



Report to Legislative Assembly on Public Purpose Charge Receipts and Expenditures

Report
Prepared by
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Economics

Period:
July 1, 2017 –
June 30, 2019





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1 Executive Summary

Report to Legislative Assembly on Public Purpose Expenditures

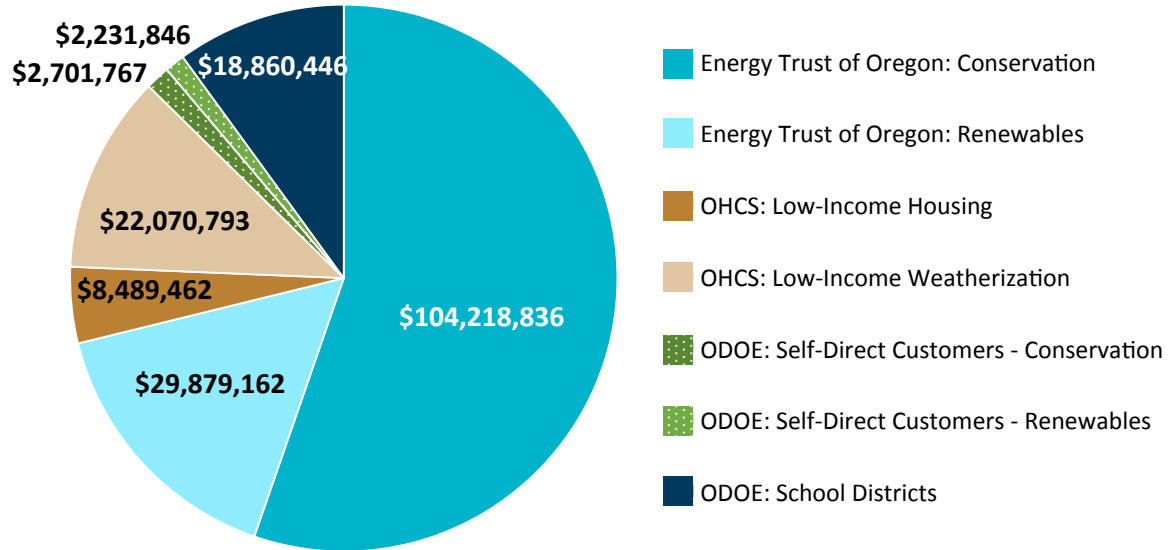
PPC FUND DISTRIBUTION

Senate Bill 1149 instituted a public purpose charge (PPC) that established an annual expenditure by two investor-owned electric utilities – Portland General Electric (PGE) and Pacific Power – of 3 percent of their revenues to fund energy efficiency, development of new renewable energy, and low-income weatherization. ORS 757.612, the Oregon statute that outlines the requirements for PPC expenditures, allocates the first 10 percent of collected funds to be distributed to school districts located within PGE's and Pacific Power's service territories. Of the remaining 90 percent balance, the statute designates 63 percent for energy conservation, 19 percent for renewable energy resources, 13 percent for low-income weatherization, and 5 percent for low-income housing. Those designated provisions result in the total allocation percentages of the PPC funds to the five different public purposes highlighted below:

- First 10 percent of funds to School Districts
- 56.7 percent to Conservation
- 17.1 percent to Renewable Energy
- 11.7 percent to Low-income Weatherization
- 4.5 percent to Low-income Housing

Three entities administer the funds to accomplish the five public purposes. Two are state agencies: Oregon Department of Energy (ODOE) and Oregon Housing and Community Services (OHCS). The third is an independent nonprofit organization, Energy Trust of Oregon, which operates under a grant agreement with the Oregon Public Utility Commission. Figure ES-1 below shows how total PPC fund receipts were allocated across administrators and program focus from July 2017 through June 2019. The Self-Direct Conservation portion (1.5 percent) plus the Energy Trust of Oregon Conservation portion (55.2 percent) is equal to the 56.7 percent Conservation allocation outlined above. The Self-Direct Renewables portion (1.3 percent) plus the Energy Trust of Oregon Renewables portion (15.7 percent) is equal to the 17.1 percent (rounded) Renewables allocation.

Figure ES-1: PPC Fund Receipt Allocation by Administrator and Program (July 1, 2017 – June 30, 2019)



RECEIPTS AND EXPENDITURES SUMMARY

Table ES-1 summarizes the agency receipts and expenditures by PPC fund administrator for the PPC fund from July 1, 2017 through June 30, 2019. Across all of the PPC fund administrators, total receipts combined to be \$188,452,312, and the expenditures on programs and projects were \$164,211,306 during this period.

Table ES-1: PPC Receipts and Expenditures Summary (July 1, 2017 - June 30, 2019)

Fund Administrator / Program	Receipt Source			Expenditures		
	PGE	Pacific Power	Total	PGE	Pacific Power	Total
School Districts	\$11,051,774	\$7,808,672	\$18,860,446	\$2,841,883	\$2,144,819	\$5,778,602
Oregon Housing and Community Services ¹	\$17,903,873	\$12,656,382	\$30,560,255	\$15,096,524	\$10,235,784	\$28,200,391
Low-income weatherization	\$12,930,575	\$9,140,218	\$22,070,793			
Low-income housing	\$4,973,298	\$3,516,164	\$8,489,462			
Energy Trust of Oregon	\$77,187,472	\$56,910,526	\$134,097,998	\$69,964,021	\$55,334,679	\$125,298,700
Conservation	\$59,954,982	\$44,263,854	\$104,218,836			
Renewables	\$17,232,490	\$12,646,672	\$29,879,162			
Self-Direct	\$4,171,689	\$761,924	\$4,933,613	\$4,171,689	\$761,924	\$4,933,613
Conservation	\$2,633,479	\$68,288	\$2,701,767			
Renewables	\$1,538,210	\$693,636	\$2,231,846			
Totals	\$110,314,808	\$78,137,504	\$188,452,312			\$164,211,306

¹ OHCS does not track expenditures by utility.

ES-2 shows the timing of PPC receipts and expenditures starting from July 2017 for each PPC fund administrator. Unexpended funds or funds left over from previous periods are listed, in addition to new receipts and expenditures during the July 2017-June 2019 period.

**Table ES-2: Cumulative PPC Receipts, Expenditures, and Balances
(July 1, 2017 - June 30, 2019)**

Fund Administrator / Program	7/2017 Starting Balance*	7/2017-6/2019 Receipts	7/2017-6/2019 Expenditures	6/2019 Ending Balance
School Districts	\$1,601,498	\$18,860,446	\$5,778,602	\$14,683,342
Oregon Housing and Community Services	\$15,589,390	\$30,560,255	\$28,200,391	\$17,949,254
Energy Trust of Oregon	\$8,662,697	\$134,097,998	\$125,298,700	\$17,461,955
Self-Direct	\$0	\$4,933,613	\$4,933,613	\$0
Totals	\$25,853,585	\$188,452,312	\$164,211,306	\$50,094,551

* Due to the change from calendar year reporting to biennium reporting 01/2015 – 06/2015 data are not reflected in this table.

Starting balance is only based on the “Carry Forward” data from previous reports. Ending Balance equals the Starting Balance plus Receipts minus the Expenditures. Due to the change from calendar year reporting to biennium reporting 01/2015 – 06/2015 data is not reflected in this table. Note that the timing of different program activities may affect the potential for positive or negative balances between reporting periods. For example, School Districts expenditures reflect the full PPC eligible cost at the time of completing the project (which may have been reported in previous reports) but they only receive the funds monthly to reimburse those expenditures. Due to this timing, some school districts have a negative balance of PPC funds and others have a positive balance of PPC funds.

2 Background

In July 1999, Senate Bill 1149 (SB 1149) was enacted to establish consistent, reliable funding for investments in energy efficiency and renewable energy for Oregon residents, businesses, and schools. The funding, called a public purpose charge (PPC), comes from customers of Portland General Electric (PGE) and Pacific Power. The funds are invested on the utilities' behalf in low-income weatherization; low-income bill assistance; energy-saving improvements in homes, schools, and businesses; and small-scale renewable energy systems including solar. The PPC was created in recognition that the most affordable way to serve the energy needs of Oregon is through conservation and efficiency, while small-scale renewable energy investments diversify Oregon's energy portfolio. Investments in energy efficiency deliver additional benefits, such as improved air quality and comfort in homes, enhanced productivity in school and business settings, and lower greenhouse gas emissions. The recommendation to dedicate a percentage of utility revenues to these purposes was first proposed during a regional discussion on energy planning for the Pacific Northwest. SB 1149 was ultimately passed with support from the state, investor-owned utilities, residential and industrial utility customer representatives, energy and environmental groups, and others. The bill also outlined the specific administrators that were responsible for running the funded programs. The administrators of the various programs funded with the PPC are:

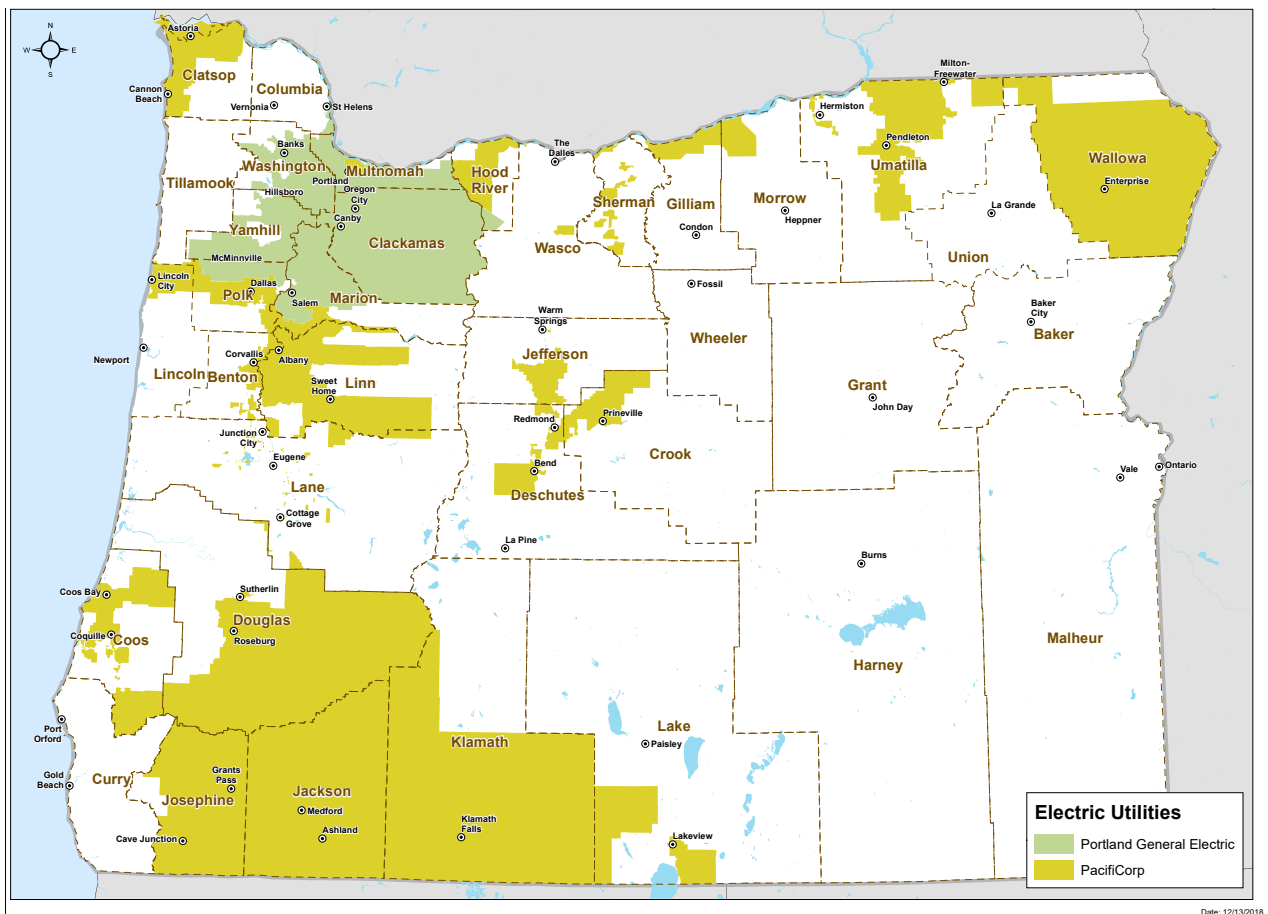
- **School Districts.** Oregon has 111 school districts within PGE's and Pacific Power's service territories. The districts collectively receive the first 10 percent of PPC funds to improve energy efficiency in schools. Oregon Department of Energy (ODOE) facilitates the administration of the Public Purpose Charge (SB 1149) Schools Program. ODOE approves reimbursement of school district PPC funds for allowable expenditures including energy efficiency measures.
- **Oregon Housing and Community Services (OHCS).** OHCS receives and administers PPC funds for two low-income housing programs. Four and one-half percent of the PPC funds are dedicated to affordable housing development projects; these projects involve construction of new housing or rehabilitation of existing housing for low-income families through the OHCS Housing Trust Fund. OHCS operates two weatherization programs, and an additional 11.7 percent of the total PPC funds collected are allocated for the weatherization of dwellings of low-income residents in PGE's and Pacific Power's service territories. One program provides home weatherization (for single- and multi-family, owner occupied, and rental housing) and the other provides for weatherization upgrades for affordable multi-family rental housing through the Oregon Multifamily Energy Program.
- **Energy Trust of Oregon, Inc.** The nonprofit Energy Trust of Oregon began administering funds in March 2002 and develops and implements 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 territories of PGE and Pacific Power. Energy Trust receives 73.8 percent of the available PPC funds less any self-

directed funds; 56.7 percent of the total PPC funds are dedicated to conservation programs, and 17.1 percent of the funds are dedicated for renewable energy projects.

- Self-Direct.** In lieu of using Energy Trust incentives, eligible self-directing consumers – which are large commercial and industrial customers using more than one average megawatt of electricity at one site in the prior year – can manage their own energy conservation or renewable energy projects. These “self-direct” customers can deduct the cost of projects, certified by ODOE, from the conservation and renewable resource development portion of their PPC obligation to utilities. ODOE administers the self-direct program.

Given that the PPC funding comes from electric utility customers of PGE and Pacific Power, the goal of the fund is to distribute the resources across the utilities’ service territories, which do not cover the entire state of Oregon. The map below outlines the distinct service territories for PGE and Pacific Power (PacifiCorp) across Oregon.

Figure 2-1: PGE and Pacific Power Service Territories



In October 2018, 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) for the July 1, 2017 through June 30, 2019 biennium. The biennium reporting period was updated in 2018 to stay consistent with the state's fiscal year biennium which the Oregon Department of Energy, Oregon Housing and Community Services, and Oregon Public Utility Commission (OPUC) operate under.

Specifically, Evergreen Economics

- Documented PPC disbursements to each PPC fund administrator by PGE and Pacific Power;
- Demonstrated how each PPC fund administrator utilized funds; and
- Summarized important project accomplishments.

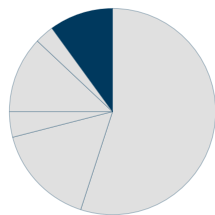
This report does not attempt to evaluate how well the various PPC programs are being implemented, nor has Evergreen Economics attempted to independently verify the energy savings and other accomplishments reported by the PPC fund administrators.

The remaining sections in this report describe how each PPC fund administrator 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 miscellaneous expenses

3 School Districts

3.1 Overview



The first 10 percent of the public purpose charge (PPC) funds are distributed directly to the 111 school districts located within PGE's and Pacific Power's service territories. In cooperation with the school districts, Oregon Department of Energy (ODOE) facilitates the administration of the Public Purpose Charge (SB 1149) Schools Program. More than 820 schools within the 111 school districts are eligible for the program and PPC funding.

These funds are used for energy efficiency projects at individual schools within each school district. Specific guidelines must be followed for eligibility, reporting, and reimbursement processes. School districts may use PPC funds to:

1. Complete energy audits at eligible schools by a qualified energy audit firm. These energy audits identify energy efficiency opportunities (i.e., lighting upgrades, HVAC upgrades, building envelope improvements, etc.);
2. Implement eligible energy efficiency measures; and
3. Complete commissioning services of installed energy efficiency measures that are more complex (program guidelines specify measure categories that are required to have commissioning services completed).

ODOE provides program oversight of the energy audits and energy efficiency projects for the school districts to ensure consistency across the school districts and adherence to the program guidelines. The school districts receive the PPC funds directly from the utilities; however, they need ODOE approval to reimburse eligible expenditures with PPC funds. Prior to HB 2960, which went into law in June 2011, the PPC funds were distributed to the education service districts to manage on behalf of the school districts.

3.2 Receipts and Expenditures

Table 3-1 summarizes the number of school districts that received PPC funds, the total fund receipts, and the total expenditures for the July 2017 through June 2019 biennium. The school district expenditures are categorized by audits, installed energy efficiency measures, commissioning costs, school district administrative expenses, ODOE administrative expenses, and



Umatilla School District completed energy efficiency measures, including control upgrades at all three schools that leveraged bond funds with PPC funds and Energy Trust incentives. The district is also developing ongoing energy use teams that include students (grades 5-12) and staff.

\$25,000

In estimated energy savings annually

ODOE program expenses. Combined school district and ODOE administrative costs represented approximately 5.4 percent of total program expenditures.

Table 3-1: School Districts Receipt and Expenditure Summary (July 2017 - June 2019)

Transaction	PGE	Pacific Power	Total
# of School Districts receiving funds	42	73	111
Total Fund Receipts	\$11,051,775	\$7,808,672	\$18,860,447
Expenditures			
Audits	\$575,740	\$56,016	\$631,756
Conservation Measures - Installed	\$2,181,493	\$2,088,803	\$4,270,296
Commissioning costs	\$84,651		\$84,651
SD Admin Expenses			
ODOE Admin Expenses			\$309,674
ODOE Program Expenses			\$482,225
Total Expenditures	\$2,841,883	\$2,144,819	\$5,778,602

3.3 Results

Table 3-2 summarizes the key results from the School District PPC fund distribution, highlighted by the number of completed audits and installed energy efficiency measures. During the July 2017 through June 2019 biennium, the program completed 89 audits across 24 school districts. These 24 school districts represent approximately 22 percent of the total school districts that are eligible for PPC funding.

During the same time period, school districts installed 123 energy efficiency measures, 56 percent of which were installed in PGE’s service territory. These measures are estimated to save 3,004,814 kWh in electricity and 148,100 therms of natural gas annually. The school districts’ total savings from the installed measures are estimated to be \$342,441 each year. School districts are able to extend their other funds (e.g., bond funds, maintenance funds, etc.) with their PPC funds to increase their total energy savings.



Riddle School District installed a high efficiency condensing boiler at its elementary school using PPC funds and Energy Trust incentives.

\$4,000

In estimated energy savings annually

The program has a maximum reimbursement amount for each eligible measure that caps the reimbursement of PPC funds at the annual energy cost savings multiplied by the estimated measure life. In September 2016, the program guidelines were updated to allow the use of PPC funds and Energy Trust incentives on the same energy efficiency measures. However, the combined PPC funds and Energy Trust incentives must not exceed the maximum reimbursement amount. This co-funding does not increase the total amount of funds that a school district can use or receive for any eligible energy efficiency measure, but it does effectively save PPC funds to be used on additional measures and could potentially increase the total number of energy efficiency measures implemented within the school district.

Table 3-2: School District Audits and Energy Efficiency Measure Results (July 2017 - June 2019)

	PGE	Pacific Power	Total
Audits Completed	64	25	89
# of School Districts – Audits Completed	13	12	24*
Energy Efficiency Measures Installed	69	54	123
# of School Districts – Measures Installed	10	11	21
Average Estimated Measure Life (years)	18.3	17.8	
Annual Savings			
Electricity Savings (kWh)	1,413,128	1,591,686	3,004,814
Natural Gas (therms)	51,014	97,086	148,100
Other Fuel (gal)	1,105	-346	759
Total Annual Energy Cost Savings (\$)	\$154,369	\$188,073	\$342,441
Total Savings (Btu)	10,077,779,864	15,098,238,818	25,176,018,682
Total Annual Energy Savings (\$)	\$154,369	\$188,073	\$342,441
PPC Funds on Installed Measures	\$2,181,493	\$2,088,803	\$4,270,296
School District Funds on Installed Measures	\$6,803,029	\$2,253,483	\$9,056,512
Total Cost of Installed Measures	\$8,984,522	\$4,342,286	\$13,326,808

* This total refers to the number of school districts that have completed audits during this timeframe. One of the school districts completed audits in PGE territory and in Pacific Power territory therefore resulting in a total of 24 school districts.

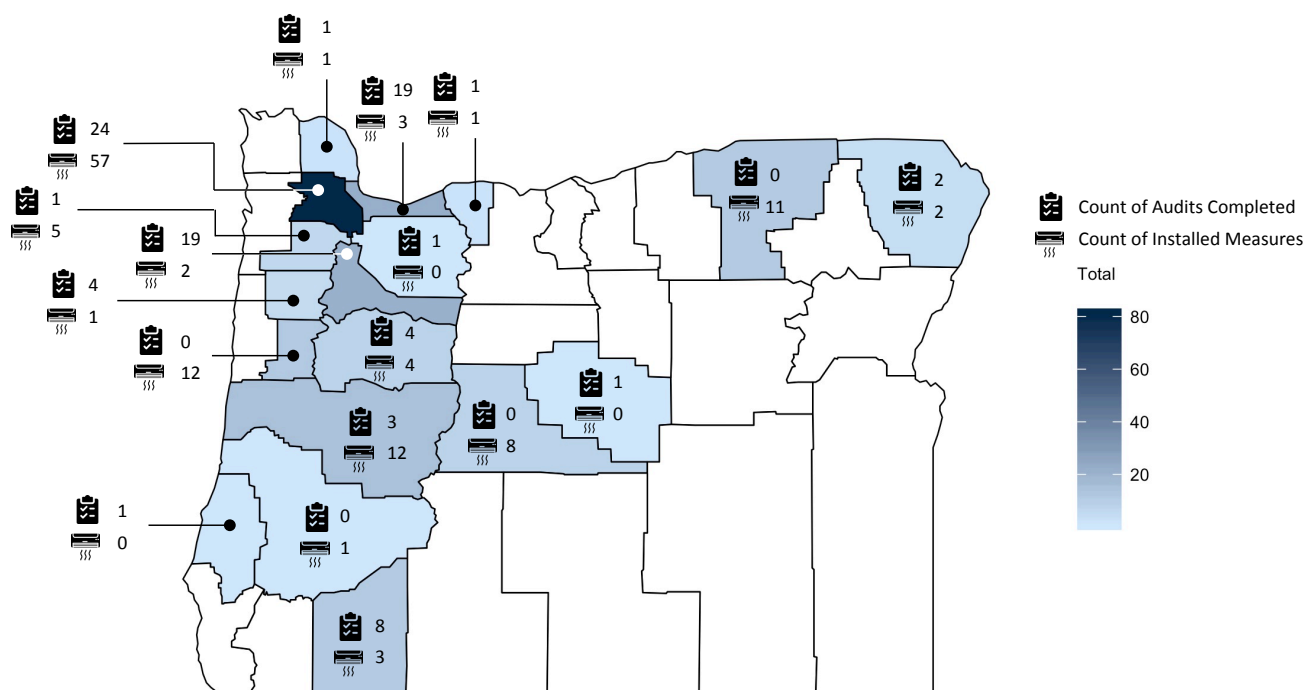
Table 3-3 summarizes the total number of energy efficiency measures installed during this biennium and previous biennia.

Table 3-3: Number of Energy Efficiency Measures Installed by Biennium

	PGE	Pacific Power	Total
Energy Efficiency Measures Installed 2017 – 2019 Biennium	69	54	123
Energy Efficiency Measures Installed 2015 – 2017 Biennium	100	25	125
Energy Efficiency Measures Installed 2013 – 2015 Biennium	176	57	233

The map below shows the PPC Schools Program completed activities for the 2017-2019 biennium by Oregon county. A total of 18 counties completed energy audits and/or installed energy efficiency measures at school districts.

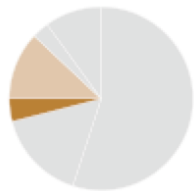
Figure 3-1: Completed Energy Audits and Installed Energy Efficiency Measures by County



Visit Oregon Department of Energy's website for additional information: <https://www.oregon.gov/energy/energy-oregon/Pages/Public-Purpose-Charge.aspx>

4 Oregon Housing and Community Services

4.1 Overview



The Oregon Housing and Community Services (OHCS) administers programs that provide financial support and resources for Oregonians of lower and moderate income. Programs target homelessness, financing for multifamily affordable housing, and homeownership development and assistance, among others. The Housing Development Grant Program (HDGP), commonly known as the Housing Trust Fund,

receives 4.5 percent of PPC funds. The HDGP is designed 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, and 75 percent of program funds must be used to develop affordable housing that supports households whose gross income is at or below 50 percent of the area median income (AMI) with the remainder serving households up to 80 percent AMI. The majority of program resources are awarded through a competitive application process that occurs twice annually, once for the spring funding cycle and once for the fall funding cycle. Funding preference is given to project applicants who provide services appropriate for the targeted tenant population.

“Low income weatherization programs blunt the harsh effects of Oregon’s increasingly severe winters for vulnerable populations. Families with young children, seniors, and people with disabilities are gravely impacted by extreme weather, and these investments are critical to lowering the costs of heating as well as reducing the climate impacts facing future generations.”

Margaret Salazar, OHCS Executive Director

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 is partially funded by the PPC and receives 11.7 percent of PPC revenues. That revenue contributes to grants for the construction or rehabilitation of affordable rental housing that is located in PGE’s or Pacific Power’s service territories. Use of these funds requires that at least 50 percent of the homes in the project be rented to households whose income is at or below 60 percent of the AMI. 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 for energy efficient appliances and lighting. The program also provides home weatherization for single- and multi-family, owner occupied, and rental housing. In either case, projects supported by PPC funds for weatherization are required to have a conservation element.

4.2 Receipts and Expenditures

Table 4-1 provides a summary of the Low-Income Housing and Weatherization portions of PPC fund receipts and expenditures from July 1, 2017 through June 30, 2019. Funds received by OHCS during this period amounted to \$30,560,255, and expenditures including commitments totaled \$41,671,756, with administrative expenses comprising 3.6 percent of total expenditures.

Table 4-1: OHCS Receipt and Expenditure Summary (July 2017 – June 2019)

Transaction	PGE	Pacific Power	Total
Receipts			
Low-Income Weatherization			
Administration	\$646,529	\$457,011	\$1,103,540
Evaluation, Training, and Technical Assistance	\$646,529	\$457,011	\$1,103,540
ECHO	\$9,697,931	\$6,855,163	\$16,553,094
Multi-Family Rental Housing	\$1,939,586	\$1,371,033	\$3,310,619
Total Low-Income Weatherization	\$12,930,575	\$9,140,218	\$22,070,793
Low-Income Housing			
Administration	\$248,665	\$175,808	\$424,473
Program	\$4,724,633	\$3,340,356	\$8,064,989
Total Low-Income Housing	\$4,973,298	\$3,516,164	\$8,489,462
Total Fund Receipts	\$17,903,873	\$12,656,382	\$30,560,255
Expenditures			
Design and Marketing – TRC	\$602,322	\$602,322	\$1,204,644
TRC – Committed but Unexpended	\$831,590	\$831,590	\$1,663,180
Low-Income Weatherization*	\$14,183,023	\$9,395,887	\$23,578,910
Committed but unexpended	\$3,289,864	\$2,157,259	\$5,447,123
Low-Income Housing**			\$ 914,649
Committed but unexpended			\$6,342,409
Administrative Expenses**			\$1,373,077
Evaluation, training, technical assistance**			\$580,357
Committed but unexpended			\$18,653
Energy Education	\$311,179	\$237,575	\$548,754
Committed but unexpended	\$0	\$0	\$0
Total Expenditures (w/o Committed)**	\$15,096,524	\$10,235,784	\$28,200,391
Total Expended including Committed**	\$19,217,978	\$13,224,633	\$41,671,756

* 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.

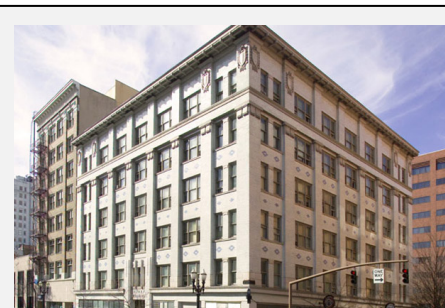
4.3 Results

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

OHCS contracts with local Community Action Agencies (CAAs) to deliver the program. This local network of sub-grantees determines applicant eligibility and delivers services. Households must apply through the local CAA and, if eligible, they 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 measures 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

The map below also summarizes how the Low-Income Weatherization program helped fund 1,523 ECHO units with a total job investment of over \$11,756,106. The completed ECHO projects helped save over 18,679,380 million kWh. Across the 1,523 homes, 42 percent were completed in Multnomah and Washington Counties, accounting for 41 percent of the total job investment and 44 percent of the kWh savings.



The **Henry Building** provides safe, affordable homes to 173 low-income households. Central City Concern rehabilitated the 1909 historic building in Portland using OHCS housing preservation funds. PPC funds enabled increased energy efficiency and livability for residents.

Figure 4-1: ECHO Units and kWh Saved by County

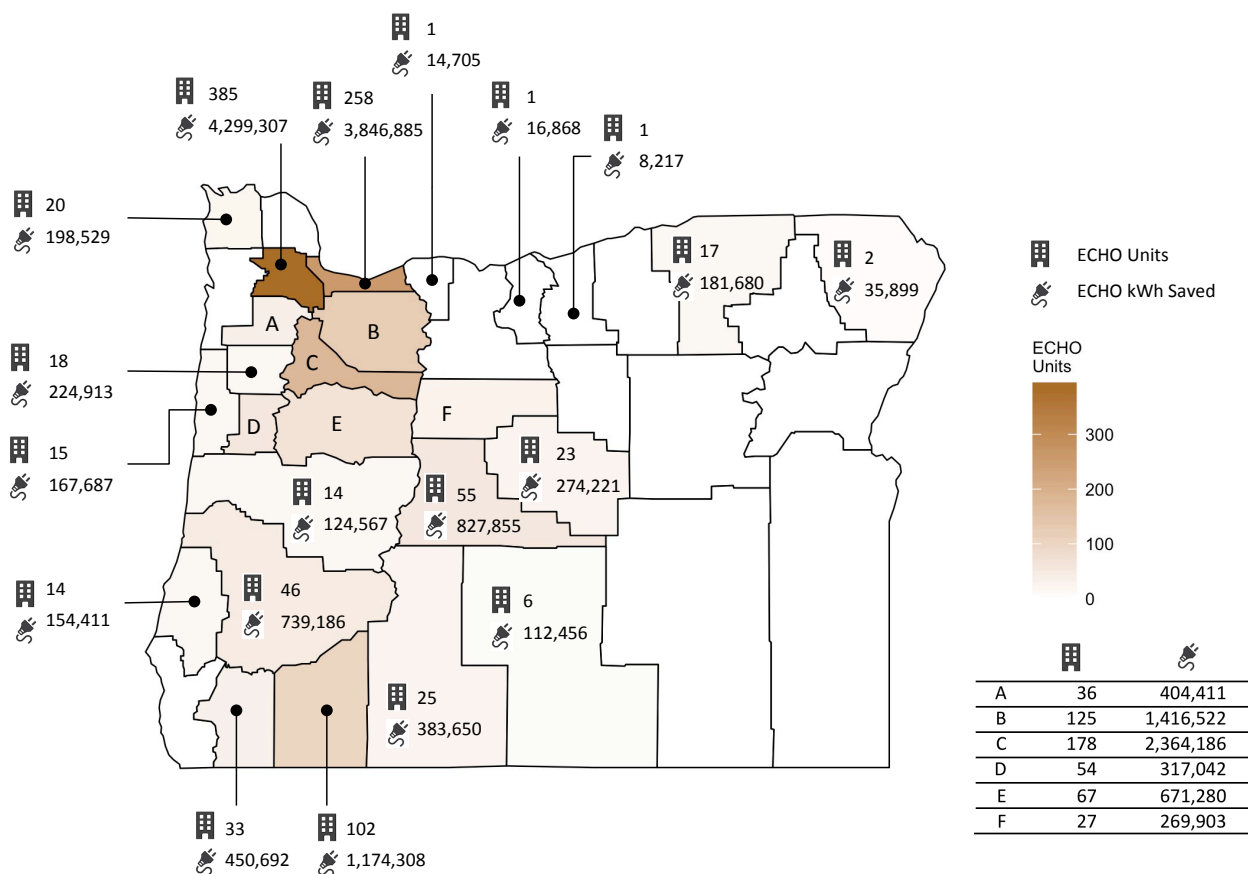


Table 4-2 below shows the total number of OHCS Low-Income Weatherization and Housing projects, along with the number of completed homes, for each county covered by OHCS programs. Overall, OHCS completed 9 multi-family rental projects through the Low-Income Multifamily Weatherization program with a total of 1,253 homes weatherized.

“We can now sleep well at night knowing that we are safe and that we will have a warm place to be this winter. This program has given us peace of mind, reduced our stress, and we now have a calmer existence.”

- Eric Schwartz, Weatherization program participant

Table 4-2: Low-Income Weatherization Multifamily Rental Weatherization Projects

County	Number of Projects	Number of Units in County
Multnomah	7	1,088
Washington	1	45
Benton	1	120
Total	9	1,253

The 9 multifamily rental Low-Income Multifamily Weatherization projects resulted in 2,034,219 kWh in annual energy savings. The projects also helped serve a diverse population including elderly residents, households, special needs families, veterans, and farm workers.

Populations Served by Low-Income Multifamily Rental Weatherization Projects

346	624	124	203	153
Elderly	Families	Special needs families	Veterans	Farm workers

Table 4-3 shows that 50 percent of weatherization projects were completed in units where household income is between 51 and 60 percent of the area median income, and 24 percent of units where household income is between 30 percent or less of the area median income.

**Table 4-3: Low-Income Weatherization (Multi-Family) Accomplishments
(July 2017 - June 2019)**

Accomplishments	Total Units	% of Total Units
Units where household income is between 61 and 80 percent of the area median income	0	
Units where household income is between 51 and 60 percent of the area median income	630	50%
Units where household income is between 41 and 50 percent of the area median income	240	19%
Units where household income is between 31 and 40 percent of the area median income	84	7%
Units where household income is equal or less than 30 percent of the area median income	299	24%

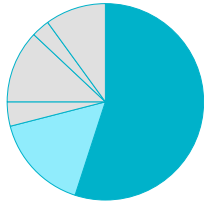
Table 4-4 summarizes the number of low-income housing projects and the number of homes by county.

Table 4-4: Low-Income Housing Projects (July 2017 - June 2019)

County	Number of Projects	Number of Units in County
Columbia	1	16
Multnomah	1	101
Deschutes	1	90
Total	3	207

5 Energy Trust of Oregon

5.1 Overview



The Oregon Public Utility Commission (OPUC) designated Energy Trust of Oregon, Inc. to administer the conservation and renewable resource components of the public purpose charge (PPC). Energy Trust helps meet the state’s utility customer demand with the lowest-cost energy available at a fraction of the cost of other energy sources and diversifies Oregon’s energy mix with generation from small-scale renewable energy systems.

Energy Trust began operation in March 2002, charged by the OPUC with investing in cost-effective energy efficiency, helping to lower the above-market costs of renewable energy resources, delivering services with low administrative and program support costs, and maintaining high levels of customer satisfaction. Energy Trust is committed to helping all customers manage their energy use, including people with lower incomes, communities of color, small businesses, and rural customers.

Energy Trust provides information, cash incentives, and technical assistance to help people, businesses, and communities save energy and generate renewable power. Programs are available to renters, homeowners, multifamily property owners, commercial and industrial businesses, farms and ranches, nonprofits, and government agencies. Many services are delivered to customers by trade ally contractors and program allies and promoted in collaboration with communities and nonprofits.

With a commitment to keep internal costs low, guarantee ratepayer benefits, and provide services relevant for all customers, Energy Trust invests in:

- Saving energy cost-effectively.** Energy efficiency is one of the most affordable resources to power, light, and heat buildings and homes. When Energy Trust provides a cash incentive for an energy-saving improvement or service and helps bring new high-efficiency products and services to the market, customers know the benefits of the investment will outweigh the costs over time. Like many energy

Case Study: Eastern Oregon Correctional Institution, Pendleton

With support and \$339,400 in cash incentives from Energy Trust, Eastern Oregon Correctional upgraded to new, energy-efficient equipment such as chillers, boilers, heat pumps, insulation, LEDs and energy-saving behavioral changes. In total, these investments are saving the institution \$260,000 annually on energy costs.

“It’s now common practice for us to call Energy Trust first. Whether it’s a big equipment decision, lighting upgrade or something else—we reach out to Energy Trust to start the process.”

- Mike Cleveland, physical plant manager, Eastern Oregon Correctional Institution

efficiency programs nationwide, Energy Trust uses cost-effectiveness tests² to inform whether an investment of PPC money in an energy efficiency action will have a benefit that outweighs the cost of the investment.

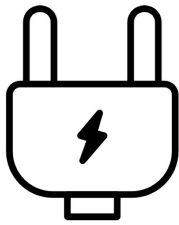
- **Making it more affordable to install renewable energy systems.** The organization offers early project development assistance and installation incentives for small-scale solar, hydropower, biopower, geothermal, and certain wind projects. While SB 1149 did not specify system size for renewables investments, subsequent legislation capped investments at systems of 20 megawatts or less in size. Energy Trust’s incentive lowers above-market costs, the difference between the value of the power produced by a renewable energy project and what it costs to produce the power from the project. These renewable energy projects reduce energy costs, support local economies, diversify energy sources, help develop the electricity grid of tomorrow, and can support customers’ other goals such as community resiliency, water conservation, or waste management.
- **Transforming markets to offer more energy-efficient products and services.** Through ongoing collaboration with the Northwest Energy Efficiency Alliance (NEEA), Energy Trust works to make energy-efficient products, services, and behaviors standard practice. Utility customers benefit when they purchase appliances and equipment with automatic energy-efficiency features, and newly constructed buildings with energy efficiency built in.

Energy Trust is a nonprofit overseen by a volunteer board of directors and the OPUC. Through a grant agreement with the OPUC, Energy Trust operates to achieve annual minimum performance measures, report quarterly and annually on progress to annual goals, track and report on progress related to five-year strategic plan focus areas, and contract for an independent management audit every five years.

Following its inception in 2002, Energy Trust funding was expanded by the OPUC to enable more energy savings opportunities. This was accomplished through regulatory agreements with NW Natural, Cascade Natural Gas, and Avista, as well as through Oregon’s Renewable Energy Act (SB 838), which allowed PGE and Pacific Power to capture additional, cost-effective electric efficiency above what could be obtained through the 3 percent charge. Additional SB 838 funding includes additional investments in school buildings beyond the funding allocated through SB 1149. This report addresses only the original conservation and renewable resource public purpose funding through SB 1149.

Visit www.energytrust.org/About to learn more.

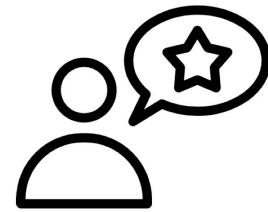
² Energy Trust applies the definition of cost-effective in the OPUC’s docket UM 551. More information on Energy Trust cost-effectiveness tests can be found in the cost-effectiveness fact sheet: https://www.energytrust.org/wp-content/uploads/2016/11/GEN_FS_CostEffectiveness.pdf



471,842,000 kWh
Energy saved and generated



\$31.3 million
Bill Savings



95%
Customer satisfaction rating

5.2 Receipts and Expenditures

Energy Trust receives PPC funding as the primary administrator of the conservation (56.7%) and renewable energy (17.1%) portions of the PPC fund.³ Table 5-1 summarizes the total receipts and expenditures for Energy Trust during the July 2017 through June 2019 biennium. Receipts totaled \$134,097,998, while expenditures, including administrative costs (6.6% of expenditures), totaled \$125,298,700.

Energy Trust administrative costs adhere to generally accepted accounting practices for nonprofit organizations and were found to be reasonable by the Oregon Secretary of State in 2018.

Table 5-1: Energy Trust Receipt and Expenditure Summary (July 2017 – June 2019)

Transaction	PGE	Pacific Power	Total
Receipts			
Energy Conservation	\$59,954,982	\$44,263,854	\$104,218,836
Renewable Energy	\$ 17,232,490	\$12,646,672	\$29,879,162
Total Fund Receipts	\$77,187,472	\$56,910,526	\$134,097,998
Expenditures			
Energy Conservation	\$54,017,612	\$40,141,125	\$94,158,737
Renewable Energy	\$11,397,613	\$11,491,146	\$22,888,759
Administrative Expenses	\$4,548,796	\$3,702,408	\$8,251,204
Total Expenditures	\$69,964,021	\$55,334,679	\$125,298,700

³ As outlined above, a portion of the total conservation and renewable energy distribution of the PPC funds are allocated to eligible Self Direct participants through ODOE's Self Direct program.

5.3 Results

Energy Trust conservation activities consisted of the design and delivery of conservation programs targeted to different market sectors with a wide range of energy saving measures. Table 5-2 shows the total energy savings of the individual programs delivered by Energy Trust across the residential, commercial and multifamily, industrial, and agricultural sectors, along with the savings attributable to NEEA. Overall, Energy Trust’s PPC-funded programs accounted for 421,973,037 kWh in energy savings across both PGE’s and Pacific Power’s service territories.

Table 5-2: Energy Savings and Levelized Costs⁴ by Sector and Utility

Sector	PGE (kWh)	Pacific Power (kWh)	Total (kWh)	% of Total Savings	Levelized Cost
Residential	24,891,879	24,338,581	49,230,460	12%	\$0.034
Commercial and Multifamily*	73,075,425	43,537,187	116,612,612	28%	\$0.031
Industrial and Agricultural	129,154,310	59,174,515	188,328,825	45%	\$0.018
NEEA	39,417,941	28,383,199	67,801,140	16%	\$0.013
Total	266,539,556	155,433,482	421,973,037	100%	\$0.023

* PGE and PAC Commercial Savings reduced by 710,952 and 168,540 kWh respectively to avoid potential double counting of savings for housing projects with OHCS funding and were also reduced by 1,822,185 and 1,681,495 kWh respectively to avoid potential double counting of savings for Public Schools projects with direct school district funding.

Energy Trust also invested PPC funding in renewable energy project installations using solar, hydropower and biopower. In addition to incentives for project installations, Energy Trust provided project development assistance for projects that will generate renewable energy from hydropower, biopower, geothermal, and municipal-owned community wind resources. Project development assistance incentives help reduce early stage development barriers and the financial risk of these projects. Solar projects at residential, commercial, and industrial sites, hydropower projects at irrigation districts, and biopower projects at wastewater treatment facilities are focus areas for project development assistance incentives, given the abundant energy sources and multiple benefits for customers and communities.

⁴ Levelized cost is Energy Trust’s total cost to save or generate each unit of energy over the life of an upgrade, which can range from one to more than 20 years.

Table 5-3: Number of Biopower, Hydropower, Geothermal, and Wind Projects Supported with Project Development Assistance, and Project Development Assistance Incentives Provided

Renewables	PGE Projects	Pacific Power Projects	Total	PGE	Pacific Power	Total
Biopower	4	2	6	\$286,680	\$102,403	\$389,082
Hydropower	5	31	36	\$1,257,839	\$2,756,557	\$4,014,396
Geothermal and Wind	0	0	0	\$0	\$0	\$0
Total	9	33	42	\$1,544,518	\$2,858,960	\$4,403,478

Table 5-4: Solar, Biopower, Hydropower, Geothermal, and Wind Projects Generation by Program (kWh)

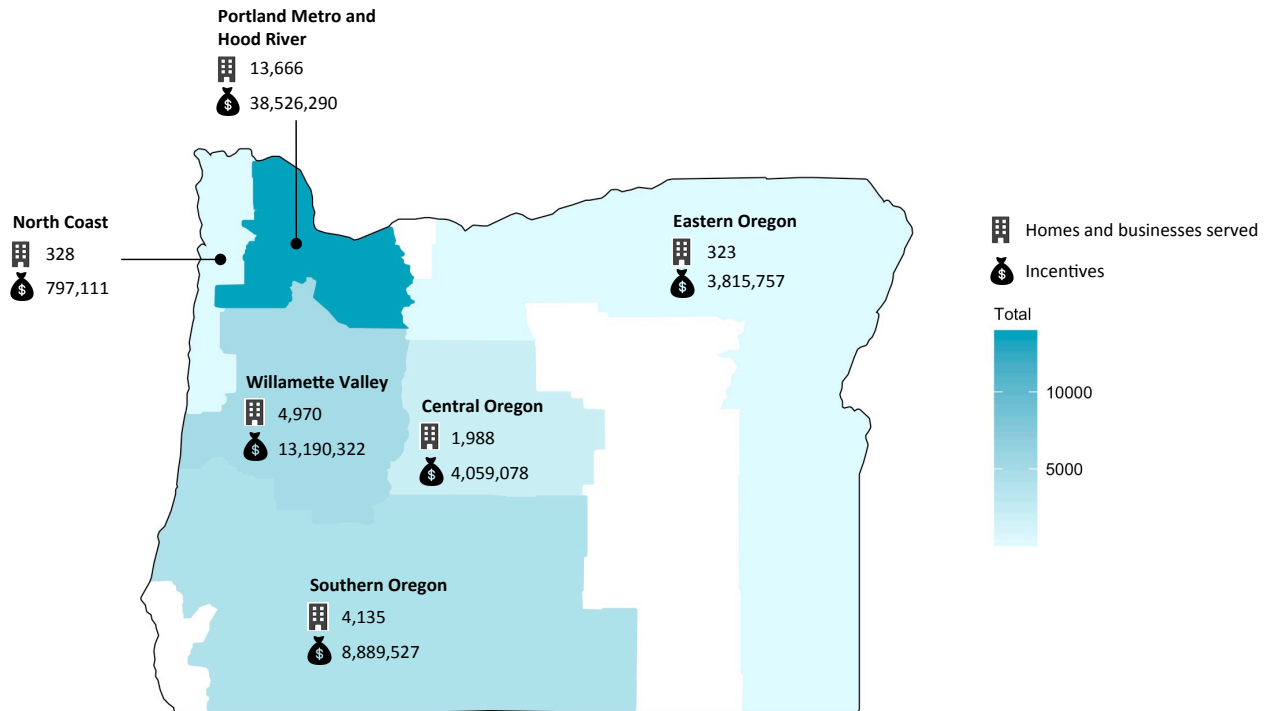
Program	PGE	Pacific Power	Total
Solar	22,933,219	26,124,731	49,057,950
Biopower, hydropower, geothermal, wind	-	811,189	811,189
Total	22,933,219	26,935,920	49,869,139

The map below shows the total number of homes and businesses served across all energy efficiency and renewable energy projects by region. Fifty-four percent of the sites served were in the Portland Metro region, accounting for 56% of the total paid incentives. The Willamette Valley region had 20% of the total sites served by PPC-funded projects (19% of incentives), followed by Southern Oregon with 16% of the sites served (13% of incentives). The majority (70%) of sites served were residential, followed by 14% in the commercial sector, 14% in the renewables sector, and 2% in the industrial sector. However, as highlighted in Table 5-2, savings are more equally shared across the residential, multifamily and commercial, and industrial and agricultural sectors due to business customers saving more energy per project than residential customers. Approximately 75% of incentives were for energy efficiency projects compared to 25% for renewable energy projects. Other key accomplishments include:

- **3,028,683** LEDs sold or installed
- **1,432** homes built above code and with energy performance scores
- **151** commercial new construction or major renovation projects completed
- **3,367** solar systems installed on homes and businesses

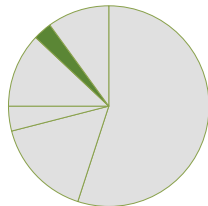
- **\$347,209** in enhanced incentives provided for moderate-income customers through Savings Within Reach incentives
- **697** Industrial and agricultural projects completed

Figure 5-1: Homes and Businesses Served and Total Incentives by Region



6 Self-Direct

6.1 Overview



Large electric consumers (with site usage over one average megawatt or 8,760,000 kilowatt hours per year) may be eligible to self-direct a portion of their public purpose charges. The Oregon Department of Energy (ODOE) reviews applications and approves sites that meet eligibility criteria to become eligible self-direct consumers. Self-direct consumers with qualifying energy conservation or renewable energy projects can claim a credit through ODOE's Large Electric Consumer Public Purpose Program (LECPPP), also known as the Self-Direct Program. Renewable energy credits may come from either on-site renewable energy generation projects or the purchase of renewable energy certificates (RECs or Green Tags).⁵ Those credits may then be used to offset the conservation and/or renewable portion(s) of the public purpose charge (PPC) on their monthly electric bills.

ODOE maintains an interactive website for large electric consumers to self-direct their PPCs. On the website, ODOE reviews and approves conservation and renewable energy projects (and Green Tags contracts), and utilities enter monthly billing data for each self-directing site; the website also tracks each site's monthly credits and credit balances. For the biennium, about 76 self-directing sites, representing about 66 companies, self-directed either their conservation or renewable portions of the PPC, or both.

6.2 Receipts and Expenditures

Receipts and Expenditures for the Self-Direct portion of PPC work differently than for other areas of the PPC funding:

- Receipts – For the other organizations administering the programs (school districts, OCHS, Energy Trust), utilities collect public purpose charges from consumers, then disburse funds directly to the organizations.
- Expenditures – The other organizations then spend those funds on their respective programs. However, for the Self-Direct program, utilities do not collect the conservation or renewable portions of the PPC from the self-directing sites, nor do they disburse the PPC funds to those sites.

For the Self-Direct program, participating eligible self-directing sites submit conservation and renewable project applications to ODOE on the LECPPP website, and ODOE pre-certifies eligible

⁵ "Green Tags", or Renewable Energy Certificates (REC), "represent one MWh of renewable energy generation delivered to the grid. They represent the environmental, economic and social attributes of the power produced from renewable energy projects." (Oregon Administrative Rules Chapter 330, Self-Direction of Public Purposes Charges By Large Retail Electricity Consumers, 10/24/18)

conservation or renewable project applications. Sites then spend their own funds to build pre-certified projects. Once the project is complete, they submit an application for credit to ODOE. ODOE reviews and approves the project eligible costs, which include a small fee paid to ODOE for program administration. Certified project costs are then added to the conservation or renewable credit balance, and the credits do not expire.

For the biennium, ODOE’s administration costs of \$63,319 and program costs of \$99,050, for a total of \$162,369, were added to eligible conservation project and Green Tags contract costs.

Each month when a site has a conservation and renewable credit balance, they are able to offset the monthly conservation and renewable portion of the PPC, meaning they do not pay the utility that portion of the PPC. The available credit balance is reduced by the monthly conservation and renewable offset amount. New certified conservation projects and Green Tags increase the site credit while monthly offsets reduce them. For the purposes of this report, the sum of all self-directing sites’ conservation and renewable offsets are defined as Self-Direct “Receipts” and “Expenditures.”

Table 6-1 shows that from July 2017 through June 2019, self-direct customers in Pacific Power’s service territory claimed \$761,924 in offsets to the conservation and renewable PPC obligation, and customers in PGE’s service territory claimed \$4,171,689. While the vast majority of conservation offsets occurred at self-direct sites served by PGE, the renewable offsets were more evenly split between the two utilities, with PGE self-direct sites accounting for 64 percent and Pacific Power self-direct sites accounting for 36 percent of the renewable PPC obligation.

Table 6-1: Self-Direct Program Receipts and Expenditures (July 1, 2017 - June 30, 2019)

Sector	PGE	Pacific Power	Total
Conservation	\$2,633,479	\$68,288	\$2,701,767
Renewable	\$1,538,210	\$693,636	\$2,231,846
Total	\$4,171,689	\$761,924	\$4,933,613

6.3 Results

Table 6-2 summarizes self-direct program conservation project certifications from July 2017 through June 2019. PGE customers certified six conservation projects with total eligible costs of \$3,230,969. Pacific Power customers certified one project with total eligible costs of \$13,841. The combined impact of these projects is 6,427,900 kWh in reduced energy consumption and \$406,447 in energy savings annually.

Table 6-2: Self-Direct Program Certified Conservation Projects

	PGE	Pacific Power	Total*
Projects Certified	6	1	7
Total Eligible Cost	\$3,230,969	\$13,841	\$3,244,810
Total Energy Cost Savings (annual)	\$403,356	\$3,091	\$406,447
Total Energy Savings (annual kWh)	6,389,260	38,640	6,427,900

*Three conservation projects were also completed in Emerald People's Utility District's (EPUD's) territory and are not reflected in the table.

Table 6-3 shows the number of conservation projects—including the three completed outside of PGE's and Pacific Power's territories in Emerald People's Utility District's (EPUD's) territory—by each measure type along with the total costs and annual energy savings. Half of the conservation projects between July 1, 2017 and June 30, 2019 were lighting modifications, accounting for 11 percent of total eligible project costs and 22 percent of total annual energy savings.

Table 6-3: Self-Direct Conservation Projects by Measure Type

Measure	Conservation Projects Certified	Total Eligible Cost	Total Annual Energy Savings	Total Annual Reduced Energy Consumption (kWh)
Controls	1	\$133,875	\$23,664	473,284
Energy Management Systems	3	\$3,199,171	\$360,318	5,807,177
Lighting Modification	5	\$440,511	\$114,822	1,767,733
Pumps	1	\$188,066	\$32,078	746,000
Total	10	\$3,961,623	\$530,882	8,794,194

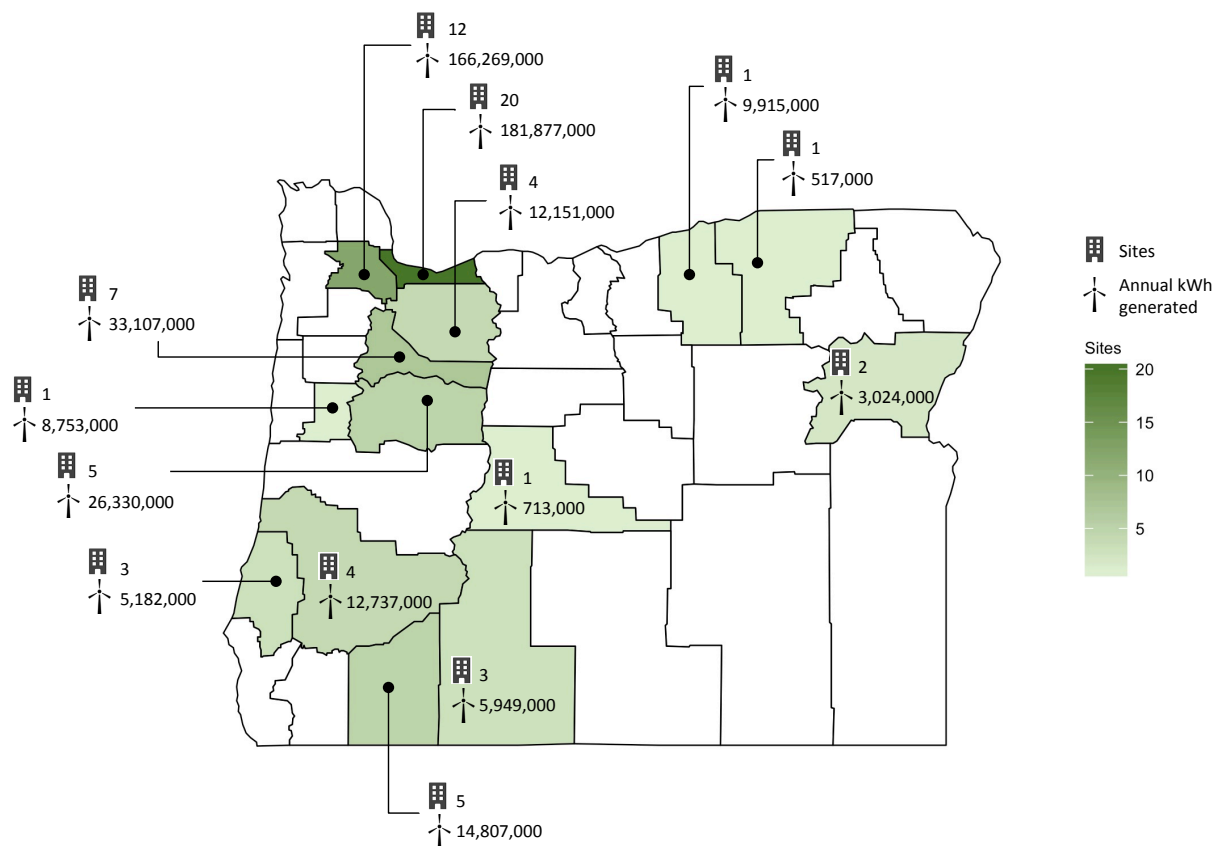
Self-directing customers can use the renewables portion of their PPC obligation to purchase Green Tags from their utility. Table 6-4 shows that 69 sites purchased Green Tag contracts between July 2017 and June 2019, worth \$1,891,138 in total credits. The average annual kWh per Green Tag contract was 6,593,575 kWh (or 6594 Renewable Energy Certificates) and in total represented over 481 million kWh of renewable energy across all PGE and Pacific Power self-directing sites.

Table 6-4: Self-Direct Renewable Green Tag Contracts

	PGE	Pacific Power	Total
Sites	38	31	69
Green Tag Contracts	38	35	73
Green Tags Purchased	383,534	97,790	481,362
Total Credits Issued	\$1,150,640	\$740,495	\$1,891,138
Total Renewable Energy Generated (kWh)	383,547,984	97,783,000	481,330,984

The map below shows the distribution of sites purchasing Green Tags along with the associated total annual kWh generated. A little less than half the sites were located in Multnomah and Washington counties, accounting for about 72 percent of the annual kWh generation.

Figure 6-1: Green Tag Sites and Annual kWh Generated by County



Visit Oregon Department of Energy’s website for additional information:
<https://www.oregon.gov/energy/energy-oregon/Pages/Public-Purpose-Charge.aspx>