



Report to Legislative Assembly on Public Purpose Expenditures

January 2015 – December 2016

FINAL 2 Year Report

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1 Executive Summary

1.1 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 territories.¹ As part of SB 1149, these utilities were required to collect a 3 percent charge on their retail electricity sales beginning in March 2002. This public purpose charge (PPC) is used to fund cost-effective energy conservation and the above-market costs of renewable energy resources and to help provide weatherization and other energy assistance to low-income households and public schools.

Oregon has a 30-year history of using ratepayer funding for conservation and renewable programs prior to SB 1149. Before 2002, utilities administered conservation programs using ratepayer funds. Under SB 1149, investor-owned electric utility programs are funded by ratepayers (through the public purpose charge) and responsibility for running programs was assigned to program administrators. The administrators of the various programs funded with the public purpose charge are:

- **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, lower the costs of renewable energy resource system installations and transform markets to efficient products and services in the service areas of Portland General Electric and PacifiCorp. 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.
- **School Districts.** Oregon has 112 school districts within PGE and PacifiCorp service territories. The districts collectively receive 10 percent of public purpose charge funds to improve energy efficiency in individual schools. Prior to June 2011, when House Bill 2960 (HB 2960) was passed, these funds were distributed to 16 Educational Service Districts.
- **Oregon Housing and Community Services.** Oregon Housing and Community Services (OHCS) receives and administers public purpose charge funds for two low-income housing programs. Four and one-half percent of the public purpose charge funds are dedicated to low-income housing development projects in the PGE and PacifiCorp service areas; 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 the total PPC funds

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

collected are allocated for the weatherization of dwellings of low-income residents in the PGE and PacifiCorp service areas. 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.

In September 2016, the Oregon Department of Energy (ODOE) and the Oregon Public Utility Commission (OPUC) hired Evergreen Economics to prepare a report to the Oregon Legislature documenting PPC receipts and expenditures in compliance with ORS 757.617(1)(a). Specifically, Evergreen Economics

- 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 has Evergreen Economics attempted to independently verify the energy savings accomplishments reported by the PPC fund administrators. These issues are usually addressed through formal third-party program evaluations that are regularly performed for the Energy Trust of Oregon programs.

This is the second, and final, of two 2015-2016 PPC reports that together comprise the eighth biennial report to the Oregon Legislative Assembly required under ORS 757.617. The first report detailed PPC collections, expenditures and energy savings for the 18-month period from January 2015 to June 2016 and was submitted in December 2016. This second, and final, report covers PPC collections, expenditures and energy savings for the full two-year period from January 2015 through December 2016. Going forward, the administrators plan to adjust the PPC reporting schedule to eliminate the need for two reports each biennium.

1.2 Receipt and Expenditure Summary

Table 1 shows PPC fund disbursements to the various administrators and programs for the January 1, 2015 through December 31, 2016 period. The far right column of the table lists the level of expenditure for these funds over the same period. As shown at the bottom of the table, PPC expenditures totaled \$194,119,396 across all fund

administrators. Administrative costs for agencies receiving the PPC funds totaled \$11,341,970, or 5.84 percent of all expenditures during this period.

Table 1: PPC Disbursements and Expenditures (1/2015 - 12/2016)

Fund Administrator / Program	Disbursement Source			Expenditure
	PGE	PacifiCorp	Total	Total
Energy Trust of Oregon*				
Conservation	\$56,850,572	\$42,705,752	\$99,556,324	\$106,452,572
Renewable Energy	\$16,418,026	\$11,977,317	\$28,395,343	\$35,977,663
Administrative Expenses				\$10,058,933
School Districts	\$10,583,283	\$7,559,592	\$18,142,875	\$8,460,534
ODOE Program Expenses				\$598,582
Administrative Expenses				\$304,494
Oregon Housing and Community Services				
Low-Income Weatherization**	\$12,382,441	\$8,849,302	\$21,231,743	\$18,254,881
Low-Income Housing	\$4,762,478	\$3,403,678	\$8,166,156	\$5,754,495
Administrative Expenses				\$934,122
Evaluation, Training, Technical Assistance				\$446,830
Energy Education				\$1,390,309
Self-Direct Customers***				
Conservation	\$2,840,064.44	\$60,113.38	\$2,900,178	\$2,900,178
Renewable Energy	\$1,577,706.62	\$886,034.19	\$2,463,741	\$2,463,741
ODOE Program Expenses				\$77,642
Administrative Expenses				\$44,422
Totals	\$105,414,571	\$75,441,789	\$180,856,360	\$194,119,396
Administrative Costs Only				\$11,341,970

* Energy Trust expenditures exceeded disbursements by \$14,782,782. In 2015 and 2016, per agreement with PGE, Pacific Power and the OPUC, Energy Trust drew down its reserves to cover planned expenses in excess of anticipated revenue.

** 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 and spent by the participating sites in lieu of making payments to the utilities.

Table 2 summarizes the expenditures and results for PPC expenditures from January 2015 through December 2016. The agencies spent a combined total of \$194,119,396 on programs and projects completed during this period. Annual energy savings and renewable resource generation achieved from projects completed during this time reached 1,256,619,655 kWh (over 143 aMW). When all fuel types are included in addition to electricity, PPC expenditures resulted in annual savings of 4,334,342 million Btu (MBtu)

Table 2: Summary of PPC Expenditures and Results (1/2015 – 12/2016)

Agency / Program	Expenditures	Annual Results		
		kWh Saved or Generated	MW _a	MBtu
Energy Trust – Conservation*	\$114,339,106	433,883,385	49.53	1,480,472
Energy Trust – Renewables**	\$38,150,061	53,206,153	6.07	181,547
School Districts***	\$9,363,609	3,438,377	0.39	58,310
OHCS Low-Income****	\$26,780,637	12,410,148	1.42	42,345
Self-Direct Customers*****	\$5,485,983	753,681,593	86.04	2,571,669
Totals	\$194,119,396	1,256,619,655	143.45	4,334,342

* Energy saved excludes savings from reduced transmission and distribution losses. Schools Projects savings of 687,005 kWh have been subtracted from Energy Trust Conservation savings to prevent double counting, since both Energy Trust and the School Districts support this effort. The School Districts include the savings in their reports. PGE project savings of 38,096 kWh have been subtracted from Energy Trust Conservation savings to prevent double counting, since Energy Trust and OHCS collaborated on support for certain projects. OHCS include the savings in their reports. Energy Trust delivers additional savings to PGE and PacifiCorp through funding authorized under SB 838, and to NW Natural and Cascade Natural Gas under the terms of a stipulation with the OPUC. Energy Trust reports total savings for all expenditures to the OPUC and posts those reports on its website.

** Renewable energy generation is from first-year generation savings that were entered into Energy Trust's data system during this 2 year time period.

***MBtu for School Districts includes savings from electricity, natural gas, and other fuels.

**** 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 program expenses, administrative expenses, and public purpose charges retained and spent by the participating sites in lieu of making payments to the utilities.

2 Public Purpose Charge (PPC) Overview

2.1 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 territories.² As part of SB 1149, these utilities were required to collect a 3 percent charge on their retail electricity sales beginning in March 2002. This public purpose charge (PPC) is used to fund cost-effective energy conservation and the above-market costs of renewable energy resources and to help provide weatherization and other energy assistance to low-income households and public schools.

In September 2016, the Oregon Department of Energy (ODOE) and the Oregon Public Utility Commission (OPUC) hired Evergreen Economics to prepare a report to the Oregon Legislature documenting PPC receipts and expenditures in compliance with ORS 757.617(1)(a). Specifically, Evergreen Economics

- 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 2015 through December 2016. Additional detail on how each organization utilized funds is provided in subsequent sections.

2.2 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; Energy Trust seeks to develop and implement programs that promote energy conservation, lower the costs of renewable energy resource system installations and transform markets to efficient products and services within the service areas of PGE and PacifiCorp. Energy Trust receives 73.8 percent of the available PPC funds (56.7 percent dedicated to conservation programs and 17.1 percent for renewable energy projects).

² SB 1149 is codified in ORS 757.600, et. Seq. ORS 757.612 specifically addresses the public purpose charge.

- **School Districts.** Oregon has 112 school districts within PGE and PacifiCorp service territories. The districts collectively receive 10 percent of PPC funds to improve energy efficiency in individual schools. Prior to June 2011, when HB 2960 was passed, these funds were distributed to 16 Educational Service Districts.
- **Oregon Housing and Community Services.** Oregon Housing and Community Services (OHCS) receives and administers PPC funds for two low-income housing programs. Four and one-half percent of the PPC funds are dedicated to low-income housing development projects in the PGE and PacifiCorp service areas. 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 the total PPC funds collected are allocated for the weatherization of dwellings of low-income residents in the PGE and PacifiCorp service areas. 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 were allocated across administrators from January 2015 through December 2016 (see Table 4 for detailed utilities disbursements).

Figure 1: PPC Fund Allocation by Administrator and Program (1/2015 – 12/2016)³

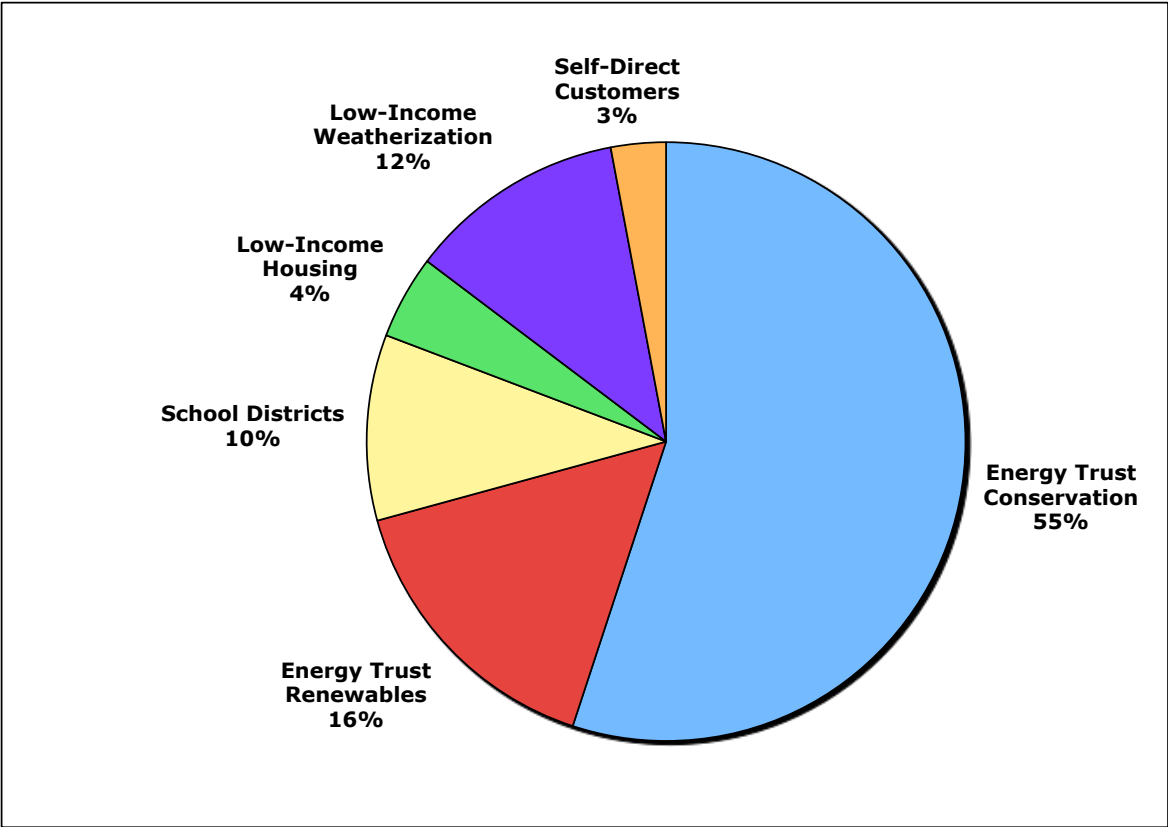


Figure 2 shows the total PPC fund collections for the January 2015 through December 2016 period divided between residential and non-residential ratepayers for each utility.⁴ For both utilities, public purpose funds were collected in nearly identical proportions from the residential and non-residential sectors.

³ This graph includes self-direct expenditures, and thus the allocation percentages do not match the PPC disbursements discussed previously, which pertain to total PPC funds *collected* by the utilities. This chart reflects the utilities' direct allocations to School Districts; Energy Trust provides additional funding for School Districts.

⁴ The sector share was calculated by each utility based on revenues received January 2015 through December 2016. Because of the seasonal nature of energy consumption, this distribution can vary from month to month.

Figure 2: Sector Contribution of PPC Funds by Utility (1/2015 - 12/2016)

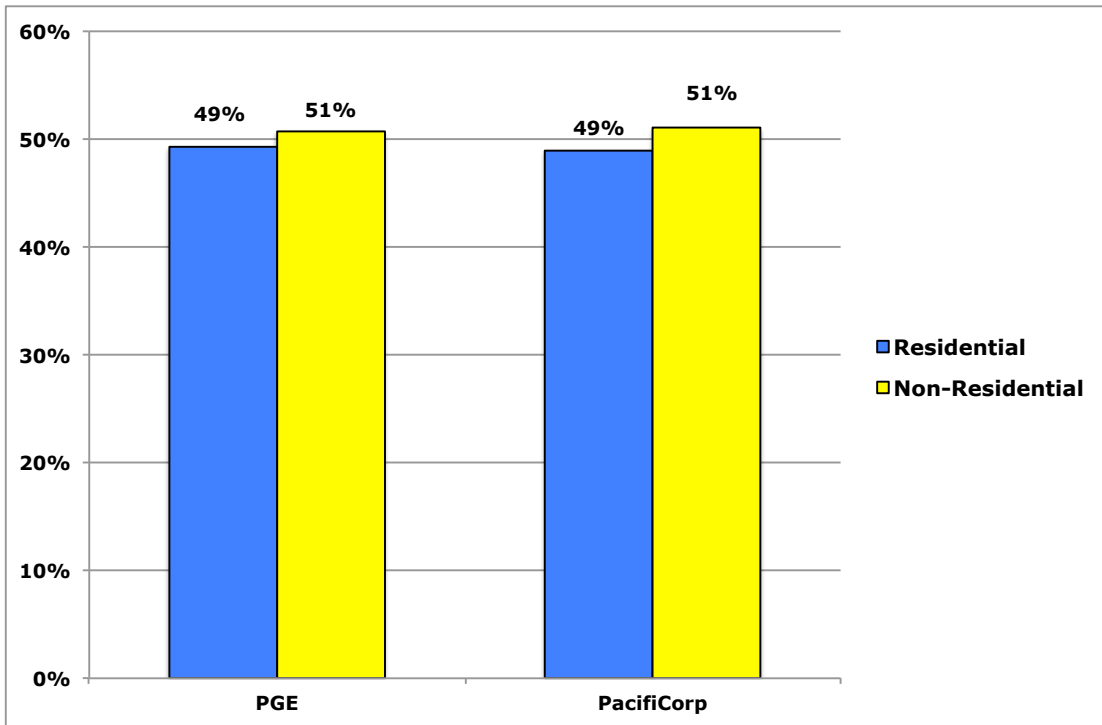
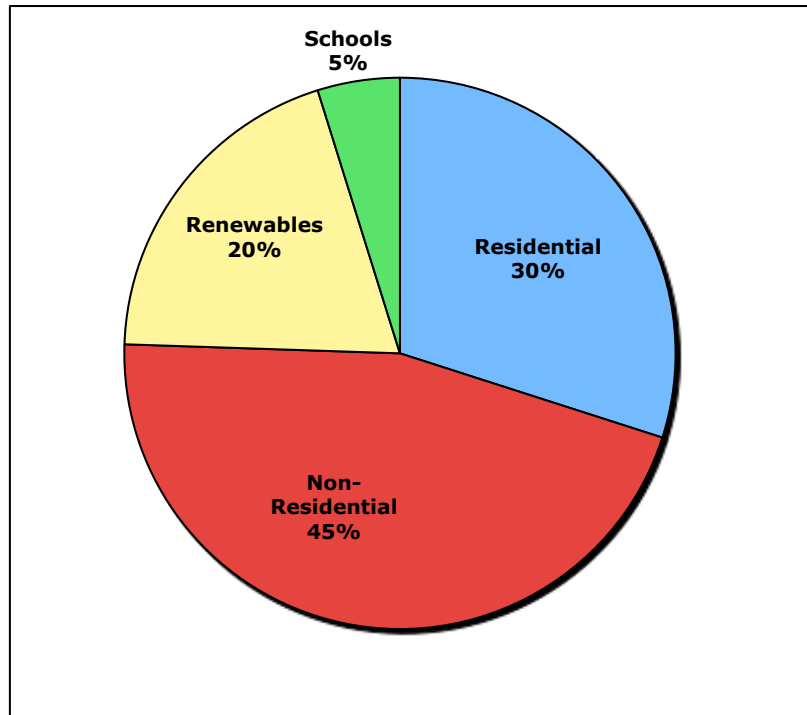


Figure 3 shows how PPC fund expenditures by the various agencies and programs were distributed among sectors. The non-residential sector (excluding schools) accounted for 45 percent of expenditures from January 2015 through December 2016. Over the same timeframe, schools accounted for five percent of expenditures, 20 percent of expenditures were spent on renewable resource development, and 30 percent of expenditures were spent on programs for residential customers (covered by the OHCS and Energy Trust residential conservation programs).⁵

⁵ These schools expenditures are from the utilities' direct allocations only, and not additional funding from Energy Trust.

Figure 3: PPC Expenditures by Sector (1/2015 – 12/2016)



2.3 Receipt and Expenditure Summary

This report details public purpose charge expenditures from January 2015 through December 2016. Table 3 shows the total funds collected during this period from both PGE and PacifiCorp. Over this 24-month period, PGE disbursed \$105,414,571 in PPC funds and PacifiCorp disbursed \$75,441,788, for a total of \$180,856,360 allocated across the agencies. The utilities spent a combined total of \$210,972 on administrative expenses to collect and distribute PPC funds to the agencies. This amount includes funds distributed to the Oregon PUC to help administer the program.

Table 3: Total PPC Fund Disbursements (1/2015 – 12/2016)

Source	PPC Disbursements	Administrative Expenses*
PGE	\$105,414,571	\$125,375
PacifiCorp	\$75,441,788	\$85,597
Total	\$180,856,360	\$210,972

*Includes fees paid to OPUC to help administer the PPC program.

Table 4 provides additional detail on the disbursements across the various programs for the January 2015 through December 2016 period. The far right column of the table lists the level of expenditure for these funds over the same period, and shows that expenditures were similar to disbursements for most programs. As shown at the bottom of the table, PPC expenditures totaled \$194,119,396 across all fund

administrators. Administrative costs for agencies receiving the PPC funds totaled \$11,636,058, or 5.99 percent of all expenditures during this period.

Table 4: PPC Disbursements and Expenditures (1/2015 - 12/2016)

Fund Administrator / Program	Disbursement Source			Expenditure
	PGE	PacifiCorp	Total	Total
Energy Trust of Oregon				
Conservation	\$56,850,572	\$42,705,752	\$99,556,324	\$106,452,572
Renewable Energy	\$16,418,026	\$11,977,317	\$28,395,343	\$35,977,663
Administrative Expenses				\$10,058,933
School Districts	\$10,583,283	\$7,559,592	\$18,142,875	\$8,460,534
ODOE Program Expenses				\$598,582
Administrative Expenses				\$304,494
Oregon Housing and Community Services				
Low-Income Weatherization*	\$12,382,441	\$8,849,302	\$21,231,743	\$18,254,881
Low-Income Housing	\$4,762,478	\$3,403,678	\$8,166,156	\$5,754,495
Administrative Expenses				\$934,122
Evaluation, Training, Technical Assistance				\$446,830
Energy Education				\$1,390,309
Self-Direct Customers**				
Conservation	\$2,840,064.44	\$60,113.38	\$2,900,178	\$2,900,178
Renewable Energy	\$1,577,706.62	\$886,034.19	\$2,463,741	\$2,463,741
ODOE Program Expenses				\$77,642
Administrative Expenses				\$44,422
Totals	\$105,414,571	\$75,441,789	\$180,856,360	\$194,119,396
Administrative Costs Only				\$11,341,970

* 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 and spent by the participating sites in lieu of making payments to the utilities.

Table 5 shows the timing of PPC receipts and expenditures since 2014 for each agency. Unexpended funds from 2014 are listed, in addition to new receipts and expenditures during the January 2015 through December 2016 period.⁶

⁶ The SB 1149 Schools Program operates on a reimbursement model. School districts pay for eligible projects with other funds such as bonds, and then are reimbursed from their SB1149 funds. Reimbursement could consist of a single payment if a district's SB1149 balance is large enough, or it may include multiple payments as additional PPC funds are disbursed. Total reimbursement is capped at projected total disbursement through the end of 2025. A negative carry forward amount indicates that a portion of the total cost of all installed measures will be reimbursed from future PPC disbursements.

Table 5: Cumulative PPC Receipts and Expenditures (1/2015 – 12/2016)

Fund Administrator / Program	2014 Carry Forward*	1/2015 – 12/2016 Receipts	1/2015 – 12/2016 Expenditures
Energy Trust of Oregon			
Conservation	\$8,260,534	\$99,556,324	\$114,339,106
Renewable Energy**	\$21,854,988	\$28,395,343	\$38,150,061
School Districts	-\$8,983,342	\$18,142,875	\$9,363,609
Oregon Housing and Community Services***	\$16,342,346	\$29,397,899	\$26,780,637
Self-Direct Customers****	\$0	\$5,363,919	\$5,485,983
Totals	\$37,474,526	\$180,856,360	\$194,119,396

* 2014 carryover amounts calculated by Evergreen Economics using data from the *Report to Legislative Assembly on Public Purpose Expenditures for the Period January 1, 2013 – December 31, 2014* (March 25, 2015).

** Renewables carryover includes uncommitted funds and funds committed to project installations in future years.

*** 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 and spent by the participating sites in lieu of making payments to the utilities.

The remaining sections in this report describe how each organization used its allocated funds. For comparison’s sake, administrative expenses have been consistently defined 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.

3 Energy Trust of Oregon, Inc.

3.1 Overview

The Oregon PUC designated Energy Trust of Oregon, Inc. to administer the conservation and renewable resource and market transformation components of the PPC. Energy 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 informational assistance and financial incentives to install efficiency measures and lower costs of projects that generate electricity using 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.⁷

Table 6 provides a summary of Energy Trust PPC revenues and expenditures from January 1, 2015 through December 31, 2016. Funds received by Energy Trust during this period totaled \$127,951,667 and expenditures totaled \$152,489,167. Administrative expenses totaled \$10,058,933 and comprised 6.6 percent of total spending by Energy Trust on electric conservation and renewable programs and 7.8 percent of total PPC receipts during this period.⁸

Table 6: Energy Trust Receipt and Expenditure Summary (1/2015 - 12/2016)

Transaction	PGE	PacifiCorp	Total
Total Fund Receipts	\$73,268,598	\$54,683,069	\$127,951,667
Expenditures			
Energy Conservation	\$61,230,937	\$45,221,635	\$106,452,572
Renewable Energy	\$21,327,375	\$14,650,288	\$35,977,663
Administrative Expenses	\$5,957,639	\$4,101,294	\$10,058,933
Total Expenditures	\$88,515,951	\$63,973,216	\$152,489,167

⁷ Energy Trust also administers residential, commercial, and industrial conservation programs for Northwest Natural Gas Company and Cascade Natural Gas Corporation under the terms of a stipulation with the OPUC. Avista Utilities also contracted with Energy Trust in 2006 and 2007 to deliver three programs in its service territory. In 2008, PGE and Pacific Power began providing additional funds for achievable cost-effective energy efficiency to Energy Trust pursuant to section 46 of the 2007 Renewable Energy Act (SB 838).

⁸ Administrative expenses used here and in subsequent tables are defined using the common administrative expense definition discussed in section 2.3 of this report (Receipt and Expenditure Summary) and are for program delivery services funded through SB 1149 only. Administrative costs allocated to Northwest Natural Gas, Cascade Natural Gas, and to PGE and PacifiCorp as authorized under SB 838, are not included here.

3.2 Energy Conservation

Receipts and Expenditures

Table 7 shows Energy Trust fund receipts and expenditures for its conservation programs. During the January 1, 2015, through December 31, 2016 period, \$99,556,324 in PPC funds was distributed to Energy Trust for spending on these programs. Conservation expenditures totaled \$114,339,106 during this same period. In 2015 and 2016, per agreement with PGE, Pacific Power and the OPUC, Energy Trust drew down its reserves to cover planned expenses in excess of anticipated revenue. Administrative costs that could be directly assigned to Energy Trust conservation programs totaled \$7,886,535, or 6.9 percent of total conservation program spending and 7.9 percent of total PPC receipts for conservation programs.

Table 7: Energy Trust Conservation Receipts and Expenditures (1/2015 – 12/2016)

Transaction	PGE	PacifiCorp	Total
Fund Receipts	\$56,850,572	\$42,705,752	\$99,556,324
Expenditures			
Program Expenditures	\$61,230,937	\$45,221,635	\$106,452,572
Administrative Expenses	\$4,673,323	\$3,213,212	\$7,886,535
Total Expenditures	\$65,904,260	\$48,434,846	\$114,339,106

Results⁹

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 8 shows the accomplishments of the individual programs sponsored by Energy Trust. During the period covered by this report, 434,570,390 kWh in energy savings were achieved across all market sectors. The industrial sector accounted for 28 percent of these savings with 122,391,046 kWh saved. Commercial sector savings were 166,669,747 kWh (38 percent of Energy Trust conservation savings), and residential sector savings were 145,509,596 kWh (34 percent).

Energy Trust's Production Efficiency Program accounted for 99 percent of savings in the industrial sector. In the commercial sector, the Existing Buildings Program accounted for 63 percent of the energy savings achieved followed by the New Buildings Program, which accounted for an additional 28 percent. In the residential sector, the New Homes & Products Program accounted for the largest share of energy savings – 49 percent. Additional details about conservation energy savings achieved

⁹ Energy Trust delivers additional savings to PGE and PacifiCorp through funding authorized under SB 838, and to Northwest Natural Gas and Cascade Natural Gas under the terms of a stipulation with the OPUC. Energy Trust reports total savings for all expenditures to the OPUC.

through NEEA's market transformation programs are presented in Section 3.3 of this report.

Table 8: Energy Trust Conservation Programs Energy Savings By Utility (1/2015 - 12/2016)*

Program Name	PGE Savings (kWh)	PacifiCorp Savings (kWh)	Total Savings (kWh)	Average Life of Savings (years)
Residential**				
Existing Homes	12,843,561	15,835,239	28,678,800	15.4
New Homes & Products	38,927,637	31,745,219	70,672,856	12.0
NEEA (Market Transformation)	27,233,181	18,924,759	46,157,940	13.0
Total Residential	79,004,380	66,505,216	145,509,596	13.0
Commercial				
Existing Buildings ***	60,317,834	45,402,628	105,720,462	14.9
New Buildings	18,940,835	27,985,236	46,926,071	16.1
NEEA (Market Transformation)	8,273,697	5,749,517	14,023,214	7.0
Total Commercial	87,532,366	79,137,381	166,669,747	14.6
Industrial				
Production Efficiency	67,497,872	53,651,612	121,149,484	13.0
NEEA (Market Transformation)	732,521	509,041	1,241,563	8.0
Total Industrial	68,230,393	54,160,653	122,391,046	13.0
Total All Programs	234,767,139	199,803,251	434,570,390	13.6

* Savings from reduced transmission and distribution losses are not counted in this table.

** PGE Project savings of 38,096 kWh have been subtracted from Energy Trust Conservation savings to prevent double counting, since Energy Trust and OHCS collaborated on support for certain projects. OHCS include the savings in their report.

** Savings include 687,005 kWh for Schools projects that utilized ODOE-managed SB 1149 funds and received Energy Trust program support to identify electric and natural gas conservation opportunities.

Table 9 provides additional detail regarding the types of efficiency improvements that are being implemented for the various conservation programs. In the residential sector, at least 9,463 ENERGY STAR appliances received rebates, and in the commercial sector, 2,841 existing buildings and 1,655 multifamily buildings were retrofitted.

Table 9: Energy Trust Example Efficiency Improvements (1/2015 - 12/2016)

Improvement Type	Number of Projects*	Average Life of Savings (Years)
Residential		
Efficient new homes constructed	2,076	30.3
Efficient new manufactured homes purchased	104	29.7
Online Home Energy Audits Completed	5,202	N/A
Single-family homes retrofitted	1,278	16.1
Manufactured homes retrofitted	738	18.2
ENERGY STAR appliance rebates	9,463	14 to 17**
Commercial		
Existing buildings retrofitted	2,841	16.3
Efficient new buildings constructed	329	15.9
Multifamily buildings retrofitted	1,655	14.4
New multifamily buildings constructed	100	14.6
Industrial		
Efficient manufacturing processes, water and wastewater treatment, and agriculture	1141	13.85

* Each project serves one site. Multiple measures are often installed at individual sites. Lighting not shown. The number of efficient lighting fixtures and lamps for this period were 448,629 in the Commercial Sector, 67,027 in the Industrial Sector, and 4,229,364 in the Residential Sector

** Clothes Washers: 14 years, Refrigerators: 17 years

Table 10 shows Energy Trust’s cost for each conservation program and the levelized energy costs¹⁰ that have been achieved. The most Energy Trust funds were spent on the Commercial Existing Buildings Program (\$52 million) followed by the Industrial Production Efficiency Program (\$30.9 million) and the Residential Efficient New Homes & Products Program (\$31.3 million). The residential sector attained the lowest overall levelized energy cost, with an average cost of 2 cents per kWh. The industrial and commercial sectors had higher average levelized costs at 2.5 and 2.7 cents per kWh, respectively.

¹⁰ Levelized cost is Energy Trust’s annual cost to save or generate each unit of energy and recover the investment over the life of the measure, which ranges from one to 45 years.

Table 10: Energy Trust Conservation Costs and Levelized Energy Costs (1/2015 – 12/2016)

Program Name	Energy Trust Cost (all electric funders)*	Levelized Cost (dollars/kWh)**
Residential		
Existing Homes	\$10,910,623	0.032
Efficient New Homes & Products	\$16,092,797	0.023
NEEA (Market Transformation)	\$4,345,053	0.009
Total Residential	\$31,348,472	0.020
Commercial		
Existing Buildings	\$39,278,333	0.032
New Buildings	\$10,330,566	0.018
NEEA (Market Transformation)	\$2,438,941	0.027
Total Commercial	\$52,047,839	0.027
Industrial		
Production Efficiency	\$30,597,753	0.025
NEEA (Market Transformation)	\$345,041	0.040
Total Industrial	\$30,942,794	0.025

* Energy Trust Cost includes allocated administrative costs. See footnote 9.

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

Table 11 shows how the energy efficiency incentives paid by Energy Trust were distributed across the geographic regions of Oregon. About 67 percent of all incentives (\$37.5 million) were paid to customers in the Portland area, and 25 percent was divided between the Willamette Valley and Southern Oregon. The commercial sector received the largest share of incentive payments at 42 percent.

Table 11: Energy Trust Energy Efficiency Incentive Payments by Sector and Region, Thousands of Dollars (1/2015 – 12/2016)

Sector	Central/ East	NW/ Coast	Portland Area	Southern	Willamette Valley	Total
Residential	\$1,156	\$174	\$12,186	\$1,799	\$967	\$16,284
Commercial	\$1,513	\$292	\$17,298	\$2,860	\$1,776	\$23,739
Industrial	\$1,271	\$119	\$8,020	\$3,387	\$3,328	\$16,125
Total	\$3,941	\$586	\$37,504	\$8,046	\$6,070	\$56,148

3.3 Market Transformation

Actions and Processes

NEEA is funded by electric utilities in Oregon, Washington, Idaho, and Montana. Energy Trust provides funding on behalf of PGE and PacifiCorp’s ratepayers. 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 coordinated with those of Energy Trust but are more focused on long-term market change. Among its current initiatives are programs for ductless heat pumps, heat pump water heaters, luminaire-level lighting controls, efficient consumer electronics (including TVs), existing commercial building renewal, Strategic Energy Management (SEM) and efficient residential home construction.

Participating Firms and Organizations

Through NEEA, 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 (EPA) to create the Northwest ENERGY STAR new home efficiency program. Through the Consortium for Energy Efficiency, Energy Trust and NEEA also coordinate with similar programs nationally.

Table 12 shows Energy Trust’s cost for each market transformation program. Total Energy Trust costs for market transformation were approximately \$7.1 million, with the greatest share (61 percent) spent in the residential sector.

Table 12: Energy Trust Market Transformation Costs (1/2015 – 12/2016)

Program Name	Energy Trust Cost
NEEA Residential	\$4,345,053
NEEA Commercial	\$2,438,941
NEEA Industrial	\$345,041
Total	\$7,129,035

Table 13 shows the energy savings accomplishments of the programs delivered by NEEA. During the period covered by this report, over 61,400,000 kWh in energy savings were achieved across the three market sectors, with the residential sector accounting for 75 percent of the savings.

Table 13: Energy Trust Market Transformation Energy Savings Delivered by NEEA By Program and Utility (1/2015 – 12/2016)*

Program Name	PGE Savings (kWh)	PacifiCorp Savings (kWh)	Total Savings (kWh)	Average Life of Savings (years)
NEEA Residential	27,233,181	18,924,759	46,157,940	13.0
NEEA Commercial	8,273,697	5,749,517	14,023,214	7.0
NEEA Industrial	732,521	509,041	1,241,563	8.0
Total	36,239,399	25,183,317	61,422,717	11.5

* Savings from reduced transmission and distribution losses are not counted in this table.

* Energy Trust also achieves market transformation savings separate from NEEA.

Technology Advancement

This section provides some examples of the many projects that NEEA is undertaking to validate, refine, and introduce new potentially cost-effective technologies to Northwest markets.

NEEA's Reduced Wattage Lamp Replacement Program has helped to shift the lighting maintenance market toward low-watt lamps. The program offers electrical distributors training and marketing support to promote low-watt lamps to their customers, and provides sales incentives and bonus payments for meeting aggressive targets. After two years, this regional program has had a big impact on low-watt lamp pricing and has helped grow the market share of 28W T8 lamps from 8 to 14 percent in 2015.¹¹

Fifty-five percent of Northwest homes have electric water heaters. High-efficiency heat pump water heaters (HPWHs) specifically designed for the Northwest climate could help the region save nearly 289 aMW by 2035, the equivalent to powering almost 211,000 homes each year. In 2015, NEEA launched an extended promotion of General Electric's 'GeoSpring' heat pump water heater, the most efficient heat pump water heater on the U.S. market at the time. The alliance partnered with GE to provide a manufacturer rebate and worked with retailers to provide an additional discount at the cash register. The alliance also worked to raise customer awareness of heat pump water heaters through developing customized marketing resources, provided training and technical assistance, and jointly funded GE and utility-branded customer outreach. Over the course of the promotion, regional heat pump water heater sales increased 42 percent.¹² Since 2012 NEEA has worked with technical building experts to create a draft Next Step Home specification, which included a set of advanced energy-efficient building practices and technologies to help accelerate residential new construction code changes. In 2015 NEEA recruited 28 new builders to the Next Step Homes Program, bringing the number of participants to more than 50. In 2015,

¹¹ NEEA 2015 Annual Report.

¹² Ibid.

participating builders committed to an additional 80 houses across the region. Energy use data from these homes will be used to develop a standard modeling protocol to better predict the savings associated with advanced building practices. The modeling protocol will give builders flexibility in how they achieve energy savings and make it easier for utilities to measure and verify these savings.

3.4 Renewable Energy

Receipts and Expenditures

Table 14 shows the PPC fund receipts and expenditures dedicated to Energy Trust renewable energy programs from January 1, 2015, through December 31, 2016. During this period, \$28,395,343 in PPC funds was allocated to Energy Trust for renewable energy projects, and renewable energy program spending totaled \$38,150,061. Administrative costs related to the renewable energy program totaled \$2,172,398 and comprised 5.7 percent of total renewable energy program spending by Energy Trust and 7.6 percent of the PPC receipts designated for the renewable energy programs.

Table 14: Energy Trust Receipts and Renewable Expenditures (1/2015 - 12/2016)

Transaction	PGE	PacifiCorp	Total
Fund Receipts*	\$16,418,026	\$11,977,317	\$28,395,343
Expenditures			
Program Expenditures	\$21,327,375	\$14,650,288	\$35,977,663
Administrative Expenses	\$1,284,316	\$888,082	\$2,172,398
Total Expenditures**	\$22,611,691	\$15,538,370	\$38,150,061

* Unspent funds are carried over from previous years either as uncommitted funds or funds committed to contracted project installations in future years. No incentive payments are made to contracted projects until projects have achieved operational status.

** In 2015 and 2016, per agreement with PGE, Pacific Power and the OPUC, Energy Trust drew down its reserves to cover planned expenses in excess of anticipated revenue.

Results

Table 15 lists all the active renewable energy generation projects funded by Energy Trust from January 1, 2015, through December 31, 2016 (projects are often funded over multiple years). The majority of renewable energy capacity was from solar energy systems and the largest amount of annual renewable energy generation was achieved through a 1.7 MW biopower project in Washington County. Another biopower project, an above ground continuous flow stirred-tank reactor (CSTR) in Lane County, achieved 1.4 MW. This biopower project digests 25 tons of post-consumer food waste from Portland, and other high strength food waste from the Willamette Valley. Furthermore, five (5) wind projects were completed in Yamhill, Marion, Polk, and Coos counties, with capacities ranging from 0.01 MW to 0.23 MW. All of the completed projects listed will provide a total of 87,413 MWh in renewable energy per year.

Appendix A lists all of the feasibility studies and other development projects that were approved for funding by Energy Trust's renewable energy programs from January 2015 through December 2016. A total of 286 feasibility studies and other projects (e.g., resource assessments) were active during the report period: 246 were completed and 40 are ongoing. This represents an increase of approximately 50 percent in study activity in the second half of 2016, largely driven by new studies of hydro projects, particularly as part of the irrigation modernization effort. Each row in the table represents a specific study element and funding status. Duplicate titles represent the same project, dividing the completed and initiated portion of work, payments in 2015 and 2016, or differing Energy Trust share per payment.



Table 15: Energy Trust Renewable Energy Projects Summary (1/2015 – 12/2016)

Project	# of Projects	Status	Year	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
Biopower # 6	1	Completed	2016	Marion	20	0.1900	1,403	\$ 1,361.95	\$ 314.70	52% PAC	PAC
Biopower #1	1	Completed	2016	Lane	20	1.3584	12,614	\$ 1,061.92	\$ 158.55	56% PGE	PAC
Biopower #2	1	Completed	2015	Multnomah	20	0.3950	2,226	\$ 1,223.95	\$ 150.28	90% PGE	PAC
Biopower #3	1	Completed	2015	Tillamook	20	0.7500	6,042	\$ 802.71	\$ 165.51	65% PAC	PAC
Biopower #4	1	Completed	2015	Yamhill	20	0.3700	2,968	\$ 889.07	\$ 147.80	67% PGE	PAC
Biopower #5	1	Completed	2015	Washington	20	1.7000	13,108	\$ 1,343.70	\$ 229.87	65% PGE	PAC
Hydro #1	1	Completed	2015	Clatsop	20	0.0300	164	\$ 3,325.43	\$ 872.33	100% PAC	PAC
Hydro #2	1	Completed	2016	Deschutes	20	0.7000	3,286	\$ 679.33	\$ 304.32	69% PAC	PAC
Hydro #3	1	Completed	2015	Hood River	20	0.0000	2,070	\$ 2,395.93	\$ 434.74	52% PAC	PAC
Hydro #4	1	Completed	2015	Wallowa	20	0.0100	87	\$ 1,445.33	\$ 691.17	70% PAC	PAC
Hydro #5	1	Active	2016	Jefferson	20	0.0000	3,421	\$ 1,023.21	\$ 219.26	100% PAC	PAC
Solar #1	1	Completed	2015	Washington	20	0.4208	547	\$ 1,868.77	\$ 649.52	80% PGE	PAC
Solar #2	1	Completed	2015	Multnomah	20	0.2601	244	\$ 3,511.75	\$ 736.45	84% PGE	PAC
Solar #3	1	Completed	2015	Multnomah	20	0.1130	116	\$ 3,216.26	\$ 1,015.86	84% PGE	PAC
Solar #4	1	Completed	2015	Multnomah	20	0.2018	185	\$ 3,480.32	\$ 890.65	89% PGE	PAC
Solar #5	1	Completed	2015	Multnomah	20	0.2262	207	\$ 3,595.96	\$ 835.94	89% PGE	PAC
Solar #6	1	Completed	2015	Multnomah	20	0.2808	257	\$ 3,597.70	\$ 700.35	89% PGE	PAC
Solar #7	1	Completed	2015	Multnomah	20	0.1509	138	\$ 7,631.53	\$ 1,024.43	84% PGE	PAC
Solar #8	1	Completed	2016	Yamhill	20	2.9351	3,992	\$ 1,486.86	\$ 501.01	84% PGE	PAC
Solar Electric in PAC	535	Completed	2015		20	4.4730	5,484	\$ 3,093.73	\$ 572.01	84% PAC	PAC
Solar Electric in PAC	702	Completed	2016		20	8.9910	10,500	\$ 3,104.65	\$ 443.25	84% PAC	PAC
Solar Electric in PGE	1,260	Completed	2015		20	9.2304	9,599	\$ 3,802.71	\$ 728.45	83% PGE	PAC
Solar Electric in PGE	1,052	Completed	2016		20	9.3930	9,733	\$ 3,366.69	\$ 578.44	83% PGE	PAC
Wind #1	1	Completed	2015	Yamhill	15	0.0420	53	\$ 1,698.11	\$ 455.19	83% PGE	PAC
Wind #2	1	Completed	2015	Marion	15	0.2250	352	\$ 2,309.30	\$ 653.31	65% PGE	PAC
Wind #3	1	Active	2016	Coos	15	0.0100	10	\$ 14,925.89	\$ 4,716.98	41% PAC	PAC
Wind #4	1	Active	2016	Polk	15	0.0072	6	\$ 9,587.56	\$ 4,716.98	51% PAC	PAC
Wind #5	1	Active	2016	Polk	15	0.0048	4	\$ 9,587.56	\$ 4,716.98	51% PAC	PAC
Total Completed	3573					42.47	88,816				
Total Contracted	0					0.00	0				
Total	3573					42.47	88,816				

* Costs in this table reflect full incentives committed to projects, and not expenditures during this time period. Please reference Table 14 for actual expenditures.
 ** The percent of above-market cost paid does not necessarily reflect the percent of Renewable Energy Certificates owned by Energy Trust. Renewable Energy Certificate ownership is determined based on the Renewable Energy Certificate policy, which can be found at <https://energytrust.org/wp-content/uploads/2016/11/4.15.000-P.pdf>.
 *** The 18-month Report to Legislative Assembly on Public Purpose Expenditures incorrectly labeled the following projects as completed: Wind #3, Wind #4, Wind #5. These projects remain active.

4 Oregon Housing and Community Services

4.1 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. In either case, housing projects supported by PPC funds for weatherization are required to have a conservation element.

Table 16 provides a summary of the Trust Fund and Weatherization portion of PPC fund receipts and expenditures from January 1, 2015 through December 31, 2016. Funds received by Oregon Housing and Community Services during this period amounted to \$29,397,899 and expenditures including commitments totaled \$35,586,464. Administrative expenses comprised 3.5 percent of total spending between the three programs during this period.

Table 16: OHCS Receipt and Expenditure Summary (1/2015 – 12/2016)

Transaction	PGE	PacifiCorp	Total
Receipts			
Low-Income Weatherization			
Administration	\$619,122	\$442,465	\$1,061,587
Evaluation, Training, and Technical Assistance	\$619,122	\$442,465	\$1,061,587
ECHO	\$9,286,831	\$6,636,977	\$15,923,808
Multi-Family Rental Housing	\$1,857,366	\$1,327,395	\$3,184,761
Total Low-Income Weatherization	\$12,382,441	\$8,849,302	\$21,231,743
Low-Income Housing			
Administration	\$238,124	\$170,184	\$408,308
Program	\$4,524,354	\$3,233,494	\$7,757,848
Total Low-Income Housing	\$4,762,478	\$3,403,678	\$8,166,165
Total Fund Receipts	\$17,144,919	\$12,252,980	\$29,397,899
Expenditures			
Low-Income Weatherization*	\$12,007,578	\$6,247,303	\$18,254,881
Committed but unexpended	\$3,592,112	\$2,093,328	\$5,685,440
Low-Income Housing**			\$5,754,495
Committed but unexpended			\$2,265,057
Administrative Expenses**			\$934,122
Evaluation, Training, Technical Assistance**			\$446,830
Committed but unexpended			\$75,728
Energy Education	\$911,564	\$478,745	\$1,390,309
Committed but unexpended	\$329,992	\$449,610	\$779,602
Total Expenditures (w/o Committed)**	\$12,919,142	\$6,726,048	\$26,780,637
Total Expended and Committed**	\$16,841,246	\$9,268,986	\$35,586,464

* 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.

4.2 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 develop affordable housing to support households whose gross income is at or below 50 percent of the area median income (AMI); the balance of the funds can develop affordable housing to 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 17 shows PPC fund receipts and expenditures for the low-income housing program. During the 2015 through December 2016 period, a total of \$8,166,165 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 \$5,754,495. Funds to pay project costs totaling \$2,265,057 obligated but not spent as of December 31, 2016.

**Table 17: Low-Income Housing Program Receipts and Expenditures
(1/2015 - 12/2016)**

Transaction	Total
Fund Receipts	\$8,166,165
Expenditures	
Committed but unexpended	\$2,265,057
Expenditures	\$5,754,495
Total Expended and Committed	\$8,019,552

Results

During the January 2015 through December 2016 period 579 housing units were fully funded with PPC revenue that targeted families at or below 60 percent of Oregon's median income. Table 18 shows the disbursement of awarded funds and project accomplishments.

Table 18: Low-Income Housing Program Accomplishments

County	Number of Projects	Number of Units in County
Polk	1	10
Multnomah	4	132
Deschutes	1	50
Lane	2	146
Jackson	1	24
Douglas	1	6
Marion	2	113
Union	1	20
Washington	1	22
Yamhill	1	56
10 counties	15 Projects	579 Units

4.3 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 \$3,184,761 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 \$1,025,880 during this period while funds committed to projects totaled an additional \$1,620,251. Expenditures can be 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 (1/2015 - 12/2016)**

Transaction	PGE	PacifiCorp	Total
Fund Receipts	\$1,857,366	\$1,327,395	\$3,184,761
Expenditures			
Committed but unexpended	\$1,355,714	\$264,537	\$1,620,251
Expenditures*	\$869,584	\$156,296	\$1,025,880
Total Expended and Committed	\$2,225,298	\$420,833	\$2,646,131

*Includes expenditures for all projects regardless of funding year.

Results

The low-income weatherization accomplishments are summarized in Table 20. These nineteen completed projects are expected to achieve over 2.1 million kWh in electricity savings in their first year of operation.

**Table 20: Low-Income Weatherization (Multi-Family Rental Housing) Accomplishments
(1/2015 - 12/2016)**

Accomplishment	Total
Number of Projects*	19
Number of Housing Units	1179
Estimated Annual kWh Savings	2,148,571
Population Served (# of housing units)	
Elderly	733
Families	532
Special Needs (# of housing units)	
Special Needs Groups	297
Farm Workers	
Units where household income is between 61 and 80 percent of the area median income	90
Units where household income is between 51 and 60 percent of the area median income	505
Units where household income is between 41 and 50 percent of the area median income	428
Units where household income is between 31 and 40 percent of the area median income	98
Units where household income is equal or less than 30 percent of the area median income	55

* In this reporting period, these thirteen projects accounted for \$1,468,327 expenditures.

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

Table 21: Low-Income Weatherization Program by County (1/2015 – 12/2016)

County	Number of Projects	Number of Units in County
Marion	2	123
Multnomah	8	622
Washington	4	245
Benton	1	13
Douglas	1	82
Clackamas	1	47
Polk	1	10
Klamath	1	37
8 counties	19 Projects	1179 Units

4.4 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 sub-grantees 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
- Health and safety improvements

Completed work is inspected by the local agency to ensure compliance with program standards. The key performance measure (KPM) approved and reviewed by the Legislature

for the ECHO program is to create at least \$1 in energy savings for every \$1 of state investment. During this time period, the ECHO program generated another \$1.05 in energy savings for every dollar invested.

Table 22 shows the PPC fund receipts and expenditures allocated for low-income home weatherization from January 1, 2015 through December 31, 2016. During this period, \$15,923,808 in PPC funds was designated for low-income weatherization. Expenditures on completed weatherization projects during the same period totaled \$17,229,001. During this reporting period, some carryover funds were spent in addition to funds that were received during this period.

Table 22: Low-Income Weatherization (ECHO) Program Receipts and Expenditures (1/2015 - 12/2016)

Transaction	PGE	PacifiCorp	Total
Fund Receipts	\$9,286,831	\$6,636,977	\$15,923,808
Expenditures			
Committed but unexpended	\$2,236,398	\$1,828,791	\$4,065,189
Expenditures	\$11,137,994	\$6,091,007	\$17,229,001
Total Expended and Committed	\$13,374,392	\$7,919,798	\$21,294,190

Results

The low-income weatherization accomplishments are summarized in Table 23. Since the beginning of 2015, this program resulted in the weatherization of 1,915 homes with a combined estimated electricity savings of 10,261,577 kWh. These program efforts have directly benefited 4,479 people, a large portion 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 (1/2015 - 12/2016)

Accomplishment	Total
Number of Homes Weatherized	1915
Annual kWh Savings	10,261,577
Total Population Served	4,479
Special Target Populations Served*	
Elderly (>60 years old)	893
Children (<6 years old)	462
Handicapped	621
Native American	110

*Individuals can be counted in more than one category, as such, the sum of the special target population categories is greater than total population served.

5 School Districts

5.1 Overview

Since January 1, 2015, PPC funds have been distributed directly to the 112 school districts located within the utilities' service territories, and 822 schools (with 399,259 students) are eligible for PPC funding.¹³ These funds are used for cost-effective energy conservation projects at individual schools within each school district 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 eligible energy efficiency measures, to cover the energy savings that will result through the estimated measure life.¹⁴ Finally, when 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 school district.

The Oregon Department of Energy provides program oversight for the school district audits and projects to ensure consistency across school districts 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 school districts receive their PPC funds directly from the utilities.¹⁵

5.2 Receipts and Expenditures

Table 24 provides a summary of the school districts portion of PPC fund receipts and expenditures from January 1, 2015 through December 31, 2016. In addition to the normal program administrative expenses defined earlier, this program had additional administrative expenses for each ESD and school district until HB 2960 was enacted in June 2011. Total administrative costs for the school districts portion of the PPC funds, then, equal \$304,494 and comprise 3.25 percent of total expenditures over this period, and 1.68 percent of the PPC allocation to Oregon schools.

¹³ These figures are based on the 2014-2015 school year.

¹⁴ For example, consider a measure with an installed cost of \$30,000 and a measure life of 20 years that will lead to energy savings of \$1,000 per year. The simple payback would be $\$30,000/\$1,000 = 30$ years. The reimbursement for this measure is capped at $(\$1,000/\text{year}) \times (20 \text{ years of life}) = \$20,000$.

¹⁵ Before HB 2960 was signed into law in June 2011, 10 percent of PPC funds were allocated to 16 Educational Service Districts (ESDs) located within PGE and PacifiCorp service territories.

Table 24: School Districts Receipt and Expenditure Summary (1/2015 – 12/2016)

Transaction	PGE	PacifiCorp	Total
# of School Districts receiving funds*	42	74	112
Total Fund Receipts	\$10,583,283	\$7,559,592	\$18,142,875
Expenditures			
Audits	\$245,401	\$228,930	\$474,331
Conservation Measures Installed**	\$5,765,780	\$1,795,791	\$7,561,571
Commissioning Costs (after measures installed)	\$409,632	\$15,000	\$424,632
School District Administrative Expenses			\$13,472
ODOE Administrative Expenses			\$291,022
ODOE Program Expenses			\$598,582
Total Expenditures	\$6,420,813	\$2,039,721	\$9,363,609

* Some school districts have overlapping utility coverage.

** The expenditure reduction from the 18 month report to this 24 month report for 2015-2016 within PacifiCorp territory is due to a true up of the data entered for completed projects that were eligible during the reporting period.

5.3 Results

Among the 822 schools that are eligible for PPC funds, 723 eligible schools (88 percent) have completed audits along with 88 audits at previously eligible schools, totaling 811 audits in the program. A total of 6,194 individual energy efficiency measures have been identified in these audits that are currently eligible, and 2,891 (47 percent) of these 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 2015 through December 2016 period. During this time, 101 audits were completed across 22 school districts. The audits identified 356 conservation measures that could be installed cost-effectively. If all of these measures were implemented, they would result in annual electricity savings of 5,851,576 kWh and natural gas savings of 614,997 therms. The measures and associated energy savings translate to \$1,074,904 in potential utility bill savings each year.

Table 25: School Districts Audit Results (1/2015 – 12/2016)

Audit Accomplishment	PGE	PacifiCorp	Total
# of Audits Completed	49	52	101
# of School Districts	9	13	22
# of Measures Identified*	158	198	356
Potential Savings Identified in Audits			
Electricity Savings (kWh)	2,487,359	3,364,217	5,851,576
Natural Gas Savings (therms)	193,119	421,878	614,997
Other Fuels (gal)	8,487	11,856	20,343
Total Annual Energy Cost Savings (\$)	\$396,691	\$678,213	\$1,074,904
Total Savings (Btu)	28,979,251,867	55,440,536,121	84,419,787,988
Total Cost of Measures Identified	\$24,005,956	\$14,096,205	\$38,102,160

* ODOE continually reviews the eligibility of measures, which can change over time due to facility changes or changes to estimated savings or costs.

PPC funds are also used to install measures identified through the school audits, and the accomplishments related to actual measure installations are shown in Table 26. During the reporting period, 177 measures identified during audits were installed across 28 school districts. Energy efficiency measures that are most frequently installed include: BAS/DDC systems, occupancy sensors, programmable thermostats, lighting retrofits (e.g., T12 to T8 conversions, Metal Halide to linear fluorescents), building envelope measures (e.g., insulation, efficient windows), 90% or higher efficiency condensing hot water heaters, and heating systems (e.g., high efficient boilers, heat pumps). Common operations and maintenance (O&M) measures include calibrations for HVAC and building control systems, building envelope repairs (e.g., replace/repair broken weather stripping and caulking), heating system repairs (e.g., boiler tune-ups, repair leaking steam traps), and repair leaking faucets/fixtures. In total, these measures are expected to save 3,438,377 kWh in electricity and 346,193 therms of natural gas annually.

Total savings to the schools from the installation of these measures is estimated to be \$741,021 each year. Districts achieve these savings by leveraging the PPC funds shown below to acquire or extend other funds: state energy tax credits, federal grants, and general fund dollars (for the non-energy efficiency portion of projects or when PPC funds have been exhausted). Individual project cost reimbursements are capped based on the annual energy costs savings and the estimated measure life.

Table 26: School Districts Efficiency Measures Installed (1/2015 – 12/2016)

Measure Accomplishment	PGE	PacifiCorp	Total
# of Audit Measures Installed	117	60	177
# of School Districts	11	18	28*
Average Estimated Measure Life (years)	18.1	18.4	
Annual Savings			
Electricity Savings (kWh)	2,552,972	885,405	3,438,377
Natural Gas Savings (therms)	245,826	100,367	346,193
Other Fuels (gal)	20,072	64,412	84,484
Total Annual Energy Cost Savings (\$)	\$451,627	\$289,394	\$741,021
Total Annual Energy Savings (Btu)	36,172,740,836	22,137,003,365	58,309,744,201
Total PPC Cost of Measures Installed**	\$5,765,780	\$1,795,791	\$7,561,571

* One school district has schools in both utility territories.

** The expenditure reduction from the 18 month report to this 24 month report for 2015-2016 within PacifiCorp territory is due to a true up of the data entered for completed projects that were eligible during the reporting period.

6 Self-Direct Customers

6.1 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. One hundred large electric 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 2015 through December 2016, self-direct customers in the PacifiCorp service territory claimed \$946,148 in credits for conservation and renewable resource projects, and customers in the PGE service territory claimed \$4,417,771. Combined, self-direct customers of both utilities claimed \$2,900,178 in conservation credit and \$2,463,741 in renewable resource credit from January 2015 through December 2016.

6.2 Results

Table 27 summarizes self-direct program conservation activity from January 2015 through December 2016. During this period, self-direction sites implemented projects that involved energy management systems, industrial process modifications, lighting modifications, and energy efficient pumps. PGE customers certified five conservation projects (three in Washington County, one in Clackamas County, and one in Marion County) with a total eligible cost of \$629,350. PacifiCorp customers certified five projects in Marion County with a total eligible cost of \$255,860. The combined effect of these projects is 2,939,582 kWh in energy savings annually, or \$176,286 in annual energy cost savings.

**Table 27: Self-Direct Program Certified Conservation Projects
(1/2015 - 12/2016)**

	PGE	PacifiCorp	Total
Projects Certified	5	5	10
Total Eligible Cost	\$629,350	\$255,860	\$885,210
Total Energy Cost Savings (annual)	\$134,506	\$41,780	\$176,286
Total Energy Savings (annual kWh)	2,393,756	545,826	2,939,582



Table 28 summarizes self-direct program green tag renewable energy purchases from January 2015 through December 2016. PGE customers purchased about 580,000 green tags valued at over \$1.75 million, and PacifiCorp customers purchased about 165,000 green tags valued at approximately \$1 million. Collectively, these green tags supported the generation of about 750,000,000 kWh of renewable energy.

The Oregon Department of Energy incurred administrative costs of \$44,422 and program expenses of \$77,642 to process all conservation, renewable energy and green tag projects.

**Table 28: Self-Direct Program Green Tag Purchases
(1/2015 - 12/2016)**

	PGE	PacifiCorp	Total
Sites	40	36	76
Green Tags Purchased	583,922	166,800	750,722
Credits Issued	\$1,751,807	\$1,090,900	\$2,842,707
Energy Generated (kWh)	583,929,011	166,813,000	750,742,011

7 Summary

Table 29 summarizes the expenditures and results for PPC expenditures from January 2015 through December 2016. The agencies spent a combined total of \$194,119,396 on programs and projects completed during this period. Annual energy savings and renewable resource generation achieved from projects completed during this time reached 1,256,619,655 kWh (over 143 MWa). When all fuel types are included in addition to electricity, PPC expenditures resulted in annual savings of 4,334,342 million Btu (MBtu), which is enough to serve approximately 43,200 homes.¹⁶

Table 29: Summary of PPC Expenditures and Results (1/2015 - 12/2016)

Agency / Program	Expenditures	Annual Results		
		kWh Saved or Generated	MWa	MBtu
Energy Trust – Conservation*	\$114,339,106	433,883,385	49.53	1,480,472
Energy Trust – Renewables**	\$38,150,061	53,206,153	6.07	181,547
School Districts***	\$9,363,609	3,438,377	0.39	58,310
OHCS Low-Income****	\$26,780,637	12,410,148	1.42	42,345
Self-Direct Customers*****	\$5,485,983	753,681,593	86.04	2,571,669
Totals	\$194,119,396	1,256,619,655	143.45	4,334,342

* Energy saved excludes savings from reduced transmission and distribution losses. Schools Projects savings of 687,005 kWh have been subtracted from Energy Trust Conservation savings to prevent double counting, since both Energy Trust and the School Districts support this effort. The School Districts include the savings in their reports. PGE project savings of 38,096 kWh have been subtracted from Energy Trust Conservation savings to prevent double counting, since Energy Trust and OHCS collaborated on support for certain projects. OHCS include the savings in their reports. Energy Trust delivers additional savings to PGE and PacifiCorp through funding authorized under SB 838, and to NW Natural and Cascade Natural Gas under the terms of a stipulation with the OPUC. Energy Trust reports total savings for all expenditures to the OPUC.

** Renewable energy generation is from first-year generation savings that were entered into Energy Trust's data system during this 2-year time period.

***MBtu for School Districts includes savings from electricity, natural gas, and other fuels.

**** 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 program expenses, administrative expenses, and public purpose charges retained and spent by the participating sites in lieu of making payments to the utilities.

¹⁶ Calculated using ODOE's estimate that each home uses 100 Mbtu per year on average.

Appendix A – Energy Trust Feasibility Studies and Projects

Title	Status	Year	Project Type	County	Utility Service Territory	Cost to Energy Trust	Energy Trust Share
Biopower #1	Initiated	2015		Clackamas	PGE	\$11,000.00	50%
Biopower #2	Completed	2015	Other Biopower Feasibility Analysis	Columbia	PGE	\$40,000.00	47%
Biopower #3	Completed	2016	Sewage Treatment Gas Feasibility Analysis	Clackamas	PGE	\$13,373.00	50%
Biopower #3	Initiated	2015	Sewage Treatment Gas Feasibility Analysis	Clackamas	PGE	\$8,795.00	50%
Biopower #4	Completed	2015	Other Biopower Feasibility Analysis	Multnomah	PAC	\$23,264.50	50%
Biopower #5	Completed	2016	Other Biopower Feasibility Analysis	Multnomah	PAC	\$884.00	50%
Biopower #7	Initiated	2016	Sewage Treatment Gas Feasibility Analysis	Hood River	PAC	\$10,000.00	25%
Biopower #7	Completed	2016	Sewage Treatment Gas Feasibility Analysis	Marion	PGE	\$189.00	50%
Biopower #7	Completed	2016	Sewage Treatment Gas Feasibility Analysis	Marion	PGE	\$73,302.00	50%
Biopower #8	Initiated	2016	Wood Waste Feasibility Analysis	Grant	PGE	\$80,500.00	50%
Biopower #9	Initiated	2016	Manure Feasibility Analysis	Umatilla	PGE	\$4,483.50	50%
Biopower #6	Completed	2016	Other Biopower Feasibility Analysis	Deschutes	PAC	\$2,111.70	50%
Biopower #6	Completed	2015	Other Biopower Feasibility Analysis	Deschutes	PAC	\$19,950.00	50%
Biopower #6	Initiated	2016	Other Biopower Feasibility Analysis	Deschutes	PAC	\$38,950.00	50%
Biopower #6	Initiated	2016	Other Biopower Feasibility Analysis	Deschutes	PAC	\$20,000.00	50%
Geothermal #1	Initiated	2015	Open Solicitation - Feasibility Analysis -Export	Klamath	PAC	\$112,500.00	50%
Geothermal #2	Completed	2015	Open Solicitation - Feasibility Analysis -Export	Klamath	PAC	\$85.00	50%
Geothermal #3	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Klamath	PGE	\$200,000.00	34%
Geothermal #4	Initiated	2016	Open Solicitation - Feasibility Analysis -Export	Umatilla	PAC	\$183,454.61	33%
Hydro #1	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Jefferson	PAC	\$37,770.50	47%
Hydro #1	Completed	2015	Open Solicitation - Feasibility Analysis - Onsite	Jefferson	PAC	\$139,089.00	17%
Hydro #10	Completed	2016	Open Solicitation - Feasibility Analysis - Onsite	Wallowa	PAC	\$250.00	100%
Hydro #10	Completed	2015	Open Solicitation - Feasibility Analysis - Onsite	Wallowa	PAC	\$450.00	100%
Hydro #10	Completed	2015	Open Solicitation - Feasibility Analysis - Onsite	Wallowa	PAC	\$675.00	100%
Hydro #10	Completed	2016	Open Solicitation - Feasibility Analysis - Onsite	Wallowa	PAC	\$2,362.50	100%
Hydro #10	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$337.50	100%
Hydro #10	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$450.00	100%
Hydro #10	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$525.00	100%
Hydro #10	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$750.00	100%
Hydro #10	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$2,062.50	100%
Hydro #10	Initiated	2015	Open Solicitation - Feasibility Analysis - Onsite	Wallowa	PAC	\$10,937.50	100%
Hydro #11	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Hood River	PAC	\$574.81	100%
Hydro #11	Completed	2015	Open Solicitation - Feasibility Analysis -Export	Hood River	PAC	\$2,727.50	100%
Hydro #11	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Hood River	PAC	\$3,880.00	100%
Hydro #11	Completed	2015	Open Solicitation - Feasibility Analysis -Export	Hood River	PAC	\$4,320.00	100%
Hydro #11	Completed	2015	Open Solicitation - Feasibility Analysis -Export	Hood River	PAC	\$5,655.00	100%
Hydro #11	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Hood River	PAC	\$5,860.19	100%
Hydro #11	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Hood River	PAC	\$6,293.00	100%
Hydro #11	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Hood River	PAC	\$7,526.00	100%
Hydro #11	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Hood River	PAC	\$9,344.81	100%
Hydro #11	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Hood River	PAC	\$12,980.00	100%
Hydro #11	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Hood River	PAC	\$13,353.45	100%
Hydro #11	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Hood River	PAC	\$13,789.77	100%
Hydro #11	Completed	2015	Open Solicitation - Feasibility Analysis -Export	Hood River	PAC	\$17,755.17	100%
Hydro #11	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Hood River	PAC	\$21,125.30	100%
Hydro #11	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Hood River	PAC	\$25,473.92	100%
Hydro #11	Initiated	2016	Open Solicitation - Feasibility Analysis -Export	Hood River	PAC	\$41,915.82	100%

Title	Status	Year	Project Type	County	Utility Service Territory	Cost to Energy Trust	Energy Trust Share
Hydro #12	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$375.00	100%
Hydro #12	Completed	2016	Open Solicitation - Feasibility Analysis - Onsite	Wallowa	PAC	\$450.00	100%
Hydro #12	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$450.00	100%
Hydro #12	Completed	2015	Open Solicitation - Feasibility Analysis - Onsite	Wallowa	PAC	\$750.00	100%
Hydro #12	Completed	2015	Open Solicitation - Feasibility Analysis - Onsite	Wallowa	PAC	\$975.00	100%
Hydro #12	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$1,050.00	100%
Hydro #12	Completed	2015	Open Solicitation - Feasibility Analysis - Onsite	Wallowa	PAC	\$1,125.00	100%
Hydro #12	Completed	2015	Open Solicitation - Feasibility Analysis - Onsite	Wallowa	PAC	\$1,275.00	100%
Hydro #12	Completed	2015	Open Solicitation - Feasibility Analysis - Onsite	Wallowa	PAC	\$1,500.00	100%
Hydro #12	Completed	2015	Open Solicitation - Feasibility Analysis - Onsite	Wallowa	PAC	\$1,650.00	100%
Hydro #12	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$1,825.00	100%
Hydro #12	Completed	2015	Open Solicitation - Feasibility Analysis - Onsite	Wallowa	PAC	\$1,950.00	100%
Hydro #12	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$2,700.00	100%
Hydro #12	Completed	2016	Open Solicitation - Feasibility Analysis - Onsite	Wallowa	PAC	\$2,887.50	100%
Hydro #12	Initiated	2016	Open Solicitation - Feasibility Analysis - Onsite	Wallowa	PAC	\$22,725.50	100%
Hydro #13	Completed	2015	Open Solicitation - Feasibility Analysis -Export	Umatilla	PAC	\$400.00	100%
Hydro #13	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Umatilla	PAC	\$2,387.86	100%
Hydro #13	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Umatilla	PAC	\$3,036.50	100%
Hydro #13	Completed	2015	Open Solicitation - Feasibility Analysis -Export	Umatilla	PAC	\$5,255.00	100%
Hydro #13	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Umatilla	PAC	\$5,722.50	100%
Hydro #13	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Umatilla	PAC	\$6,680.58	100%
Hydro #13	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Umatilla	PAC	\$8,617.56	100%
Hydro #13	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Umatilla	PAC	\$20,211.00	100%
Hydro #13	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Umatilla	PAC	\$20,668.50	100%
Hydro #13	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Umatilla	PAC	\$25,450.38	100%
Hydro #13	Initiated	2015	Open Solicitation - Feasibility Analysis -Export	Umatilla	PAC	\$9,954.86	100%
Hydro #13	Initiated	2016	Open Solicitation - Feasibility Analysis -Export	Umatilla	PAC	\$86,600.00	100%
Hydro #14	Completed	2015	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$800.00	100%
Hydro #14	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$3,203.18	100%
Hydro #14	Completed	2015	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$4,064.61	100%
Hydro #14	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$4,709.17	100%
Hydro #14	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$7,325.76	100%
Hydro #14	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$10,420.30	100%
Hydro #14	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$13,732.50	100%
Hydro #14	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$14,296.92	100%
Hydro #14	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$16,194.99	100%
Hydro #14	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$18,206.59	100%
Hydro #14	Initiated	2016	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$91,005.72	100%
Hydro #15	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$440.00	100%
Hydro #15	Completed	2015	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$500.00	100%
Hydro #15	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$774.00	100%
Hydro #15	Completed	2015	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$1,720.00	100%
Hydro #15	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$2,280.00	100%
Hydro #15	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$2,743.25	100%
Hydro #15	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$4,120.00	100%
Hydro #15	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$4,161.35	100%
Hydro #15	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$6,125.55	100%
Hydro #15	Completed	2015	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$6,546.81	100%
Hydro #15	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$6,588.30	100%
Hydro #15	Initiated	2015	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$17,833.24	100%
Hydro #16	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$6,967.00	100%
Hydro #16	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$10,330.00	100%
Hydro #16	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$11,685.62	100%
Hydro #16	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$14,485.73	100%
Hydro #16	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$15,413.50	100%

Title	Status	Year	Projcet Type	County	Utliy Service Territory	Cost to Energy Trust	Energy Trust Share
Hydro #16	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$16,200.04	100%
Hydro #16	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$16,382.77	100%
Hydro #16	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$19,118.01	100%
Hydro #16	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$20,298.46	100%
Hydro #16	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$21,417.00	100%
Hydro #16	Initiated	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$37,581.87	100%
Hydro #17	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$6,340.50	100%
Hydro #17	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$8,695.00	100%
Hydro #17	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$9,834.14	100%
Hydro #17	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$10,270.20	100%
Hydro #17	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$11,896.56	100%
Hydro #17	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$12,756.94	100%
Hydro #17	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$12,844.05	100%
Hydro #17	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$15,085.00	100%
Hydro #17	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$16,565.99	100%
Hydro #17	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$17,653.70	100%
Hydro #17	Initiated	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$66,965.16	100%
Hydro #18	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Crook	PAC	\$3,849.23	100%
Hydro #18	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Crook	PAC	\$6,983.00	100%
Hydro #18	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Crook	PAC	\$10,513.16	100%
Hydro #18	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Crook	PAC	\$10,996.27	100%
Hydro #18	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Crook	PAC	\$11,105.10	100%
Hydro #18	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Crook	PAC	\$13,686.80	100%
Hydro #18	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Crook	PAC	\$14,605.00	100%
Hydro #18	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Crook	PAC	\$17,041.88	100%
Hydro #18	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Crook	PAC	\$17,470.17	100%
Hydro #18	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Crook	PAC	\$19,427.50	100%
Hydro #18	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Crook	PAC	\$23,098.01	100%
Hydro #18	Initiated	2016	Open Solicitation - Feasibility Analysis -Export	Crook	PAC	\$40,066.12	100%
Hydro #19	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Jefferson	PAC	\$12,103.31	100%
Hydro #19	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Jefferson	PAC	\$14,812.79	100%
Hydro #19	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Jefferson	PAC	\$18,465.57	100%
Hydro #19	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Jefferson	PAC	\$20,836.36	100%
Hydro #19	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Jefferson	PAC	\$22,727.24	100%
Hydro #19	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Jefferson	PAC	\$29,922.27	100%
Hydro #19	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Jefferson	PAC	\$32,263.03	100%
Hydro #19	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Jefferson	PAC	\$48,869.43	100%
Hydro #19	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Jefferson	PAC	\$58,646.28	100%
Hydro #19	Initiated	2016	Open Solicitation - Feasibility Analysis -Export	Jefferson	PAC	\$112,538.46	100%
Hydro #2	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Umatilla	PAC	\$431.25	50%
Hydro #2	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Umatilla	PAC	\$1,800.00	50%
Hydro #2	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Umatilla	PAC	\$2,000.00	50%
Hydro #2	Completed	2015	Open Solicitation - Feasibility Analysis -Export	Umatilla	PAC	\$3,000.00	50%
Hydro #2	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Umatilla	PAC	\$8,990.00	100%
Hydro #2	Initiated	2015	Open Solicitation - Feasibility Analysis -Export	Umatilla	PAC	\$10,000.00	50%
Hydro #2	Initiated	2015	Open Solicitation - Feasibility Analysis -Export	Umatilla	PAC	\$12,568.75	48%
Hydro #2	Initiated	2016	Open Solicitation - Feasibility Analysis -Export	Umatilla	PAC	\$4,000.00	33%
Hydro #20	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$19,648.30	100%
Hydro #20	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$21,294.06	100%
Hydro #20	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$29,368.67	100%
Hydro #20	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$33,617.15	100%
Hydro #20	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$39,517.65	100%
Hydro #20	Initiated	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$3,776.90	100%
Hydro #21	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$10,670.70	100%
Hydro #21	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$11,027.70	100%
Hydro #21	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$13,161.80	100%
Hydro #21	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$15,617.56	100%

Title	Status	Year	Projcet Type	County	Utliy Service Territory	Cost to Energy Trust	Energy Trust Share
Hydro #21	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$18,828.10	100%
Hydro #21	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$23,201.50	100%
Hydro #21	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$29,986.07	100%
Hydro #21	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$70,210.77	100%
Hydro #21	Initiated	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$173,374.04	100%
Hydro #22	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$9,587.35	100%
Hydro #22	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$9,626.96	100%
Hydro #22	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$10,674.98	100%
Hydro #22	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$10,997.50	100%
Hydro #22	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$12,485.63	100%
Hydro #22	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$14,220.00	100%
Hydro #22	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$15,944.26	100%
Hydro #22	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$19,087.50	100%
Hydro #22	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$24,054.32	100%
Hydro #22	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$50,234.00	100%
Hydro #22	Initiated	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$10,240.00	100%
Hydro #23	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Crook	PAC	\$10,360.25	100%
Hydro #23	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Crook	PAC	\$15,867.01	100%
Hydro #23	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Crook	PAC	\$15,960.00	100%
Hydro #23	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Crook	PAC	\$18,542.59	100%
Hydro #23	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Crook	PAC	\$19,072.50	100%
Hydro #23	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Crook	PAC	\$22,664.80	100%
Hydro #23	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Crook	PAC	\$45,986.65	100%
Hydro #23	Initiated	2016	Open Solicitation - Feasibility Analysis -Export	Crook	PAC	\$1,202.58	100%
Hydro #24	Completed	2016	Open Solicitation - Feasibility Analysis - Onsite	Wallowa	PAC	\$375.00	100%
Hydro #24	Completed	2016	Open Solicitation - Feasibility Analysis - Onsite	Wallowa	PAC	\$375.00	100%
Hydro #24	Initiated	2015	Open Solicitation - Feasibility Analysis - Onsite	Wallowa	PAC	\$19,250.00	88%
Hydro #25	Completed	2016	Open Solicitation - Feasibility Analysis - Onsite	Wallowa	PAC	\$375.00	100%
Hydro #25	Completed	2016	Open Solicitation - Feasibility Analysis - Onsite	Wallowa	PAC	\$1,050.00	100%
Hydro #25	Completed	2016	Open Solicitation - Feasibility Analysis - Onsite	Wallowa	PAC	\$4,837.50	100%
Hydro #25	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$300.00	100%
Hydro #25	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$525.00	100%
Hydro #25	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$2,550.00	100%
Hydro #25	Initiated	2016	Open Solicitation - Feasibility Analysis - Onsite	Wallowa	PAC	\$8,962.50	100%
Hydro #26	Completed	2016	Open Solicitation - Feasibility Analysis - Onsite	Wallowa	PAC	\$300.00	100%
Hydro #26	Completed	2016	Open Solicitation - Feasibility Analysis - Onsite	Wallowa	PAC	\$375.00	100%
Hydro #26	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$450.00	100%
Hydro #26	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$675.00	100%
Hydro #26	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$1,237.50	100%
Hydro #26	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$1,762.50	100%
Hydro #26	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$1,800.00	100%
Hydro #26	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$2,025.00	100%
Hydro #26	Initiated	2016	Open Solicitation - Feasibility Analysis - Onsite	Wallowa	PAC	\$32,153.00	100%
Hydro #27	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Hood River	PAC	\$2,848.26	100%
Hydro #27	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Hood River	PAC	\$3,375.48	100%
Hydro #27	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Hood River	PAC	\$10,237.50	100%
Hydro #27	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Hood River	PAC	\$31,659.50	100%
Hydro #28	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Hood River	PAC	\$7,883.19	100%
Hydro #28	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Hood River	PAC	\$9,225.26	100%
Hydro #28	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Hood River	PAC	\$10,112.50	100%
Hydro #28	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Hood River	PAC	\$26,916.00	100%
Hydro #29	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Klamath	PAC	\$4,417.50	50%
Hydro #29	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Klamath	PAC	\$4,740.30	50%
Hydro #29	Initiated	2016	Open Solicitation - Feasibility Analysis -Export	Klamath	PAC	\$71,340.20	44%
Hydro #29	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Klamath	PAC	\$4,308.25	50%
Hydro #29	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Klamath	PAC	\$4,729.85	50%
Hydro #29	Initiated	2016	Open Solicitation - Feasibility Analysis -Export	Klamath	PAC	\$70,311.90	44%

Title	Status	Year	Projcet Type	County	Utliy Service Territory	Cost to Energy Trust	Energy Trust Share
Hydro #3	Completed	2015	Open Solicitation - Feasibility Analysis - Onsite	Wallowa	PAC	\$1,800.00	100%
Hydro #3	Completed	2015	Open Solicitation - Feasibility Analysis - Onsite	Wallowa	PAC	\$675.00	100%
Hydro #3	Completed	2015	Open Solicitation - Feasibility Analysis - Onsite	Wallowa	PAC	\$505.00	100%
Hydro #3	Completed	2015	Open Solicitation - Feasibility Analysis - Onsite	Wallowa	PAC	\$600.00	100%
Hydro #3	Completed	2015	Open Solicitation - Feasibility Analysis - Onsite	Wallowa	PAC	\$487.50	100%
Hydro #3	Completed	2016	Open Solicitation - Feasibility Analysis - Onsite	Wallowa	PAC	\$487.50	100%
Hydro #30	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Klamath	PAC	\$10,772.80	50%
Hydro #30	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Klamath	PAC	\$12,424.00	50%
Hydro #31	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Klamath	PAC	\$12,999.97	50%
Hydro #31	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Klamath	PAC	\$15,018.00	50%
Hydro #32	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Klamath	PAC	\$3,991.36	50%
Hydro #32	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Klamath	PAC	\$5,025.99	50%
Hydro #32	Initiated	2016	Open Solicitation - Feasibility Analysis -Export	Klamath	PAC	\$70,332.65	44%
Hydro #33	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Jefferson	PAC	\$4,165.78	50%
Hydro #33	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Jefferson	PAC	\$4,205.28	50%
Hydro #33	Initiated	2016	Open Solicitation - Feasibility Analysis -Export	Jefferson	PAC	\$56,228.94	44%
Hydro #34	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$4,165.78	50%
Hydro #34	Initiated	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$64,383.44	44%
Hydro #35	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$4,165.78	50%
Hydro #35	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$4,165.79	50%
Hydro #35	Initiated	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$64,383.44	44%
Hydro #36	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$262.50	100%
Hydro #36	Initiated	2016	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$11,512.50	100%
Hydro #37	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Klamath	PAC	\$1,800.00	50%
Hydro #38	Initiated	2016	Open Solicitation - Feasibility Analysis - Onsite	Jefferson	PAC	\$3,500.00	50%
Hydro #4	Completed	2015	Open Solicitation - Feasibility Analysis - Onsite	Washington	PGE	\$8,500.00	50%
Hydro #4	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Washington	PGE	\$6,024.87	50%
Hydro #5	Completed	2016	Open Solicitation - Feasibility Analysis - Onsite	Wallowa	PAC	\$300.00	100%
Hydro #5	Completed	2015	Open Solicitation - Feasibility Analysis - Onsite	Wallowa	PAC	\$412.50	100%
Hydro #5	Completed	2015	Open Solicitation - Feasibility Analysis - Onsite	Wallowa	PAC	\$450.00	100%
Hydro #5	Completed	2015	Open Solicitation - Feasibility Analysis - Onsite	Wallowa	PAC	\$525.00	100%
Hydro #5	Completed	2015	Open Solicitation - Feasibility Analysis - Onsite	Wallowa	PAC	\$1,080.00	100%
Hydro #5	Completed	2015	Open Solicitation - Feasibility Analysis - Onsite	Wallowa	PAC	\$1,237.50	100%
Hydro #5	Completed	2015	Open Solicitation - Feasibility Analysis - Onsite	Wallowa	PAC	\$1,275.00	100%
Hydro #5	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$300.00	100%
Hydro #5	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$525.00	100%
Hydro #5	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$562.50	100%
Hydro #5	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$975.00	100%
Hydro #5	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$1,162.50	100%
Hydro #6	Completed	2015	Open Solicitation - Feasibility Analysis -Export	Marion	PAC	\$8,993.92	50%
Hydro #6	Completed	2015	Open Solicitation - Feasibility Analysis -Export	Marion	PAC	\$9,975.48	27%
Hydro #6	Completed	2015	Open Solicitation - Feasibility Analysis -Export	Marion	PAC	\$21,030.60	50%
Hydro #6	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Marion	PAC	\$25,000.00	50%
Hydro #6	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Marion	PAC	\$36,854.83	50%
Hydro #6	Initiated	2016	Open Solicitation - Feasibility Analysis -Export	Marion	PAC	\$88,169.43	24%
Hydro #7	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Crook	PAC	\$12,000.00	50%
Hydro #7	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Crook	PAC	\$4,328.56	50%
Hydro #8	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$11,197.00	50%
Hydro #8	Completed	2015	Open Solicitation - Feasibility Analysis -Export	Deschutes	PAC	\$33,000.00	36%
Hydro #9	Completed	2015	Open Solicitation - Feasibility Analysis - Onsite	Wallowa	PAC	\$375.00	100%
Hydro #9	Completed	2016	Open Solicitation - Feasibility Analysis - Onsite	Wallowa	PAC	\$1,837.50	100%
Hydro #9	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$375.00	100%
Hydro #9	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$450.00	100%
Hydro #9	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$675.00	100%
Hydro #9	Completed	2016	Open Solicitation - Feasibility Analysis -Export	Wallowa	PAC	\$750.00	100%
Hydro #9	Initiated	2015	Open Solicitation - Feasibility Analysis - Onsite	Wallowa	PAC	\$14,787.50	100%
Wind #1	Completed	2015	Wind - Feasibility Analysis & Resource Assesment - Export	Morrow	PGE	\$417.50	50%
Wind #1	Completed	2015	Wind - Feasibility Analysis & Resource Assesment - Export	Morrow	PGE	\$1,555.93	50%
Wind #2	Completed	2015	Wind - Feasibility Analysis & Resource Assesment - Export	Morrow	PAC	\$258.00	50%
Wind #2	Completed	2015	Wind - Feasibility Analysis & Resource Assesment - Export	Morrow	PAC	\$150.00	50%
Wind #2	Completed	2015	Wind - Feasibility Analysis & Resource Assesment - Export	Morrow	PAC	\$950.00	50%
Wind #3	Completed	2015	Wind - Feasibility Analysis & Resource Assesment - Onsite	Sherman	PAC	\$750.00	50%
Wind #3	Completed	2015	Wind - Feasibility Analysis & Resource Assesment - Onsite	Sherman	PAC	\$950.00	50%
Wind #4	Completed	2016	Wind - Feasibility Analysis & Resource Assesment - Export	Lincoln	PAC	\$11,831.36	50%