

Report to Legislative Assembly on Public Purpose Expenditures

Final Report

ECONorthwest

ECONOMICS FINANCE PLANNING

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Acknowledgements

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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 levy a 3 percent fee on retail electricity sales beginning in March 2002. This Public Purpose Charge (PPC) 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.

The PPC funds are 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 and 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 is dedicated to conservation programs and 17 is dedicated 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; 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 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.

In September 2004, 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

¹ SB 1149 is codified in ORS 757.600, et. seq. ORS 757.612 specifically addresses the Public Purpose Charge.

- 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, 2003 – December 31, 2004 period. The far right column of the table shows the level of expenditure for these funds over the same period. Expenditures are less than disbursements in most cases; all administrators experience a lag between their receipt and disbursement of project funds, particularly the organizations that administer long-term projects. For a long-term project (such as a utility-scale wind farm), committed funds are not actually spent until the project is completed, a process that may take several years depending on project size and scope. As shown at the bottom of the table, PPC expenditures totaled \$99,299,547 across fund administrators. Administrative costs for agencies administering the PPC funds totaled \$6,509,000, or 6.6 percent of all expenditures during this period.

PPC Disbursements and Expenditures (1/2003 – 12/2004)

Fund Administrator / Program	Disbursement Source			Expenditure
	PGE	PacifiCorp	Total	Total
Energy Trust of Oregon				
Conservation	\$40,470,997	\$26,788,624	\$67,259,621	\$54,932,097
Renewable Energy	\$12,527,679	\$8,260,525	\$20,788,204	\$8,327,683
Administrative Expenses				\$5,240,732
Education Service Districts	\$7,694,472	\$4,909,148	\$12,603,620	\$8,850,394
ODOE Program Expenses				\$338,588
Administrative Expenses				\$690,290
Oregon Housing and Community Services				
Low-Income Weatherization*	\$9,042,349	\$5,732,472	\$14,774,821	\$10,176,374
Low-Income Housing	\$3,477,827	\$2,204,893	\$5,682,720	\$2,143,507
Administrative Expenses				\$519,717
Evaluation, Training, Technical Assistance				\$177,094
Self-Direct Customers**	\$6,599,183	\$1,303,888	\$7,903,071	\$7,753,128
ODOE Program Expenses				\$91,682
Administrative Expenses				\$58,261
Totals	\$79,812,507	\$49,199,550	\$129,012,057	\$99,299,547
Administrative Costs Only				\$6,509,000

* 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 expenditures for conservation and renewable resource projects by private customers rather than disbursements by utilities; the amounts are listed as such only to provide a utility-level breakdown of project expenditures. For further explanation see section 5, Self-Direct Customers. Note also that ECONorthwest allocated the Self-Direct administrative costs proportionately across PGE and PacifiCorp based on the project expenditures provided.

The table below summarizes the expenditures and results for PPC expenditures from January 2003 through December 2004. The agencies spent a combined total of \$99,299,547 on programs and projects completed during this period. Annual energy savings and renewable resource generation achieved from projects completed during this time reached 546,998,568 kWh (just over 62 aMW), which is enough to power more than 37,000 average-sized homes each year.² When all fuel types are included in addition to electricity, PPC expenditures resulted in annual savings of 1,904,555 million Btu.

² Calculated using the Northwest Power Planning Council's estimate that an average megawatt is enough to power 600 homes each year (assuming electric heat).

Summary of PPC Expenditures and Results (1/2003 – 12/2004)

Agency / Program	Expenditures	Results		
		kWh Saved or Generated*	aMW	MMBtu
Energy Trust - Conservation	\$59,348,107	339,337,857	38.74	1,158,160
Energy Trust - Renewables	\$9,152,405	126,137,868	14.40	430,509
Education Service Districts	\$9,879,272	7,950,394	0.91	64,784
OHCS Low-Income**	\$13,016,692	16,674,884	1.90	56,911
Self-Direct Customers	\$7,903,071	56,897,565	6.50	194,191
Total Expenditures	\$99,299,547	546,998,568	62.44	1,904,555

* Does not include savings from transmission and distribution.

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

The table below provides information on the cost effectiveness of PPC spending in terms of expenditures per kWh or Btu of energy saved or generated. In general, expenditures per kWh achieved ranged from \$0.01/kWh for Energy Trust Renewables to \$0.10/kWh for the Education Service Districts. For overall PPC expenditures the average was \$0.02 per kWh achieved. Note that with some programs, such as the Education Service District and the Low Income programs, the programs pay for the full cost of the equipment installed, which will increase the \$/kWh value.

To complete the \$/kWh and \$/MMBtu calculations, ECONorthwest assigned expected measure lives based on a general average for each program and the values used by the Northwest Power Planning Council in its Fifth Power Plan and by the California PUC for its energy conservation programs³ (assumed values are reported in the table below.) While most measures have expected useful lives of 15 years, some were significantly longer (such as 70 years for new construction), and these values were capped at 25 years for this calculation. ECONorthwest also assigned a value of 12 years (rather than 15) for the Energy Trust Residential Conservation programs account for the shorter expected measure of compact fluorescent lamps and appliances.

The cost effectiveness calculation also adjusts the kWh value to account for the fact that some of the achieved savings would have occurred without PPC spending. This is done using a “net-to-gross” ratio that reflects the net result of PPC programs. For example, the net-to-gross ratio of 0.80 used for the Energy Trust Conservation programs means that 20 percent of the savings could have been expected to occur without the programs. The net-to-gross values were assigned by ECONorthwest based on recommended values used by the California PUC for energy conservation programs within that state. A net-to-gross value of 1.0 is used for the Energy Trust

³ See the *California Energy Efficiency Policy Manual*, California Public Utilities Commission, (October 2001).

Renewables, Education Service Districts, and Low Income programs, as none of these accomplishments were likely to have occurred without PPC funding.

Finally, it should be noted that the cost effectiveness numbers presented here are only generalized estimates. Typically, these calculations are done at either a program or measure level after a detailed evaluation has identified a program-specific (and sometimes measure-specific) net-to-gross ratio. The Energy Trust is currently conducting these types of evaluation studies for its conservation programs. An extensive evaluation was not conducted as part of this report and key parameters such as measure life and the net-to-gross ratio are taken from secondary sources. As a consequence, the values presented below should be considered only as a general estimate of cost effectiveness and are used here simply to provide a relative comparison across programs.

Comparison of Spending and Accomplishments

Agency / Program	Expenditures	Assumed Measure Life	Assumed Net-to-Gross Ratio	\$/ kWh (Levelized) **	\$ / MMBtu (Levelized) **
Energy Trust Conservation – Residential Sector	\$14,064,337	12	0.80	\$0.02	\$5.89
Energy Trust Conservation – Nonresidential Sector	\$45,283,770	15	0.80	\$0.02	\$6.06
Energy Trust - Renewables	\$9,152,405	15	1.0	\$0.01	\$1.91
Education Service Districts *	\$8,611,989	15	1.0	\$0.10	\$11.96
OHCS Low-Income***	\$13,016,692	25	1.0	\$0.05	\$14.64
Self-Direct Customers	\$7,903,071	15	0.53	\$0.02	\$6.91
Total	\$98,032,264			\$0.02	\$5.51

* Costs for audits performed at schools where efficiency equipment had not yet been installed are removed from the expenditure total for this calculation.

** The levelized cost calculations uses a 4 percent discount rate, which is the rate used by the Northwest Power Planning Council in its Fifth Power Plan for similar calculations.

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

In addition to projects that were completed in 2003 and 2004, some of the PPC funds were committed to projects that were initiated during this period but were not completed as of December 2004. These commitments are shown along with expenditures in the table below. Note that the committed funds include only those amounts earmarked for specific projects and does not include funds reserved for other program-related activities such as evaluation, management, and program implementation.

The project fund commitments and their expected results in terms of kWh saved or generated are also shown in the table below and PPC fund commitments amounted to \$27,819,478 across all agencies. When the committed projects are completed, they are expected to almost double the

kWh achieved (either through conservation or renewable generation) from 546,998,568 to 1,017,194,173.

Summary of PPC Expenditures and Commitments (1/2003 – 12/2004)

Agency / Program	Receipts	Expenditures	Committed Funds	KWh Achieved Completed Projects Only	KWh Achieved Including Commitments *
Energy Trust - Conservation	\$67,259,621	\$59,348,107	\$11,151,507	339,337,857	530,559,062
Energy Trust - Renewables	\$20,788,204	\$9,152,405	\$1,056,104	126,137,868	385,365,540
Education Service Districts**	\$12,603,620	\$9,879,272	\$8,659,493	7,950,394	13,153,556
OHCS Low-Income**	\$20,457,541	\$13,016,692	\$6,952,374	16,674,884	31,218,450
Self-Direct Customers***	\$7,903,071	\$7,903,071	N/A	56,897,565	56,897,565
Total	\$129,012,057	\$99,299,547	\$27,819,478	546,998,568	1,017,194,173

*The achievements with commitments do not include non-electric fuel savings achieved by the Educational Service Districts or the non-energy accomplishments from the Low Income Housing projects.

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

***The amounts listed as Self-Direct receipts represent expenditures for conservation and renewable resource projects by private customers rather than disbursements by utilities; the amounts are listed as such only to keep totals consistent throughout the report. For further explanation see section 5, Self-Direct Customers.

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 PGE and PacifiCorp service territories⁴. As part of SB 1149, these utilities were required to levy a 3 percent fee on retail electricity sales beginning in March 2002. This Public Purpose Charge (PPC) 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 September 2004, 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

⁴ SB 1149 is codified in ORS 757.600, et. seq. ORS 757.612 specifically addresses the Public Purpose Charge.

- 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 in 2003 and 2004. 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 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 2003 through December 2004 (see Table 2).

Figure 1: PPC Fund Allocation by Administrator and Program (1/2003-12/2004)⁵

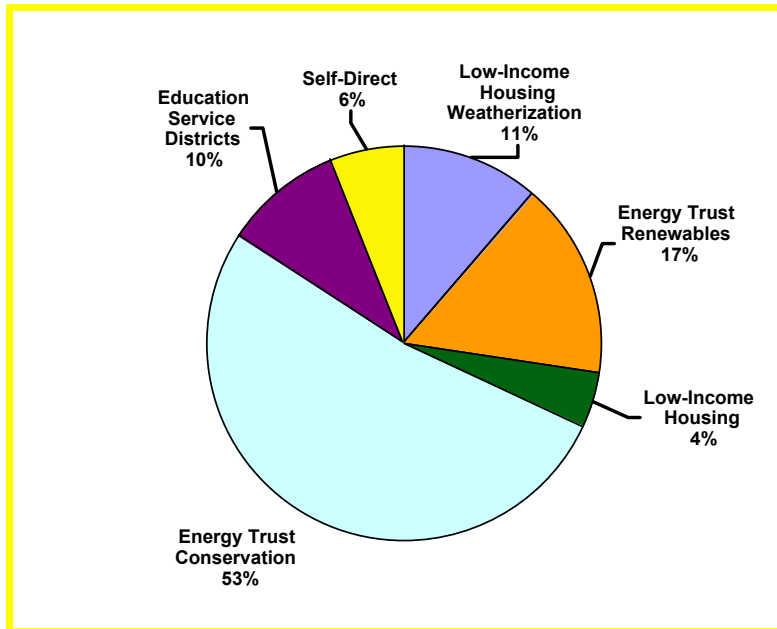
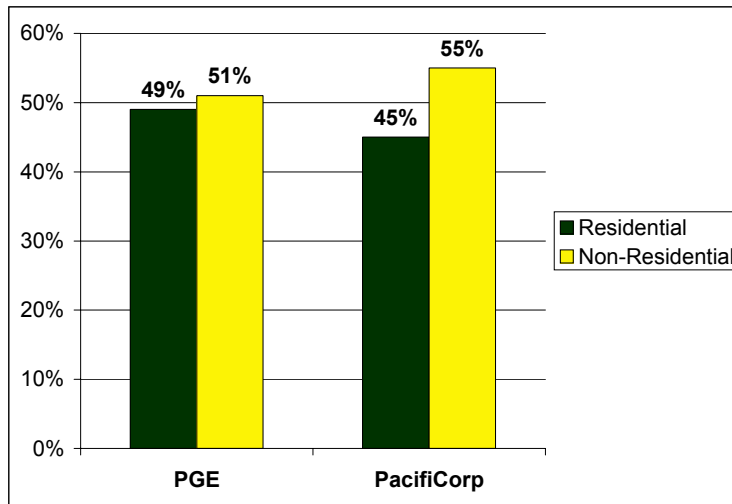


Figure 2 shows the total PPC fund collections for the January 2003 – December 2004 period divided among residential and non-residential ratepayers for each utility.⁶ For both utilities, the residential sector contributes just under half of the total PPC funds collected.

Figure 2: Sector Contribution of PPC Funds by Utility

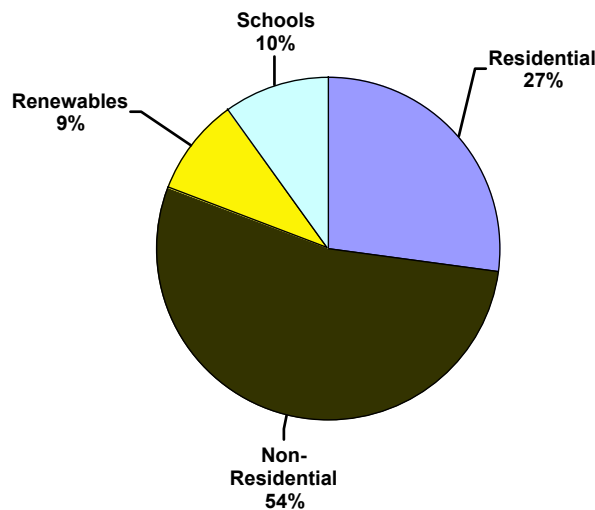


⁵ Note that the graph includes the self-direct expenditures, and consequently the allocation percentages do not coincide with the PPC disbursement information discussed above, which are based on total *collected* PPC funds.

⁶ The sector share was calculated by each utility based on revenues received from January 2003 thru December 2004. Because of the seasonal nature of energy consumption, this distribution will vary depending on the time period.

Figure 3 shows how PPC fund expenditures by the various agencies and programs are distributed among economic sectors. The residential sector (covered by the OHCS and Energy Trust residential conservation programs) received 27 percent of expenditures from January 2003 to December 2004. This is less than the contribution that the residential sector makes to PPC funds (which ranges from 49 percent for PGE to 45 percent for PacifiCorp), but residential customers benefit indirectly from conservation achievements in the industrial sector and in public schools. Over the same timeframe, schools received 10 percent of expenditures, 11 percent of expenditures were spent on renewable resource development, and 54 percent of expenditures were spent on programs for nonresidential customers.

Figure 3: Distribution of PPC Expenditures



RECEIPT AND EXPENDITURE SUMMARY

This report details Public Purpose Charge (PPC) expenditures from January 1, 2003 through December 31, 2004. Table 1 shows the total funds collected during this period from both PGE and PacifiCorp. Over this 18-month period, \$79,812,507 in PPC funds was disbursed by PGE and \$49,199,550 was disbursed by PacifiCorp for a total of \$129,012,057 in PPC funds allocated for conservation and renewable energy programs across agencies. The utilities spent a combined total of \$91,723 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 (1/2003 – 12/2004)

Source	PPC Disbursements	Administrative Expenses
PGE	\$79,812,507	\$59,818
PacifiCorp	\$49,199,550	\$31,905
Total	\$129,012,057	\$91,723

Table 2 provides additional detail on the disbursement across the various programs for the January 2003 – December 2004 period. The far right column of the table shows the level of expenditure for these funds over the same period. Expenditures are less than disbursements in some cases; all agencies experience a lag between their receipt and disbursement of project funds, particularly the agencies that administer long-term projects. For a long-term project (such as a utility-scale wind farm), committed funds are not actually spent until the project is completed, a process that may take several years depending on project size and scope. As shown at the bottom of the table, PPC expenditures totaled \$99,299,547 across fund administrators. Administrative costs for agencies administering the PPC funds were \$6,509,000, or 6.6 percent of total expenditures during this period.

Table 2: PPC Disbursements and Expenditures (1/2003 – 12/2004)

Fund Administrator / Program	Disbursement Source			Expenditure
	PGE	PacifiCorp	Total	Total
Energy Trust of Oregon				
Conservation	\$40,470,997	\$26,788,624	\$67,259,621	\$54,932,097
Renewable Energy	\$12,527,679	\$8,260,525	\$20,788,204	\$8,327,683
Administrative Expenses				\$5,240,732
Education Service Districts	\$7,694,472	\$4,909,148	\$12,603,620	\$8,850,394
ODOE Program Expenses				\$338,588
Administrative Expenses				\$690,290
Oregon Housing and Community Services				
Low-Income Weatherization*	\$9,042,349	\$5,732,472	\$14,774,821	\$10,176,374
Low-Income Housing	\$3,477,827	\$2,204,893	\$5,682,720	\$2,143,507
Administrative Expenses				\$519,717
Evaluation, Training, Technical Assistance				\$177,094
Self-Direct Customers**	\$6,599,183	\$1,303,888	\$7,903,071	\$7,753,128
ODOE Program Expenses				\$91,682
Administrative Expenses				\$58,261
Totals	\$79,812,507	\$49,199,550	\$129,012,057	\$99,299,547
Administrative Costs Only				\$6,509,000

* 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 expenditures for conservation and renewable resource projects by private customers rather than disbursements by utilities; the amounts are listed as such only to provide a utility-level breakdown of project expenditures. For further explanation see section 5, Self-Direct Customers. Note also that ECONorthwest allocated the Self-Direct administrative costs proportionately across PGE and PacifiCorp based on the project expenditures provided.

Table 3 shows the timing of PPC receipts and expenditures since 2002 for each agency. Unexpended funds from 2002 are added to receipts from the January 2003 – December 2004 period, and expenditures over this same period are subtracted to determine the unspent funds as of December 31, 2004. Where available, committed funds for this period are included in the table as expenditures to ensure that the remaining 2004 funds reflect PPC funds yet to be allocated to specific projects.

Table 3: Cumulative PPC Receipts and Expenditures (1/2003-12/2004)

Fund Administrator / Program	2002 Carry Forward*	1/2003-12/2004 Receipts	1/2003-12/2004 Expenditures	2004 Remaining
Energy Trust of Oregon				
Conservation	\$3,899,344	\$67,259,621	\$59,348,107	\$11,810,858
Renewable Energy	\$6,763,779	\$20,788,204	\$9,152,405	\$18,399,578
Education Service Districts	\$3,222,625	\$12,603,620	\$9,879,272	\$5,946,973
Oregon Housing and Community Services**	\$5,499,892	\$20,457,541	\$13,016,692	\$12,940,741
Self-Direct Customers***	\$0	\$7,903,071	\$7,903,071	\$0
Totals	\$19,385,640	\$129,012,057	\$99,299,547	\$49,098,150

*2002 Carryover amounts calculated by ECONorthwest using data from the prior PPC fund report *Report to Legislative Assembly on Public Purpose Expenditures for the Period March 1 – December 31, 2002* (March 18, 2003). The previously reported carryover amounts for the Energy Trust of Oregon have been modified from the earlier report to incorporate the final numbers from their 2002 audited financial statements, which were published after the prior Report to the Legislature.

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

***The receipt amounts listed for Self-Direct represent expenditures for conservation and renewable resource projects by private customers rather than disbursements by utilities; the amounts are listed as such only to keep totals consistent throughout the report.

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 to support its ongoing energy efficiency market transformation programs.⁷

During 2003, Energy Trust introduced its first long-term programs to serve major markets. Table 4 provides a summary of Energy Trust PPC revenues and expenditures from January 1, 2003 through December 31, 2004. Funds received by Energy Trust during this period totaled \$88,047,825, and expenditures totaled \$68,500,512. Administrative expenses totaled \$5,240,732 and comprised 7.7 percent of total spending by Energy Trust on conservation and renewable programs and 6.0 percent of total PPC receipts during this period.⁸

⁷ The Energy Trust also administers residential and commercial conservation programs for Northwest Natural Gas Company under the terms of a stipulation with the PUC.

⁸ Administrative expenses used here and in subsequent tables are defined using use the common administrative expense definition discussed in the introduction of this report.

Table 4: Energy Trust Receipt and Expenditure Summary (1/2003 – 12/2004)

Transaction	PGE	PacifiCorp	Total
Total Fund Receipts	\$52,998,676	\$35,049,149	\$88,047,825
Expenditures			
Energy Conservation	\$25,690,223	\$29,241,874	\$54,932,097
Renewable Energy	\$1,382,873	\$6,944,810	\$8,327,683
Administrative Expenses	\$2,753,888	\$2,486,844	\$5,240,732
Total Expenditures	\$29,826,983	\$38,673,529	\$68,500,512

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 2003 – December 2004 period, \$67,259,621 in PPC funds was available to Energy Trust for spending on these programs. Conservation program expenditures totaled \$59,348,106 during this same period. Administrative costs that could be directly assigned to Energy Trust conservation programs totaled \$4,416,010, or 7.4 percent of total conservation program spending and 6.6 percent of total PPC receipts for conservation programs.

Table 5: Energy Trust Conservation Receipts and Expenditures (1/2003 – 12/2004)

Transaction	PGE	PacifiCorp	Total
Fund Receipts	\$40,470,997	\$26,788,624	\$67,259,621
Expenditures			
Program Expenditures	\$25,690,222	\$29,241,874	\$54,932,096
Administrative Expenses	\$2,394,717	\$2,021,293	\$4,416,010
Total Expenditures	\$28,084,939	\$31,263,167	\$59,348,106

Results

Energy Trust conservation activities consisted of design and delivery of conservation programs targeted for different market sectors with a wide range of energy saving measures. Table 6 shows accomplishments for individual programs sponsored by the Energy Trust. During the period covered by this report, the programs funded through the Northwest Energy Efficiency Alliance and the utility transition programs accounted for most of the energy savings achieved by the Energy Trust.

Table 6: Energy Trust Conservation Programs Summary (1/2003-12/2004)

Program Name	Completed Projects	Savings (aMW)	Spending (\$)
Home Energy Savings	21,512	2.997	\$8,769,416
Efficient Home Products	4,822	0.306	\$930,483
Efficient New Homes	25	0.001	\$635,098
Building Efficiency	852	5.666	\$8,820,645
New Building Efficiency	11	0.080	\$1,434,953
LED Traffic Signal	6,609*	0.382	\$388,603
Efficient Facilities Operations	1	0.118	\$41,460
Production Efficiency	243	10.671	\$17,710,320
Solar Water Heating	30	0.007	\$209,055
NEEA Market Transformation	--	8.492	\$6,520,631
Utility Transition	2,793	9.595	\$13,887,442
Pilots**	2,066	0.417	--

* LED lamps installed

**Expenditures for pilot programs have been incorporated into the other program expenditures as these programs have developed into established programs.

In 2004, Energy Trust also began working with the Oregon Department of Energy on a major project with the Blue Heron Paper Company at its Oregon City plant. This project will modernize and expand Blue Heron’s pulp de-inking process and is expected to yield 106 million kWh in electricity savings—almost half of the Energy Trust’s 2004 energy efficiency savings goal of 276 million kWh. In addition to the funds it receives from Energy Trust, this project is also receiving financial support from the Oregon Department of Energy, Business Energy Tax Credit Partners, and the Climate Trust.

Table 7 provides additional detail on the conservation project achievements for the January 2003 – December 2004 period. During this same period, Energy Trust committed to funding projects that are expected to deliver an additional 24.2 aMW in electricity savings.

Table 7: Energy Trust Conservation Savings Achievements (1/2003 – 12/2004)

	PGE		PacifiCorp		Combined		Committed
	KWh	aMW	KWh	aMW	kWh	aMW	aMW
2003	80,511,785	9.2	57,997,232	6.6	138,509,017	15.8	--
2004	75,406,219	8.6	125,383,527	14.3	200,773,635	22.9	24.2
Total	155,918,004	17.8	183,380,759	20.9	339,283,441	38.7	24.2

RENEWABLE ENERGY

Receipts and Expenditures

Table 8 shows the PPC fund receipts and expenditures dedicated to Energy Trust renewable energy programs from January 1, 2003 through December 31, 2004. During this period, \$20,788,204 in PPC funds was allocated to Energy Trust for renewable energy projects, and renewable energy program spending totaled \$9,152,405. Administrative costs related to the renewable energy program totaled \$824,722 and comprised 9.0 percent of total renewable energy program spending by Energy Trust and 4.0 percent of the PPC receipts designated for the renewable energy programs.

Table 8: Energy Trust Receipts and Renewable Expenditures (1/2003 – 12/2004)

Transaction	PGE	PacifiCorp	Total
Fund Receipts	\$12,527,679	\$8,260,525	\$20,788,204
Expenditures			
Program Expenditures	\$1,382,873	\$6,944,810	\$8,327,683
Administrative Expenses	\$359,170	\$465,552	\$824,722
Total Expenditures	\$1,742,043	\$7,410,362	\$9,152,405

Results

In 2003, Energy Trust began full-scale implementation of several renewable energy programs; program results are summarized in Table 9. The largest amount of new renewable energy capacity was achieved through the Utility-Scale Renewables program. Projects were acquired through a competitive solicitation process conducted in partnership with PacifiCorp and PGE. The first project, the Combine Hills Wind Farm, came online in late 2003 in PacifiCorp's service territory. The program has committed \$13.75 million to assist PGE and PacifiCorp with more large-scale projects resulting from RFP's issued in 2004. In terms of individual projects, the Solar Electric Program saw the greatest level of participation; the Program is designed to provide homeowners and businesses with financial incentives to adopt solar power applications. Note that several programs such as Biomass and Geothermal are still in the development stage and do not yet have any accomplishments.

Table 9: Energy Trust Renewable Energy Programs Summary (1/2003-12/2004)

Program Name	Completed Projects	Generation (aMW)	Spending
Utility-Scale Renewables	1	14.250	\$4,489,096
Solar Electric	114	0.079	\$3,657,561
Open Solicitation	3	0.045	\$606,960
Biomass	(In Development Phase)	N/A	\$98,221
Geothermal	(In Development Phase)	N/A	\$6,640
Small Wind	(In Development Phase)	N/A	\$293,926
Anemometer Loan Program	6	N/A	--

Additional information on the Energy Trust’s renewable energy accomplishments is summarized in Table 10 by utility territory. In addition to 14.376 aMW in completed projects, an additional 29.323 aMW of renewable energy projects had been committed as of December 31, 2004.

Table 10: Energy Trust Renewable Energy Achievements (1/2003 – 12/2004)

	aMW Installed			Committed aMW
	PGE	PacifiCorp	Combined aMW	
2003	0.022	14.272	14.294	
2004	0.008	0.074	0.082	29.323
Total	0.030	14.346	14.376	29.323

3. OREGON HOUSING AND COMMUNITY SERVICES

OVERVIEW

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, 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 11 provides a summary of the housing portion of PPC fund receipts and expenditures from January 1, 2003 through December 31, 2004. Funds received by Oregon Housing and Community Services during this period amounted to \$20,457,541, and expenditures totaled \$19,969,066. (Note: this expenditure value includes \$6,952,374 in funds committed to projects that are not yet completed.)

Table 11: OHCS Receipt and Expenditure Summary (1/2003 – 12/2004)

Transaction	PGE	PacifiCorp	Total
Low-Income Weatherization			
Administration	\$452,117	\$286,624	\$738,741
Evaluation, Training, and Technical Assistance	\$452,117	\$286,624	\$738,741
ECHO	\$7,537,782	\$4,764,957	\$12,302,738
Multi-Family Rental Housing	\$600,333	\$394,268	\$994,601
Total Low-Income Weatherization	\$9,042,349	\$5,732,472	\$14,744,821
Total Low-Income Housing	\$3,477,827	\$2,204,893	\$5,682,720
Total Fund Receipts	\$12,520,176	\$7,937,365	\$20,457,541
Expenditures			
Low-Income Weatherization*	\$5,831,085	\$4,345,289	\$10,176,374
Committed but unexpended	\$2,120,441	\$1,567,888	\$3,688,329
Low-Income Housing			\$2,143,507
Committed but unexpended			\$3,264,045
Administrative Expenses			\$519,717
Evaluation, Training, Technical Assistance			\$177,094
Total Expenditures (w/o Committed)	\$5,831,085	\$4,345,289	\$13,016,692
Total Expended and Committed	\$7,951,526	\$5,913,177	\$19,969,066

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

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

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 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 12 shows PPC fund receipts and expenditures for the low-income housing program. During the January 2003 – December 2004 period, a total of \$5,682,720 in PPC funds was 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 \$2,143,507. Funds to pay project costs totaling \$3,264,045 were obligated but not spent as of December 31, 2004.

**Table 12: Low-Income Housing Program Receipts and Expenditures
(1/2003 – 12/2004)**

Transaction	Total
Fund Receipts*	\$5,682,720
Expenditures	
Committed but unexpended	\$3,264,045
Expenditures	\$2,143,507
Total Expended and Committed	\$5,407,552

* Fund receipts reported by PacifiCorp to the PUC for the individual low-income programs differ from the utility reported disbursements analyzed for this report by approximately \$52. The total amount received by OHCS is consistent, the discrepancy occurs only with the allocation across the low-income housing and weatherization programs.

Results

Key accomplishments for the low-income housing program during the January 2003 – December 2004 period include the following:

- Seventy-one multi-family housing projects received HDGP awards that were either fully or partially funded with PPC revenue.
- Projects representing the construction or rehabilitation of 1,594 affordable units; and
- HDGP awards leveraging total project costs of \$159.5 million.

Additional detail on program accomplishments, including the characteristics of the low-income families served, is shown in Table 13.

Table 13: Low-Income Housing Accomplishments (1/2003-12/2004)

Accomplishment	Total
Number of Projects	71
Number of Units*	1,594
Population Served (# of housing units)	
Elderly	364
Families	821
Special Needs (# of housing units)	
Special Needs Groups**	253
Farm Workers	156
Units where household income is less than 60 percent of the area median income (Household income between 51-60%)	444
Units where household income is less than 50 percent the area median income (Household income between 41-50%)	713
Units where household income is less than 40 percent the area median income (Household income between 31-40%)	192
Units where household income is less than 30 percent the area median income	192

*The total number of units overstates 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, and all units at a project location are not necessarily 100 percent reserved for low-income housing.

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

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 1 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 14 shows the PPC fund receipts and expenditures allocated for low-income home weatherization. During this period, a total of \$994,601 in PPC funds was allocated to Oregon Housing and Community Services to support weatherization of rental housing projects within the State. Commitments in the amount of \$1,880,514 were made to projects during this period. Since housing developments take upwards of two years to complete construction, expenditures on projects during this period were \$881,987.

**Table 14: Low-Income Weatherization (Multi-Family Rental Housing)
Receipts and Expenditures (1/2003 – 12/2004)**

Transaction	PGE	PacifiCorp	Total
Fund Receipts	\$600,333	\$394,268	\$994,601
Expenditures			
Committed but unexpended	\$482,411	\$516,116	\$998,527
Expenditures	\$637,296	\$244,691	\$881,987
Total Expended and Committed	\$1,119,707	\$760,807	\$1,880,514

Results

Key accomplishments for the January 2003 – December 2004 period include the following:

- 28 housing projects estimated to assist 1,501 households across Oregon were funded during this period with a combined total cost of almost \$149 million; and
- these 28 projects are expected to produce more than 2.1 million kWh in electricity savings in the first year of operation.

The low-income weatherization accomplishments are summarized in Table 15.

Table 15: Low-Income Weatherization (Multi-Family Rental Housing) Accomplishments (1/2003 – 12/2004)

Accomplishment	Total
Number of Projects	28
Number of Units*	1,501
Estimated kWh Savings	2,131,318
Population Served (# of housing units)	
Elderly	431
Families	871
Special Needs (# of housing units)	
Special Needs Groups**	86
Farm Workers	48
Units where household income is less than 60 percent of the area median income	750
Units where household income is less than 50 percent of the area median income	584
Units where household income is less than 40 percent of the area median income	72
Units where household income is less than 30 percent of the area median income	62

*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.

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 16 shows the PPC fund receipts and expenditures allocated for low-income home weatherization. During this period, \$12,302,738 in PPC funds was designated for low-income weatherization from January 1, 2003 to December 31, 2004. Expenditures on completed weatherization projects during the same period totaled \$9,294,387 with an additional \$2,689,802 reserved for projects that had not been completed as of December 31, 2004.

Table 16: Low-Income Weatherization (ECHO) Program Receipts and Expenditures (1/2003-12/2004)

Transaction	PGE	PacifiCorp	Total
Fund Receipts	\$7,537,782	\$4,764,957	\$12,302,738
Expenditures			
Committed but unexpended	\$1,638,030	\$1,051,772	\$2,689,802
Expenditures	\$5,193,789	\$4,100,598	\$9,294,387
Total Expended and Committed	\$6,831,819	\$5,152,370	\$11,984,189

Results

The low-income weatherization accomplishments are summarized in Table 17. Since the beginning of 2003, this program resulted in the weatherization of 3,826 homes with a combined estimated electricity savings of 14,543,566 kWh. These program efforts have directly benefited 8,880 people, the majority of whom are in demographic groups that tend to include the elderly, disabled individuals, and young children.

Table 17: Low-Income Weatherization (ECHO) Program Accomplishments (1/2003-12/2004)

Accomplishment	Total
Number of Homes Weatherized	3,826
Annual kWh Savings	14,543,566
Total Population Served	8,880
Special Target Populations Served	
Elderly (>60 years old)	1,721
Children (<6 years old)	1,131
Handicapped	1,573
Farm Workers	123
Native American	157
Hispanic	1,090
African American	199
Asian	61

4. EDUCATIONAL SERVICE DISTRICTS

OVERVIEW

Each year, 10 percent of PPC funds are allocated to the 17 Educational Service Districts (ESD's) located within PGE and PacifiCorp service territories; statewide, 857 schools (110 districts and 396,980 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. Once 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. Once 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 18 provides a summary of the ESD portion of PPC fund receipts and expenditures from January 1, 2003 through December 31, 2004. 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 \$690,290 and comprise 7.0

percent of total expenditures over this period and 5.6 percent of the PPC allocated to Oregon schools.

Table 18: ESD Receipt and Expenditure Summary (1/2003 – 12/2004)

Transaction	PGE	PacifiCorp	Total
# of ESD's Receiving Funds	5	15	20
Total Fund Receipts	\$7,694,472	\$4,909,148	\$12,603,620
Expenditures			
Audits	\$1,068,492	\$653,445	\$1,721,937
Conservation Measures Installed	\$2,823,893	\$4,304,564	\$7,128,457
ESD and School District Administrative Expenses			\$524,832
ODOE Administrative Expenses			\$165,458
ODOE Program Expenses			\$338,588
Total Expenditures	\$3,892,385	\$4,958,009	\$9,879,272

RESULTS

Table 19 shows the results of audits completed during the January 2003 – December 2004 period. During this time, 430 audits were completed across 69 school districts. The audits identified 3,661 conservation measures that could be installed cost-effectively. If all of these measures were adopted, they would result in 42,670,990 kWh in electricity savings annually and 3,764,615 in therm savings for natural gas. The energy savings measures identified translate to \$6,243,629 in potential utility bill savings each year if all the measures identified in these audits are adopted.

Table 19: ESD Audit Results (1/2003 – 12/2004)

Audit Accomplishment	PGE	PacifiCorp	Total
# of Audits Completed	251	179	430
# of School Districts	25	44	69
# of Measures Identified	2,003	1,658	3,661
Potential Savings Identified in Audits			
Electricity Savings (kWh)	23,279,505	19,391,485	42,670,990
Natural Gas Savings (therms)	2,012,096	1,752,519	3,764,615
Other Fuels (gal)	323,701	255,001	578,702
Total Annual Energy Cost Savings (\$)	\$3,491,533	\$2,752,096	\$6,243,629
Total Savings (Btu)	328,780,269,565	276,986,490,905	605,766,760,470
Total Cost of Measures Identified	\$53,407,222	\$31,562,331	\$84,969,553

PPC funds are also used to install the measures identified through the audits at these schools. The accomplishments related to actual measure installations are shown in Table 20. During the same period, 304 measures identified during the audits were installed across 30 school districts. These measures are expected to save 7,950,394 kWh in electricity and 246,200 therms of natural gas annually. Total savings to the schools from the installation of these measures is estimated to be \$735,236 each year.

Table 20: ESD Efficiency Measures Installed (1/2003 – 12/2004)

Audit Accomplishment	PGE	PacifiCorp	Total
# of Audits Measures Installed	176	128	304
# of School Districts	13	17	30
Annual Savings			
Electricity Savings (kWh)	2,725,164	5,225,230	7,950,394
Natural Gas Savings (therms)	86,297	159,903	246,200
Other Fuels (gal)	36,075	55,249	91,324
Total Annual Energy Cost Savings (\$)	\$275,766	\$459,470	\$735,236
Total Annual Energy Savings (Btu)	23,270,965,532	41,512,940,590	64,783,906,122
Total Cost of Measures Installed	\$2,823,893	\$4,304,564	\$7,128,457

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.

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 2003 to December 2004, self-direct customers in the PacifiCorp service territory claimed \$1,103,973 in credits for conservation and renewable resource projects, and customers in the PGE service territory claimed \$3,631,725. Combined, self-direct customers of both utilities claimed \$3,914,334 in conservation credit and \$821,364 in renewable resource credit from January 2003 to December 2004.

RESULTS

Table 21 summarizes self-direct program activity from January 2003 through December 2004. As the table demonstrates, PGE serves the majority of self-direct customers: PGE customers certified 33 conservation projects with a total eligible cost of \$6.5 million, and PacifiCorp customers certified 21 projects with a total eligible cost of \$1.3 million. The combined effect of these projects is about 110.9 million kWh in energy savings annually, or \$3.0 million in annual energy cost savings.

**Table 21: Self-Direct Program Certified Conservation Projects
(1/2003 – 12/2004)**

	PGE	PacifiCorp	Total
Projects Certified	33	21	54
Total Eligible Cost	\$6,473,978	\$1,279,150	\$7,753,128
Total Energy Cost Savings (annual)	\$2,782,705	\$238,762	\$3,021,467
Total Energy Savings (annual kWh)	50,864,312	6,033,253	56,897,565
ODOE Program Expenses	--	--	\$91,682
ODOE Administrative Expenses			\$58,261

6. SUMMARY

Table 22 summarizes the expenditures and results for PPC expenditures from January 2003 through December 2004. Across all administrators, a total of \$99,299,547 was spent on programs and projects completed during this period. Annual energy savings and renewable

resource generation achieved from projects completed during this time reached 546,998,568 kWh (over 62 aMW), which is enough to power more than 37,000 average-sized homes each year.⁹ When all fuel types are included in addition to electricity, PPC expenditures resulted in annual savings of 1,904,555 million Btu.

Table 22: Summary of PPC Expenditures and Results (1/2003 – 12/2004)

Agency / Program	Expenditures	Results		
		kWh Saved or Generated*	aMW	MMBtu
Energy Trust - Conservation	\$59,348,107	339,337,857	38.74	1,158,160
Energy Trust - Renewables	\$9,152,405	126,137,868	14.40	430,509
Education Service Districts**	\$9,879,272	7,950,394	0.91	64,784
OHCS Low-Income	\$13,016,692	16,674,884	1.90	56,911
Self-Direct Customers	\$7,903,071	56,897,565	6.50	194,191
Total Expenditures	\$99,299,547	546,998,568	62.44	1,904,555

* Does not include savings from transmission and distribution.

** Does not include savings for natural gas or fuels other than electricity in the \$/kWh value. All fuels included in the \$/MMBtu calculation.

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).