,855,121 kWh (19 percent).

Within the Residential sector, market transformation programs funded through NEEA accounted for the largest share of savings, with 60 percent of energy savings within that sector. In the Commercial sector, the Building Efficiency Program was the largest contributor and accounted for 67 percent of the energy savings achieved during this sector.

Table 6: Energy Trust Conservation Programs Energy Savings By Service Territory (1/2005-6/2006)

Program Name	PGE Savings (kWh)	PacifiCorp Savings (kWh)	Total Savings (kWh)	Average Life of Savings (years)
Residential				
Home Energy Savings (includes State Home Oil Weatherization and solar hot water)	16,852,242	7,393,788	24,246,030	27
Efficient New Homes (includes multi-family and manufactured)	1,649,070	763,041	2,412,111	31
NEEA (Market Transformation)	40,887,477	29,255,658	70,143,135	8
Efficient Home Products	12,074,286	7,233,640	19,297,926	10
Total Residential	71,463,076	44,636,126	116,099,202	13
Commercial				
Building Efficiency (includes solar hot water)	34,930,248	13,759,571	48,689,819	13
New Building Efficiency	5,522,746	4,034,357	9,557,103	17
Building Tune-Ups	375,762	281,821	657,583	3
LED Stoplights	1,119,794	1,445,301	1,565,095	7
NEEA (Market Transformation)	6,696,316	4,689,206	11,385,522	15
Total Commercial	48,644,865	24,210,257	72,855,121	13
Industrial				
Production Efficiency	128,311,333	71,243,607	199,554,940	11
NEEA (Market Transformation)	1,706,324	1,147,371	2,853,695	10
Total Industrial	130,017,657	72,390,978	202,408,635	11
Total All Programs	250,125,598	141,237,361	391,362,959	

Table 7 provides additional detail regarding the types of efficiency improvements that are being implemented for the various conservation programs. In the Residential sector nearly 25,000 efficient clothes washers were installed, and in the Commercial sector, efficient lights and heating and cooling equipment are common improvements.

Table 7: Energy Trust Example Efficiency Improvements (1/2005 – 6/2006)

Improvement Type	Number of Measures	Average Life of Savings (years)
Residential		
Efficient clothes washers	24,634	14
Solar water heating systems	87	19
Efficient New Single Family Homes	974	30
Single Family Home Retrofits (duct sealing, insulation, high efficiency heating and efficient windows)	16,638	27
Commercial		
Efficient lights, heating/cooling equipment and controls	1,905	13
Solar water heating systems	4	13
Highly efficient new commercial buildings	130	17
Industrial		
Efficient manufacturing processes, water and wastewater treatment, and agriculture	319	10

Table 8 shows Energy Trust’s cost for each conservation program and the levelized energy costs that have been achieved. The most Energy Trust funds were spent on the Industrial Production Efficiency Program (\$26.4 million) followed by the Commercial Building Efficiency Program (\$10 million) and Residential Home Energy Savings Program (\$9.4 million). The lowest levelized energy costs were attained in the Residential sector, which ranged from 0.3 to 4.7 cents per kWh across the residential programs. The highest energy costs were realized in the Commercial sector, which ranged from 1.3 to 15 cents per kWh across programs.

Table 8: Energy Trust Conservation Costs and Levelized Energy Costs (1/2005 – 6/2006)

Program Name	ETO Cost	Levelized Cost (cents/kWh)*
Residential		
Home Energy Savings	\$9,438,424	2.0
Efficient New Homes	\$2,526,679	4.7
NEEA (Market Transformation)	\$1,690,418	0.3
Efficient Home Products	\$3,618,419	1.9
Total Residential	\$17,273,941	1.3 (avg.)
Commercial		
Building Efficiency	\$10,020,503	1.8
New Building Efficiency	\$3,530,771	2.5
Building Tune-Ups	\$312,371	15
LED Stoplights	\$224,789	1.3
Utility Transition**	\$13,576	N/A
NEEA (Market Transformation)	\$2,117,499	1.4
Total Commercial	\$16,219,510	1.9 (avg.)
Industrial		
Production Efficiency	\$26,405,229	1.3
Utility Transition**	(\$14,898)	N/A
CHP***	\$17,770	
NEEA (Market Transformation)****	\$1,268,942	4.9
Total Industrial	\$27,677,041	1.4 (avg.)

* Levelized costs were calculated by the Energy Trust and include savings for reduced transmission and distribution losses.

** Close-out work on prior projects.

*** Preparatory work for 2006 program.

**** Start-up, not expected to be cost effective initially.

Table 8 shows how the electric incentives paid by Energy Trust were distributed across the geographic regions of Oregon. About 60 percent of all incentives (\$22.5 million) were paid to customers in the Portland area, and 30 percent was divided between the Willamette Valley and southern Oregon.

Table 9: Energy Trust Electric Incentive Payments by Sector and Region, Thousands of Dollars (1/2005 – 6/2006)

Sector	Central/East	NW/Coast	Portland Area	Southern	Willamette Valley	Total
Residential	\$438	\$170	\$4,945	\$576	\$1,607	\$7,736
Commercial	\$338	\$150	\$6,894	\$637	\$973	\$8,992
Industrial	\$1,140	\$1,136	\$10,726	\$4,057	\$3,655	\$20,714
Total	\$1,916	\$1,456	\$22,565	\$5,270	\$6,235	\$37,442

MARKET TRANSFORMATION

Actions and Processes

NEEA is funded by the Energy Trust on behalf of PGE and PacifiCorp’s ratepayers, and by other electric utilities in Oregon, Washington, Idaho, and Montana. NEEA helps promote electric efficiency through market transformation, i.e., change in sales, selection, design, installation, operation, and maintenance practices for homes, equipment, buildings and industrial facilities. NEEA’s programs are closely integrated with those of the Energy Trust but are more focused on long-term market change. Among its initiatives in 2005 were programs for efficient new homes, compact fluorescent lamps, washing machines, personal computer power supplies, grocery stores, hospitals, food processing facilities, and pulp and paper facilities.

Table 10 shows the energy savings accomplishments of the programs delivered by NEEA. During the period covered by this report, over 84,000,000 kWh in energy savings were achieved across the three market sectors, with the Residential sector accounting for 83 percent of the savings.

Table 10: Market Transformation Energy Savings By Program and Service Territory (1/2005-6/2006)

Program Name	PGE Savings (kWh)	PacifiCorp Savings (kWh)	Total Savings (kWh)	Average Life of Savings (years)
NEEA Residential	40,887,477	29,255,658	70,143,135	8
NEEA Commercial	6,696,316	4,689,206	11,385,522	15
NEEA Industrial	1,706,324	1,147,371	2,853,695	10
Total	49,290,117	35,092,234	84,382,352	9

Participating Firms and Organizations

Through NEEA, the Energy Trust’s efforts are coordinated with those of all the electric utilities of the Northwest (for activities beyond the PGE and PacifiCorp Oregon service territories) and

the state energy offices and public utility commissions of Oregon, Montana, Idaho and Washington. NEEA also helps coordinate some program efforts with the Federal Government, for example, by negotiating with the US Environmental Protection Agency to create the ENERGY STAR Northwest new home efficiency program. Through the Consortium for Energy Efficiency, Energy Trust and NEEA also coordinate with similar programs nationally.

Table 11 shows Energy Trust’s cost for each market transformation program. Total Energy Trust costs for market transformation were about \$5 million, of which 42 percent was spent in the Commercial sector.

Table 11: Energy Trust Market Transformation Costs (1/2005 – 6/2006)

Program Name	ETO Cost
NEEA Residential	\$1,690,418
NEEA Commercial	\$2,117,499
NEEA Industrial	\$1,268,942
Total	\$5,076,859

Technology Advancement

In 2005 and the first half of 2006, NEEA saw particular success in the compact fluorescent bulb market. Due in part to NEEA, utility, and Energy Trust efforts over several years, regional compact fluorescent sales increased by 1.7 million bulbs in 2005.

NEEA and its partners also led the nation in per household sales of efficient clothes washers, helping to influence an upgrade to the efficiency specification for ENERGY STAR-labeled washers. Similarly, NEEA’s efforts with personal computer power supplies (as the first entity to sign onto a national program) helped influence the development of an ENERGY STAR specification for efficient PC power supplies. Due to the popularity of the ENERGY STAR label, these efficient power supplies are expected to achieve a significant global market share over the next few years.

NEEA’s primary focus in the commercial and industrial sectors is on working with businesses at the corporate level to develop investment practices that profit from efficiency. To ensure there is a technical capability to follow through on the business plans, NEEA provides technical support to these businesses and their service contractors in daylighting, passive ventilation, integrated building design, building tune-ups, retro-commissioning, efficient motors systems, compressed, air, and pumps. NEEA also demonstrated an ultra-efficient cooling system for rooftop air conditioning of commercial buildings.

RENEWABLE ENERGY

Receipts and Expenditures

Table 12 shows the PPC fund receipts and expenditures dedicated to Energy Trust renewable energy programs from January 1, 2005 through June 30, 2006. During this period, \$16,419,161

in PPC funds was allocated to Energy Trust for renewable energy projects, and renewable energy program spending totaled \$4,003,901. Administrative costs related to the renewable energy program totaled \$597,984 and comprised 14.9 percent of total renewable energy program spending by Energy Trust and 3.6 percent of the PPC receipts designated for the renewable energy programs.

Table 12: Energy Trust Receipts and Renewable Expenditures (1/2005 – 6/2006)

Transaction	PGE	PacifiCorp	Total
Fund Receipts	\$9,963,492	\$6,455,669	\$16,419,161
Expenditures			
Program Expenditures	\$1,476,767	\$1,929,150	\$3,405,917
Administrative Expenses	\$334,005	\$263,979	\$597,984
Total Expenditures	\$1,810,772	\$2,193,129	\$4,003,901

Results

Table 13 lists all the active renewable energy generation projects completed or initiated by Energy Trust from January 2005 through June 2006⁸. The largest amount of renewable energy capacity will be achieved through three utility-scale wind farms located in Umatilla County and Klickitat County (WA), which will serve Oregon customers. Upon completion, all of the projects listed will provide a total of 535,033 MWh per year in renewable energy, the vast majority of which will be in PacifiCorp’s service territory (97 percent). Projects that are currently operational are providing 126,700 MWh in renewable energy per year. In particular, the Solar Electric Program, which provides homeowners and businesses with financial incentives to adopt solar power applications, has completed a large number of projects (nearly 400 in both service territories) that are now operational.

Table 14 shows all of the feasibility studies and other development projects that were approved for funding by Energy Trust or Oregon's renewable energy programs from January 2005 through June 2006. A total of 36 projects are active, and range from study proposals to detailed feasibility studies. Fifteen projects are located in PGE’s service territory, and 16 are located in PacifiCorp’s territory. (Five projects could be located in either territory.) Almost half of the projects (15) are Biomass projects, with the remainder being distributed between Solar, Hydro and Community Wind projects. The total cost for all of these projects is \$435,623.

⁸ Energy Trust board policy requires Energy Trust to take ownership of green tags in proportion to its funding of above-market cost. However, project-specific information regarding green tag ownership is not published to respect commitments to program participants’ confidentiality. In general, generation projects received state and federal tax credits; some received income from green tags sales; and community wind projects generally received USDA grants ranging from \$35,000-50,000. However, pursuant to Energy Trust board policy, project-specific information on non-Energy Trust investments is not published.

Table 13: Energy Trust Renewable Energy Projects Summary

Project Name	Project Type	# of Projects (solar electric only)	Status	County	Estimated Life Years	Generating Capacity (MW)	Annual Energy (MWh/yr)	Project cost (\$/MWh)	Cost to Energy Trust (\$/MWh)	Percent of Above-Market Cost Paid	Utility Service Territory
Rough & Ready	Biomass	n/a	Construction	Josephine	20	1,200	10,091.52	\$450.43	\$166.98	100%	PAC
Columbia Blvd.	Biomass	n/a	Construction	Multnomah	20	1,800	12,124.00	\$413.36	\$29.86	100%	PGE
Douglas County	Biomass	n/a	Construction	Douglas	20	3,036	28,300.00	\$104.11	--	0%	PAC
Dry Creek	Biomass	n/a	Contracting	Jackson	20	2,366	23,933.57	\$163.54	--	0%	PAC
Combine Hills	Wind	n/a	Operational	Umatilla	20	41,000	124,830.00	\$360.49	\$30.44	100%	PAC
Goodhoe Hills East	Wind	n/a	Construction	Klickitat, WA	20	56,000	166,700.00	\$674.87	\$13.50	30%	PAC
Goodhoe Hills West	Wind	n/a	Construction	Klickitat, WA	20	56,000	166,700.00	\$674.87	\$13.50	30%	PAC
Klamath Falls Pepsil PV	Large solar	n/a	Operational	Klamath	20	0.171	211.03	\$4,703.06	\$995.11	75%	PAC
OHSU PV	Large solar	n/a	Construction	Multnomah	20	0.060	66.00	\$7,581.82	\$2,831.97	70%	PGE
Stoller Vineyards PV	Large solar	n/a	Operational	Yamhill	20	0.046	44.31	\$7,751.16	\$1,801.12	68%	PGE
Sunderland Yard	Small wind	n/a	Operational	Multnomah	20	0.010	12.75	\$4,971.99	\$2,833.59	86%	PGE
Small wind -- name confidential	Small wind	n/a	Operational	Marion	20	0.002	5.30	\$4,108.49	\$2,500.00	79%	PGE
Apeassy Orchards	Small wind	n/a	Decommissioned	Hood River	1	0.025	40.00	\$1,355.18	\$28.90	100%	PAC
	Solar Electric in PGE	21	Construction	n/a	20	0.1495	189.82	\$6,535.09	\$1,119.81	65%	PGE
	Solar Electric in PAC	39	Construction	n/a	20	0.133359	188.60	\$6,693.38	\$1,308.96	65%	PAC
	Solar Electric in PGE	92	Operational	n/a	20	0.326077	347.93	\$6,954.81	\$2,501.53	90%	PGE
	Solar Electric in PAC	283	Operational	n/a	20	0.999349	1,249.00	\$5,618.24	\$2,161.36	90%	PAC
TOTAL						163.323	\$35,033.83	\$59,114.881	\$16,336.621		
TOTAL OPERATIONAL						42.55	126,700.32	\$34,468.25	\$12,823.15		
TOTAL CONSTRUCTION						118.38	384,359.94	\$23,127.92	\$5,484.57		

Table 14: Energy Trust Feasibility Studies and Other Projects (1/2005 – 6/2006)

Project Name	Project Type	Project Stage	County	Utility Service Territory	Cost to Energy Trust	Energy Trust Share
Swanson (Glendale mill)	Biomass	proposal development	Douglas	PAC	\$ 5,610	100%
Dry Creek Landfill	Biomass	proposal development	Jackson	PAC	\$ 3,185	100%
Douglas County Forest Products	Biomass	proposal development	Douglas	PAC	\$ 12,145	100%
Freres Lumber	Biomass	proposal development	Linn	PGE	\$ 1,426	50%
Rough & Ready Lumber	Biomass	proposal development	Josephine	PAC	\$ 3,695	50%
Dry Creek Landfill	Biomass	feasibility study	Jackson	PAC	\$ 14,088	50%
Tryon Creek WWTP	Biomass	feasibility study	Multnomah	PGE	\$ 4,200	50%
Gervais Biopower	Biomass	feasibility study	Marion	PGE	\$ 2,000	25%
Lakeview Biomass Project	Biomass	fuel supply study	Lake	PAC	\$ 25,000	50%
SP Newsprint	Biomass	feasibility study	Coos	PAC	\$ 22,500	25%
Southport Lumber	Biomass	feasibility study	Coos	PAC	\$ 5,990	50%
Applegate Partnership	Biomass	fuel supply study	Jackson/Josephine	PAC	\$ 23,963	31%
Roseburg (Dillard mill)	Biomass	feasibility study	PAC	PAC	\$ 6,882	50%
West Linn Paper	Biomass	feasibility study	Yamhill	PAC	\$ 20,000	25%
Inland Pacific Energy Center	Biomass	feasibility study	Umatilla	PAC	\$ 23,000	50%
Lakeview Springline Hydropower	Hydro study	feasibility study	Lake	PAC	\$ 10,000	63%
West Linn microhydro assessmt	Hydro study	scoping study	Clackamas	PGE	\$ 1,400	100%
Tigard microhydro assessment	Hydro study	scoping study	Washington	PGE	\$ 480	100%
Sherwood microhydro assessment	Hydro study	scoping study	Washington	PGE	\$ 480	100%
Lake Oswego microhydro assessment	Hydro study	scoping study	Clackamas	PGE	\$ 1,800	100%
West Linn solar assessment	Solar study	scoping study	Clackamas	PGE	\$ 600	100%
Tigard solar assessment	Solar study	scoping study	Washington	PGE	\$ 360	100%
Sherwood solar assessment	Solar study	scoping study	Washington	PGE	\$ 400	100%
Fred Meyer solar assessment	Solar study	scoping study	Clackamas	PGE	\$ 1,500	100%
Burgerville solar assessment	Solar study	scoping study	Multnomah	PGE	\$ 2,500	100%
200 Market St. solar assessmt	Solar study	scoping study	Multnomah	PAC	\$ 1,000	100%
Sokol-Blosser	Solar study	scoping study	Yamhill	PAC	\$ 400	100%
Nike	Solar study	scoping study	Washington	PGE	\$ 600	100%
Pacific Foods	Solar study	scoping study	Washington	PGE	\$ 600	100%
Bodewig community wind feasibility study	Community wind study	feasibility study	Umatilla	PAC or PGE	\$ 16,873	24%
Mason community wind feasibility study	Community wind study	feasibility study	Morrow/Gilliam	PAC or PGE	\$ 16,873	17%
Robinson community wind feasibility study	Community wind study	feasibility study	Umatilla	PAC or PGE	\$ 7,000	10%
Sherman County community wind feasibility study	Community wind study	feasibility study	Sherman	PAC or PGE	\$ 16,873	17%
OTAK community wind feasibility study	Community wind study	feasibility study	Wallowa	PAC	\$ 7,600	9%
STAK community wind feasibility study	Community wind study	feasibility study	Union	PAC	\$ 7,600	9%
Anemometer Loan Program	ALP	feasibility study	Various	PAC and PGE	\$ 167,000	100%
TOTAL					\$ 435,623	

3. OREGON HOUSING AND COMMUNITY SERVICES

OVERVIEW

Oregon Housing and Community Services (OHCS) receives and administers PPC funds for low-income housing programs. Four and one-half percent of the PPC funds are dedicated to low-income housing development projects, either for construction of new housing or rehabilitation of existing housing for low-income families through the OHCS Housing Trust Fund. OHCS operates two weatherization programs, and an additional 11.7 percent of the total PPC funds collected are allocated for low-income weatherization. One program provides home weatherization (for single- and multi-family, owner occupied, and rental housing) and the other provides for weatherization of affordable multi-family rental housing through the OHCS Housing Division. In either case, housing projects supported by PPC funds for weatherization are required to have a conservation element.

Table 15 provides a summary of the Trust Fund and Weatherization portion of PPC fund receipts and expenditures from January 1, 2005 through June 30, 2006. Funds received by Oregon Housing and Community Services during this period amounted to \$16,123,269 and expenditures totaled \$24,489,859. (Note: this expenditure value includes \$9,527,204 in funds committed to projects that are not yet completed.)

Table 15: OHCS Receipt and Expenditure Summary (1/2005 – 6/2006)

Transaction	PGE	PacifiCorp	Total
Low-Income Weatherization			
Administration	\$358,448	\$217,417	\$575,865
Evaluation, Training, and Technical Assistance	\$358,448	\$217,417	\$575,865
ECHO	\$5,484,259	\$3,326,487	\$8,810,746
Multi-Family Rental Housing	\$967,810	\$587,027	\$1,554,837
Total Low-Income Weatherization	\$7,168,965	\$4,348,348	\$11,517,313
Low-Income Housing			
Administration	\$146,672	\$83,623	\$230,295
Program	\$2,786,767	\$1,588,891	\$4,375,658
Total Low-Income Housing	\$2,933,439	\$1,62,517	\$4,605,956
Total Fund Receipts	\$10,102,403	\$6,020,865	\$16,123,269
Expenditures			
Low-Income Weatherization *	\$5,493,053	\$3,684,931	\$9,177,984
Committed but unexpended	\$3,592,802	\$2,708,308	\$6,301,110
Low-Income Housing**			\$4,798,758
Committed but unexpended			\$3,226,094
Administrative Expenses**			\$ 576,133
Evaluation, Training, Technical Assistance**			\$409,780
Total Expenditures (w/o Committed)**	\$5,493,053	\$3,684,931	\$14,962,655
Total Expended and Committed**	\$9,085,855	\$6,393,239	\$24,489,859

*Includes the ECHO program and the Low-Income Weatherization Program (for multi-family rental housing).

** Low-Income Housing, Administrative, and Evaluation Training and Technical Assistance expenditures are not tracked by utility.

Specific detail on the low-income housing program and low-income weatherization activities is provided subsequently.

LOW-INCOME HOUSING

Receipts and Expenditures

The Housing Development Grant Program (HDGP), commonly known as the Housing Trust Fund, was created in 1991 to expand the State's supply of housing for low and very low-income families and individuals. The program provides grants and loans to construct new housing or to acquire and/or rehabilitate existing structures. Seventy-five percent of program funds must support households whose gross income is at or below 50 percent of the area median income; the balance of the funds can support households with incomes up to 80 percent of the area median income. The majority of program resources are awarded through a competitive application

process that occurs twice annually, once for the spring and once for the fall funding cycle. Funding preference is given to project applicants who provide services appropriate for the targeted tenant population.

Table 16 shows PPC fund receipts and expenditures for the low-income housing program. During the January 2005 – June 2006 period, a total of \$4,605,956 in PPC funds were allocated to Oregon Housing and Community Services to support low-income housing projects throughout the State. Expenditures from PPC revenue for projects developed during this period were \$1,827,520. An additional \$2,971,238 was expended for projects awarded funding prior to January 2005. Funds to pay project costs totaling \$3,226,094 were obligated but not spent as of June 30, 2006. In addition, allocations were made to four Regional Housing Centers to establish a program to acquire and rehabilitate single family residences for purchase by low income households. The one-time allocation to the Housing Centers will be recycled through the sale of the homes to continue the program for a period of 10 years.

**Table 16: Low-Income Housing Program Receipts and Expenditures
(1/2005 – 6/2006)**

Transaction	Total
Fund Receipts*	\$4,605,956
Expenditures	
Committed but unexpended	\$3,226,094
Expenditures	\$4,798,758
Total Expended and Committed	\$8,024,852

Results

Key accomplishments for the low-income housing program during the January 2005 – June 2006 period include the following:

- Fifty-five multi-family housing projects received HDGP awards that were either fully or partially funded with PPC revenue.
- HDGP funds helped eighteen counties in Oregon create affordable housing and support local jobs.
- Projects representing the construction or rehabilitation of 1,701 affordable units; and
- HDGP awards leveraging total project costs of \$175.8 million.

Additional detail on program accomplishments, including the characteristics of the low-income families served is shown in Table 17.

Table 17: Low-Income Housing Accomplishments (1/2005-6/2006)

Accomplishment	Total
Number of Projects	55
Number of Units*	1,701
Population Served (# of housing units)	
Elderly	183
Families***	849
Special Needs (# of housing units)	
Special Needs Groups**	624
Farm Workers	60
Units where household income is less than 80 percent of the area median income (Household income between 61-80%)	5
Units where household income is less than 60 percent of the area median income (Household income between 51-60%)	462
Units where household income is less than 50 percent the area median income (Household income between 41-50%)	851
Units where household income is less than 40 percent the area median income (Household income between 31-40%)	301
Units where household income is less than 30 percent the area median income	80

*The total number of units may overstate the number of low-income families served by the program, as some projects have manager's units that do not require fixed rents or income. In some cases not all units in a project are targeted for low-income housing. Some group homes are counted as one unit but may serve up to 5 individual low-income residents.

**Includes individuals in alcohol and drug recovery programs, ex-offenders, individuals with chronic mental illness, homeless, domestic violence, youth, HIV, and the developmentally disabled.

***Figure includes 4 Regional Housing Centers establishing 4 single-family residences for purchase by low income families. The original PPC funds provided to a Regional Housing Center will be recycled to continue ongoing program for a period of 10 years.

Table 18 shows how the low-income housing projects were distributed among Oregon's counties.

Table 18: Low-Income Housing Projects by County (1/2005-6/2006)

County	Number of Projects	Number of Units in County
Baker	2	3
Coos	1	39
Curry	2	37
Deschutes	1	97
Douglas	4	82
Jackson	5	182
Lake	1	16
Lane	7	157
Lincoln	1	60
Linn	4	35
Marion	3	57
Multnomah	10	611
Polk	3	80
Umatilla	2	16
Union	1	20
Wallowa	1	11
Washington	6	197
Yamhill	1	1
18 counties	55 Projects	1,701 units

LOW-INCOME WEATHERIZATION (MULTI-FAMILY RENTAL HOUSING)

Receipts and Expenditures

The Low-Income Weatherization program is designed to reduce the energy usage and utility costs of lower income tenants residing in affordable rental housing. The program provides grant funding for the construction or rehabilitation of affordable rental housing that is located in PGE or PacifiCorp service territories. Use of these funds requires that at least 50 percent of the units in the project be rented to households whose income is at or below 60 percent of the area median income (adjusted by family size) as defined by HUD. Projects receiving funds must also remain affordable for at least 10 years.

For each dollar invested, the project must demonstrate at least one kilowatt-hour in energy savings in the first year of operation. Program resources may be used for shell measures such as windows, doors, and insulation as well as energy-efficient appliances and lighting.

Table 19 shows the PPC fund receipts and expenditures allocated for low-income home weatherization. During this period, a total of \$1,554,837 in PPC funds was allocated to Oregon Housing and Community Services to support weatherization of rental housing projects within the State. Actual project expenditures were \$583,288 during this period while funds committed to projects totaled an additional \$1,575,933. Expenditures are less than committed funds as housing

development projects can take upwards of two years to complete and funds therefore need to be reserved over multiple years.

**Table 19: Low-Income Weatherization (Multi-Family Rental Housing)
Receipts and Expenditures (1/2005 – 12/2006)**

Transaction	PGE	PacifiCorp	Total
Fund Receipts	\$967,810	\$587,027	\$1,554,837
Expenditures			
Committed but unexpended	\$788,922	\$787,011	\$1,575,933
Expenditures	\$154,550	\$428,738	\$583,288
Total Expended and Committed	\$943,472	\$1,215,749	\$2,159,221

Results

Key accomplishments for the January 2005 – July 2006 period include the following:

- 22 housing projects estimated to assist 987 households across Oregon were funded during this period with a combined total cost of almost \$110 million; and
- These 22 projects are expected to produce more than 1.2 million kWh in electricity savings in the first year of operation.

The low-income weatherization accomplishments are summarized in Table 20.

Table 20: Low-Income Weatherization (Multi-Family Rental Housing) Accomplishments (1/2005 – 6/2006)

Accomplishment	Total
Number of Projects	22
Number of Units*	987
Estimated kWh Savings	1,227,991
Population Served (# of housing units)	
Elderly	90
Families	405
Special Needs (# of housing units)	
Special Needs Groups**	432
Farm Workers	60
Units where household income is less than 80 percent of the area median income	159
Units where household income is less than 60 percent of the area median income	230
Units where household income is less than 50 percent of the area median income	356
Units where household income is less than 40 percent of the area median income	180
Units where household income is less than 30 percent of the area median income	55

*The total number of units overstates the number of units actually served by the program: some projects have manager's units that do not require fixed rents or income, and all units at a project location are not necessarily 100 percent affordable. As a result, total units by rent add to less than total units.

**Includes individuals in alcohol and drug recovery programs, ex-offenders, individuals with chronic mental illness, and the developmentally disabled.

Table 21 shows how the low-income weatherization projects were distributed among Oregon's counties.

Table 21: Low-Income Weatherization Program by County (1/2005-6/2006)

County	Number of Projects	Number of Units in County
Clackamas	1	24
Coos	1	39
Deschutes	1	97
Douglas	2	16
Jackson	2	94
Lane	1	53
Lincoln	1	60
Marion	3	75
Multnomah	5	432
Polk	3	80
Umatilla	1	6
Wallowa	1	11
12 counties	22 Projects	987 units

LOW-INCOME WEATHERIZATION (ECHO)

Receipts and Expenditures

A portion of the PPC allocated to Oregon Housing and Community Services goes into the Energy Conservation Helping Oregonians (ECHO) fund and is used for weatherization projects for low-income households.

Oregon Housing and Community Services (OHCS) contracts with local community action agencies (CAAs) to deliver the program. This local network of subgrantees determines applicant eligibility and delivers services. Qualifying households must apply through the local CAA and are placed on a weatherization waiting list. The waiting period varies with each local agency depending on local need, but households with senior and disabled members and households with children under six years of age are given priority. Once a home is scheduled for weatherization, the applicant is contacted and an energy audit is scheduled. The energy audit determines the appropriate measure to be initiated based on the existing condition of the home and the funds available. Program resources can be used for shell measures that may include:

- Ceiling, wall, and floor insulation
- Energy-related minor home repairs
- Energy conservation education
- Air infiltration reduction
- Furnace repair and replacement
- Heating duct improvements

Completed work is inspected by the local agency to ensure compliance with program standards. For each dollar invested, the project/unit must also demonstrate at least 1 kilowatt-hour in energy savings in the first year of operation.

Table 22 shows the PPC fund receipts and expenditures allocated for low-income home weatherization. During this period, \$8,810,745 in PPC funds was designated for low-income weatherization from January 1, 2005 to June 30, 2006. Expenditures on completed weatherization projects during the same period totaled \$8,594,696 with an additional \$4,725,177 reserved for projects that had not been completed as of June 30, 2006.

Table 22: Low-Income Weatherization (ECHO) Program Receipts and Expenditures (1/2005-6/2006)

Transaction	PGE	PacifiCorp	Total
Fund Receipts	\$5,484,258	\$3,326,486	\$8,810,745
Expenditures			
Committed but unexpended	\$2,803,880	\$1,921,297	\$4,725,177
Expenditures	\$5,338,503	\$3,256,193	\$8,594,696
Total Expended and Committed	\$8,142,383	\$5,177,490	\$13,319,873

Results

The low-income weatherization accomplishments are summarized in Table 23. Since the beginning of 2005, this program resulted in the weatherization of 3,012 homes with a combined estimated electricity savings of 12,296,277 kWh. These program efforts have directly benefited 4,814 people, the majority of whom are in demographic groups that tend to include the elderly, disabled individuals, and young children.

Table 23: Low-Income Weatherization (ECHO) Program Accomplishments (1/2005-6/2006)

Accomplishment	Total
Number of Homes Weatherized	3,012
Annual kWh Savings	12,296,277
Total Population Served	4,814
Special Target Populations Served	
Elderly (>60 years old)	1,455
Children (<6 years old)	738
Handicapped	918
Farm Workers	37
Native American	150
Hispanic	1,132
African American	67
Asian	68

4. EDUCATIONAL SERVICE DISTRICTS

OVERVIEW

Each year, 10 percent of PPC funds are allocated to the 17 Educational Service Districts (ESDs) located within PGE and PacifiCorp service territories; statewide, 857 schools (112 districts and 394,722 students) are eligible for PPC funding. These funds are used for cost-effective energy conservation projects at individual schools within each ESD and must follow a specific spending directive. First, all schools within a school district must complete an energy audit to identify cost-effective conservation opportunities. After all the schools have completed the audit, PPC funds are used to pay for 100 percent of the installation cost for the energy efficiency measures identified during the audits. After all of the recommended measures have been installed, any remaining funds may be used to pay for additional energy conservation measures, energy conservation education, and renewable energy projects at schools within the ESD.

The Oregon Department of Energy provides program oversight for the ESD audits and projects to ensure consistency across ESDs and to verify that projects adhere to the guidelines established for this program. Although the Oregon Department of Energy has oversight for this program, the individual ESDs receive their PPC funds directly from the utilities.

RECEIPTS AND EXPENDITURES

Table 24 provides a summary of the ESD portion of PPC fund receipts and expenditures from January 1, 2005 through June 30, 2006. In addition to the normal program administrative expenses defined earlier, this program has additional administrative expenses for each ESD and school district. Total administrative costs for schools, then, equal \$426,562 and comprise 3.8 percent of total expenditures over this period, and 4.3 percent of the PPC allocated to Oregon schools.

Table 24: ESD Receipt and Expenditure Summary (1/2005 – 6/2006)

Transaction	PGE	PacifiCorp	Total
# of ESDs Receiving Funds	5	15	20
Total Fund Receipts	\$6,169,741	\$3,695,321	\$9,865,062
Expenditures			
Audits	\$142,193	\$243,173	\$385,366
Conservation Measures Installed	\$8,167,646	\$1,908,183	\$10,075,829
ESD and School District Administrative Expenses			\$311,854
ODOE Administrative Expenses			\$114,708
ODOE Program Expenses			\$272,265
Total Expenditures	\$8,309,839	\$2,151,356	\$11,160,022

RESULTS

To date, among the 857 schools that are eligible for PPC funds, 681 (79 percent) have completed audits. A total of 3,221 individual energy efficiency measures have been identified in these audits, and 710 (22 percent) of the energy efficiency measures have been implemented. To date, there has not been enough PPC funding available for school districts to implement all the measures identified in the energy audits.

Table 25 shows the results of audits completed during the January 2005 – June 2006 period. During this time, 143 audits were completed across 26 school districts. The audits identified 743 conservation measures that could be installed cost-effectively. If all of these measures were adopted, they would result in 9,535,854 kWh in electricity savings annually and 566,967 in therm savings for natural gas. The energy savings measures identified translate to \$1,321,389 in potential utility bill savings each year if all the measures identified in these audits are adopted.

Table 25: ESD Audit Results (1/2005 – 6/2006)

Audit Accomplishment	PGE	PacifiCorp	Total
# of Audits Completed	72	71	143
# of School Districts	9	17	26
# of Measures Identified	345	398	743
Simple Payback – Median Years	12.10	14.60	13.35
Simple Payback – Mean Years	16.16	20.67	18.41
Simple Payback – Years Range	0.1 - 89	0.1 – 84.9	N/A
Potential Savings Identified in Audits			
Electricity Savings (kWh)	3,260,114	6,275,740	9,535,854
Natural Gas Savings (therms)	149,035	417,932	566,967
Other Fuels (gal)	28,190	111,958	140,148
Total Annual Energy Cost Savings (\$)	\$431,305	\$890,084	\$1,321,389
Total Savings (Btu)	30,040,221,082	79,894,182,620	109,934,403,702
Total Cost of Measures Identified	\$6,773,221	\$17,543,636	\$24,316,857

PPC funds are also used to install the measures identified through the school audits, and the accomplishments related to actual measure installations are shown in Table 26. During the same period, 385 measures identified during audits were installed across 25 school districts. Measures that are typically installed include: Retrofitting T-12 lamps and magnetic ballasts with T8 or T5 lamps and electronic ballasts, replacing HID lighting with T5 fixtures, installing occupancy sensors for lighting and HVAC control, direct digital control systems to control lighting and heating and cooling equipment, HVAC distribution system upgrades, and boiler retrofits and replacement.. These measures are expected to save 7,621,345 kWh in electricity and 298,810 therms of natural gas annually. Total savings to the schools from the installation of these measures is estimated to be \$776,284 each year.

Table 26: ESD Efficiency Measures Installed (1/2005 – 6/2006)

Measure Accomplishment	PGE	PacifiCorp	Total
# of Audit Measures Installed	315	70	385
# of School Districts	15	10	25
Annual Savings			
Electricity Savings (kWh)	5,919,841	1,701,504	7,621,345
Natural Gas Savings (therms)	234,764	64,046	298,810
Other Fuels (gal)	44,024	10,564	54,588
Total Annual Energy Cost Savings (\$)	\$619,442	\$156,842	\$776,284
Total Annual Energy Savings (Btu)	50,188,965,333	13,796,433,152	63,985,398,485
Total Cost of Measures Installed	\$8,167,646	\$1,908,183	\$10,075,829

5. SELF-DIRECT CUSTOMERS

OVERVIEW

Large commercial and industrial energy customers who fund their own efficiency projects (self-direct customers) can waive a portion of their public purpose charge. The Oregon Department of Energy maintains a database to help these customers individually calculate their monthly PPC responsibility. First, self-direct customers submit notice of efficiency projects to the Department of Energy for approval; projects are certified when completed and certified project amounts are recorded on customers' accounts. These "credits" can then be applied to public purpose charges on customers' utility bills. Self-direct customers who use such credits still qualify for at least 50 percent of Energy Trust incentives for other energy projects at the same site. Forty large energy customers in the PGE and PacifiCorp territories are currently active in the self-direct program or have pending applications.

Note that available project credits can be carried forward month-to-month, so credits claimed do not necessarily equal project expenditures in a given period. From January 2005 to June 2006, self-direct customers in the PacifiCorp service territory claimed \$362,494 in credits for conservation and renewable resource projects, and customers in the PGE service territory claimed \$2,555,861. Combined, self-direct customers of both utilities claimed \$2,121,105 in conservation credit and \$797,250 in renewable resource credit from January 2005 to June 2006.

RESULTS

Table 27 summarizes self-direct program conservation activity from January 2005 through June 2006. During this period, self-direction sites implemented projects that involved controls, HVAC system improvements, industrial process modifications, lighting and motor improvements. PGE customers certified 9 conservation projects (3 in Clackamas County, 4 in Multnomah County, and 2 in Washington County) with a total eligible cost of \$495,421, and PacifiCorp customers certified 1 project (in Linn County) with a total eligible cost of \$1.15 million. The combined effect of these projects is about 6.2 million kWh in energy savings annually, or \$268,350 in annual energy cost savings.

**Table 27: Self-Direct Program Certified Conservation Projects
(1/2005 – 6/2006)**

	PGE	PacifiCorp	Total
Projects Certified	9	1	10
Total Eligible Cost	\$495,421	\$1,156,180	\$1,651,601
Total Energy Cost Savings (annual)	\$154,999	\$113,351	\$268,350
Total Energy Savings (annual kWh)	3,075,275	3,202,000	6,277,275

Table 28 summarizes self-direct program renewable energy projects from January 2005 through June 2006. One PGE customer certified a large biomass electricity generation project with a total above market cost of \$33.7 million. In addition, 9 PacifiCorp customers (9 sites) jointly certified

1 project in Jackson County with a total above market cost of about \$278,000. The combined effect of these projects is about 96 million kWh of renewable energy produced annually.

**Table 28: Self-Direct Program Certified Renewable Energy Projects
(1/2005 – 6/2006)**

	PGE	PacifiCorp	Total
Projects Certified	1	1	2
Total Above Market Cost	\$33,760,076	\$277,794	\$34,037,870
Total Energy Produced (annual kWh)	96,000,000	96,894	96,096,894

Table 29 summarizes self-direct program green tag renewable energy purchases from January 2005 through June 2006. PGE customers purchased over 54,000 green tags valued at \$851,333, and PacifiCorp customers purchased nearly 14,000 green tags valued at \$102,271. The combined effect of these contracts is about 68 million kWh of renewable energy purchased annually. The Oregon Department of Energy incurred administrative costs of \$15,083 and program expenses of \$41,578 to process all conservation, renewable energy, and green tag projects.

**Table 29: Self-Direct Program Green Tag Purchases
(1/2005 – 6/2006)**

	PGE	PacifiCorp	Total
Sites	12	2	14
Green Tags Purchased	54,220	13,816	68,036
Credits Issued	\$851,333	\$102,271	\$953,604
Energy Purchased (annual kWh)	54,219,000	13,815,400	68,034,400

6. SUMMARY

Table 30 summarizes the expenditures and results for PPC expenditures from January 2005 through June 2006. The agencies spent a combined total of \$94,272,090 on programs and projects completed during this period. Annual energy savings and renewable resource generation achieved from projects completed during this time reached 709,617,461 kWh (81 aMW), which is enough to power more than 48,000 average-sized homes each year.⁹ When all fuel types are included in addition to electricity, PPC expenditures resulted in annual savings of 2,459,898 million Btu.

Table 30: Summary of PPC Expenditures and Results (1/2005 – 6/2006)

Agency / Program	Expenditures	Results		
		kWh Saved or Generated	aMW	MMBtu
Energy Trust – Conservation	\$61,170,496	391,362,959	44.68	1,335,722
Energy Trust – Renewables*	4,003,901	126,700,320	14.46	432,428
Education Service Districts**	\$11,160,022	7,621,345	0.87	63,985
OHCS Low-Income***	\$14,962,655	13,524,268	1.54	46,158
Self-Direct Customers****	\$2,975,015	170,408,569	19.45	581,604
Total Expenditures	\$94,272,090	709,617,461	81.01	2,459,898

* Energy saved includes savings from reduced transmission and distribution losses. Renewable energy savings is from currently operational projects.

** MMBtu includes natural gas, propane and oil savings, in addition to electricity savings.

***Expenditures for the OHCS Low-Income program include expenditures from the Housing Trust Fund, which does not track energy savings for its projects.

****Expenditures listed for Self-Direct represent public purpose charges retained by the participating sites in lieu of making payments to the utilities, which are then distributed among the other agencies (e.g., Energy Trust)

⁹ Calculated using the Northwest Power Planning Council's estimate that an average megawatt is enough to power 600 homes each year (assuming electric heat).