



Report to Legislative Assembly on Public Purpose Charge Receipts and Expenditures

Report
Prepared by
Evergreen
Economics

Period:
July 1, 2019 –
June 30, 2021





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1 Executive Summary

Report to Legislative Assembly on Public Purpose Expenditures

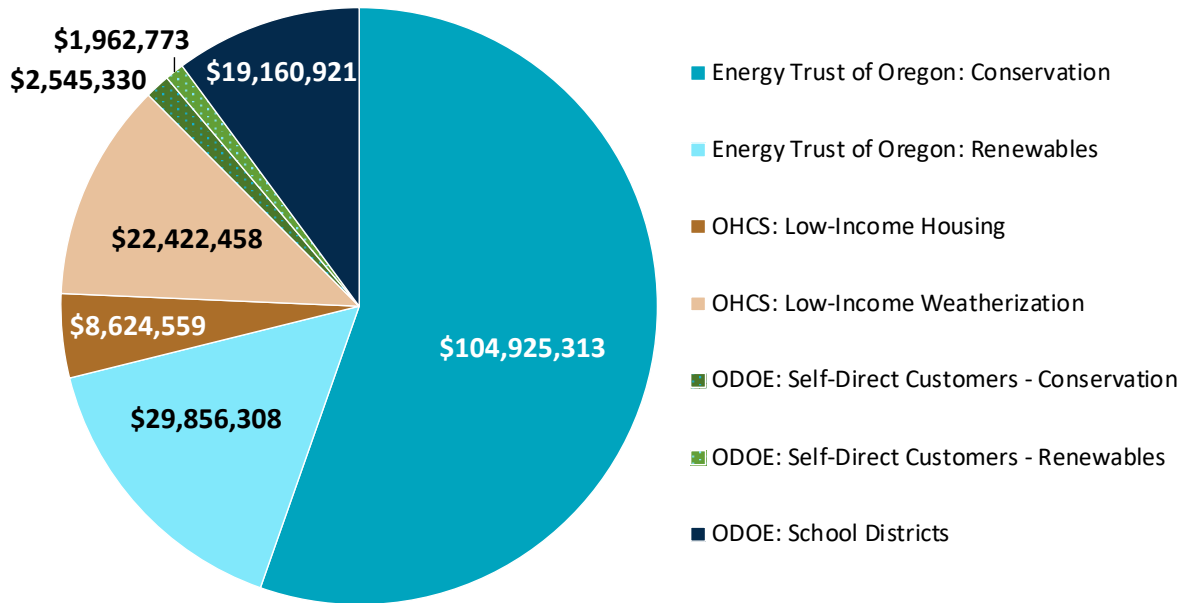
PPC FUND DISTRIBUTION

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 (OPUC). Figure ES-1 below shows how total PPC fund receipts were allocated across administrators and programs from July 1, 2019 through June 30, 2021. The Self-Direct Conservation portion (1.3%) plus the Energy Trust of Oregon Conservation portion (55.4%) is equal to the 56.7 percent Conservation allocation outlined above. The Self-Direct Renewables portion (1.0%) plus the Energy Trust of Oregon Renewables portion (15.8%) is approximately the 17.1 percent (rounded) Renewables allocation.

**Figure ES-1: PPC Fund Receipt Allocation by Administrator and Program
(July 1, 2019 – June 30, 2021)**



RECEIPTS AND EXPENDITURES SUMMARY

Table ES-1 summarizes the agency receipts and expenditures by PPC fund administrator for the PPC fund from July 2019, through June 2021. Across all the PPC fund administrators, total receipts combined to be \$189,497,662, and the expenditures on programs and projects were \$186,811,133 during this period.

Table ES-1: PPC Receipts and Expenditures Summary (July 1, 2019 – June 30, 2021)

Fund Administrator / Program	Receipt Source			Expenditures*		
	PGE	Pacific Power	Total	PGE	Pacific Power	Total
School Districts	\$11,615,594	\$7,545,327	\$19,160,921	\$11,819,813	\$6,127,268	\$18,882,638
Oregon Housing and Community Services – Total	\$18,817,261	\$12,229,756	\$31,047,017	\$12,365,785	\$8,188,206	\$33,096,833
Low-Income Weatherization	\$13,590,244	\$8,832,214	\$22,422,458			
Low-Income Housing	\$5,227,017	\$3,397,542	\$8,624,559			
Energy Trust of Oregon – Total	\$79,856,167	\$54,925,454	\$134,781,621	\$74,099,197	\$56,224,362	\$130,323,559
Conservation	\$62,249,471	\$42,675,842	\$104,925,313			
Renewables	\$17,606,696	\$12,249,612	\$29,856,308			
Self-Direct - Total	\$3,891,655	\$616,448	\$4,508,103	\$3,891,655	\$616,448	\$4,508,103
Conservation	\$2,529,645	\$15,685	\$2,545,330			
Renewables	\$1,362,010	\$600,763	\$1,962,773			
Totals	\$114,180,677	\$75,316,985	\$189,497,662			\$186,811,133

*Not all program expenditures are tracked by utility, and so amounts in the total column may exceed the sum of the expenditures in the utility-specific columns.

Table ES-2 shows the timing of PPC receipts and expenditures starting from July 2019 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 2019 through June 2021 period.

**Table ES-2: Cumulative PPC Receipts, Expenditures, and Balances
(July 1, 2019 - June 30, 2021)**

Fund Administrator / Program	7/2019 Starting Balance	7/2019-6/2021 Receipts	7/2019-6/2021 Expenditures	6/2021 Ending Balance
School Districts	\$14,683,342	\$19,160,921	\$18,882,638	\$14,961,625
Oregon Housing and Community Services	\$17,949,254	\$31,047,017	\$33,096,833	\$15,899,438
Energy Trust of Oregon	\$17,461,955	\$134,781,621	\$130,323,559	\$21,920,017
Self-Direct	\$0	\$4,508,103	\$4,508,103	\$0
Totals	\$50,094,551	\$189,497,662	\$186,811,133	\$52,781,080

Starting balance is only based on the “Carry Forward” data from previous reports. Ending balance equals the starting balance plus receipts minus the expenditures. Note that the timing of different program activities may affect the potential for positive or negative balances between reporting periods.

In 2021, the Oregon Legislature passed House Bill 3141 (HB 3141), making numerous changes to laws governing the collection and use of the PPC. These changes include extending collection of the PPC to 2036, shifting energy conservation funding for energy efficiency through utility rates, and reducing the PPC amount from 3 percent to 1.5 percent. The funding levels for the four remaining PPC components either remain the same or are slightly increased. The 1.5 percent of funding is to be allocated in the following way:

- 0.30 percent of funds to School Districts
- 0.51 percent to Renewable Energy
- 0.55 percent to Low-Income Weatherization
- 0.14 percent to Low-Income Housing

As this report reviews the July 2019 through June 2021 biennium, it does not reflect changes resulting from HB 3141.

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 health and safety benefits through 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:

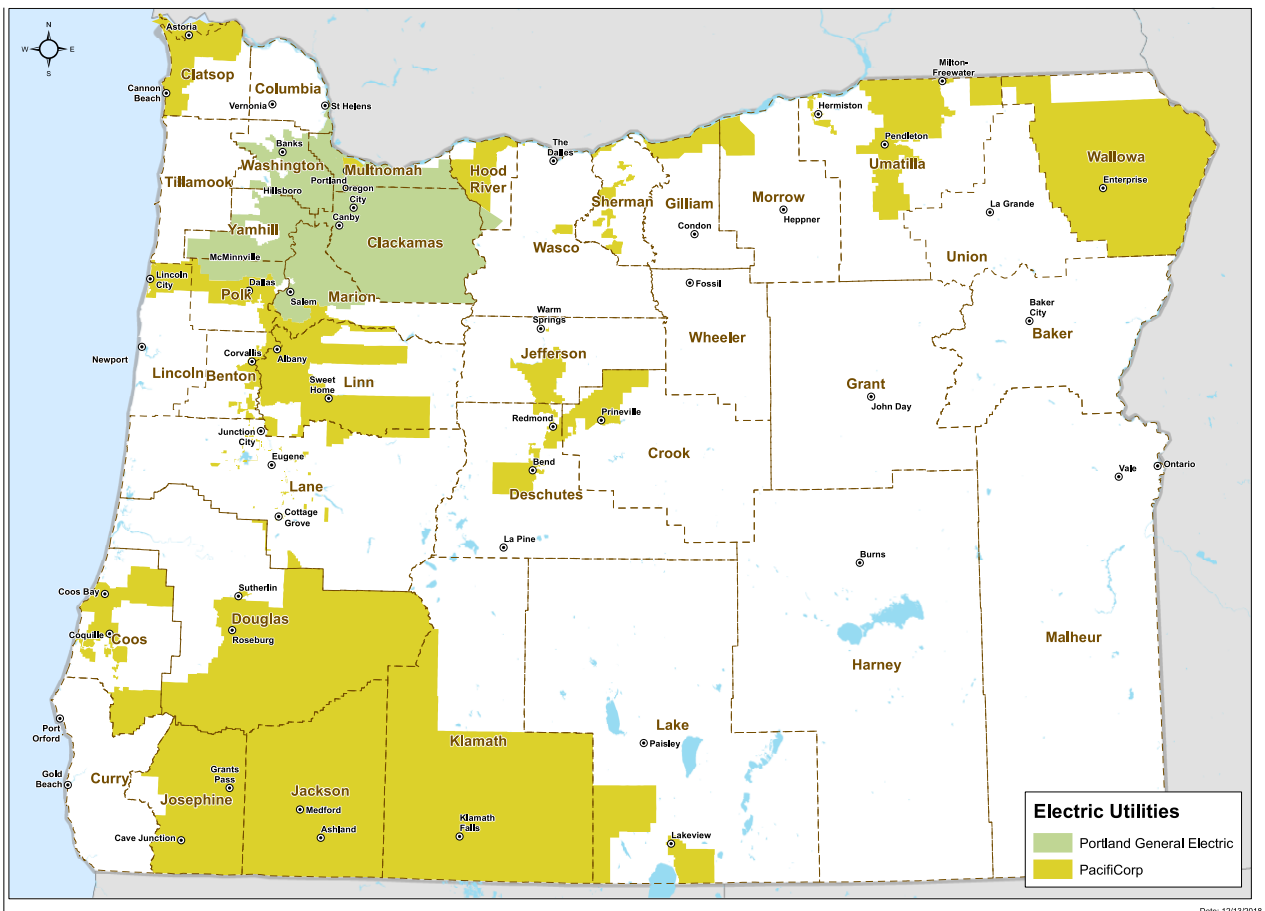
- **School Districts.** Oregon has 111 school districts within PGE's and Pacific Power's service territories. The districts collectively receive the first 10 percent of PPC funds to improve energy efficiency in schools. Oregon Department of Energy (ODOE) facilitates the administration of the Public Purpose 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-family, multifamily, owner occupied, and rental housing) and the other provides for weatherization upgrades for affordable multifamily 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, 2019 through June 30, 2021 biennium. The biennium reporting period was updated in 2018 to stay consistent with the state's fiscal year biennium, under which ODOE, OHCS, and OPUC operate.

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.

This report describes how each PPC fund administrator used its allocated funds. Across all programs, 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

2.1 Reporting on Greenhouse Gas Emission Impacts

On March 10, 2020, Governor Brown issued Executive Order 20-04 (EO 20-04) which establishes new greenhouse gas (GHG) emissions goals for Oregon and directs state agencies to identify and prioritize actions to meet those goals. In response to EO 20-04, GHG emission impacts are being added to this report. The addition of these impacts will inform future work and recommendations to improve the GHG emission-related benefits of PPC funded investments.

GHG impacts are reported for investments from the July 2019 through June 2021 biennium, and are generally reported as high-level, program totals. Impacts are reported as emission *reductions*, as well as *avoided* emissions. GHG emissions reduction data are calculated based on energy *savings* resulting from efficiency measures, while avoided GHG emissions data are calculated based on the energy *generated* by renewable projects, as reported by each administrator of PPC funds.

The GHG emissions calculations utilize the most current emission factors from the Oregon Department of Environmental Quality (DEQ), based on each utility’s emission profile. These emission factors, from 2019, are multiplied by the amount of energy saved or generated, usually measured in kilowatt-hours, or kWh. The resulting GHG emission impact is expressed in units of metric tons of carbon dioxide equivalents, or MT CO₂e. The emissions calculation methodology is provided in Table 2-1.

Table 2-1: Emissions Calculation Methodology*

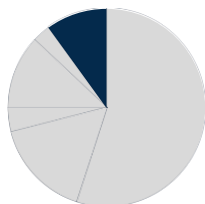
Project Electricity Savings	Savings Converted: kWh to MWh	DEQ Provider Specific Emission Factors	Emission Impact Calculation	Emission Impact
kWh	kWh/1,000	Department of Environmental Quality: Greenhouse Gas Emissions Reported to DEQ: Air Quality Programs: State of Oregon	MWh*Factor	MT of CO ₂ e

*Greenhouse gas emissions reported to DEQ <https://www.oregon.gov/deq/aaq/programs/Pages/GHG-Emissions.aspx>

The GHG emission calculations for the Schools Program include impacts resulting from changes in consumption of natural gas and other fuels. These calculations also utilize DEQ supplied emission factors and are the result of similar methodology.

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 Portland General Electric's (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. Approximately 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. In January 2020, the program guidelines were updated to the following:

1. School districts may also complete a fleet audit and can use PPC funds to purchase or lease Zero Emission Vehicles, including buses. The PPC funds can also be used to purchase or install electric vehicle charging stations. (Senate Bill 1044 was enacted in the 2019 legislative session and updated the Program to include fleet audits, Zero Emission Vehicles, and chargers.)
2. After completing whole building energy audits or the equivalent, school districts can work with Energy Trust programs to submit energy saving measures for consideration for SB 1149 Schools Program eligibility and reimbursement.
3. School districts may still combine PPC funds and Energy Trust incentives on an eligible measure, but the combined funding is no longer capped at the SB 1149 Schools Program maximum reimbursement amount.

School districts may now use PPC funds to:

1. Complete energy audits at eligible schools by a qualified energy audit firm, or a fleet audit of the school district. These energy audits identify energy efficiency opportunities (i.e., lighting upgrades, HVAC upgrades, building envelope improvements, etc.) and fleet audits review the school district's existing fleet details;

“Oregon’s public schools are a vital part of our community, helping students learn and thrive – and the Oregon Department of Energy has been proud to serve our schools statewide for more than 40 years. We provide expertise to support energy efficiency practices and projects, which help our schools create better learning environments for the next generation of Oregonians.”

Janine Benner, ODOE Director

2. Implement eligible energy efficiency measures, purchase or lease Zero Emission Vehicles and/or install electric vehicle chargers; 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.

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 2019 through June 2021 biennium. The school district expenditures are categorized by audits, installed energy efficiency measures, commissioning costs, school district administrative expenses, ODOE administrative expenses, and ODOE program expenses. Combined school district and ODOE administrative costs represented approximately 2 percent of total program expenditures.



Several school districts completed lighting upgrades within their schools this biennium. **Grants Pass School District** was just one district to complete lighting upgrades at nine of its schools. The \$1.3 million project among the eligible schools was supported by nearly \$1 million in PPC funds and is projected to save 800,000 kilowatt hours of electricity annually.

Table 3-1: School Districts Receipt and Expenditure Summary (July 2019 - June 2021)

Transaction	PGE	Pacific Power	Total
# of School Districts receiving funds*	42	73	111
Total Fund Receipts	\$11,615,594	\$7,545,327	\$19,160,921
Expenditures			
Audits	\$278,546	\$30,270	\$308,816
Conservation Measures - Installed	\$11,199,865	\$6,044,617	\$17,244,482
Commissioning costs	\$341,402	\$52,381	\$393,783
SD Admin Expenses			
ODOE Admin Expenses**			\$378,720
ODOE Program Expenses**			\$556,837
Total Expenditures**	\$11,819,813	\$6,127,268	\$18,882,638

*The total number of school districts receiving funds is 111. There are four school districts that have schools in both PGE's and Pacific Power's service territories and therefore, the school districts receive PPC funds from both PGE and Pacific Power.

**ODOE Admin and ODOE Program expenditures are not tracked by utility, and so the amount in the total column may exceed the sum of the expenditures in the utility specific columns.

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 2019 through June 2021 biennium, the program completed 104 audits across 35 school districts. These 35 school districts represent approximately 32 percent of the total school districts that are eligible for PPC funding.

During the same time period, 54 school districts installed 375 energy efficiency measures. These measures are estimated to save 12,742,454 kWh in electricity and 587,810 therms of natural gas annually. The school districts' total savings from the installed measures are estimated to be \$1,496,018 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.



Gervais School District is a small district with three main campuses for its students. The district completed lighting upgrades and some heating system and control upgrades at each campus.

\$28,000

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.

Table 3-2: School District Audits and Energy Efficiency Measure Results (July 2019 - June 2021)

	PGE	Pacific Power	Total
Audits Completed	63	41	104
# of School Districts that Completed Audits*	17	19	35
Energy Efficiency Measures Installed	246	129	375
# of School Districts that Installed Measures*	24	31	54
Average Estimated Measure Life (years)	17.8	19.4	
Annual Savings			
Electricity Savings (kWh)	8,059,449	4,683,005	12,742,454
Natural Gas (therms)	430,033	157,777	587,810
Other Fuel (gal)**	(6,396)	(593)	(6,989)
Total Savings (Btu)	69,826,091,437	31,698,267,065	101,524,358,502
Total Annual Energy Savings (\$)	\$961,402	\$534,616	\$1,496,018
Total Annual GHG Emissions Reductions (MT CO2e)	5,606	4,064	9,670
PPC Funds on Installed Measures	\$11,199,865	\$6,044,617	\$17,244,482
School District Funds on Installed Measures	\$24,186,251	\$7,431,650	\$31,617,901
Total Cost of Installed Measures	\$35,386,116	\$13,476,266	\$48,862,383

* The number in the total column refers to the number of school districts that have completed audits and installed measures during this timeframe. One school district completed audits in both PGE's' and Pacific Power's service territories along with one school district that installed measures in both service territories, resulting in a total of 35 school districts that completed audits and 54 school districts that installed measures.

**The negative fuel savings is due to the large amount of lighting projects completed during the biennium. The lighting upgrades reduce electric usage but slightly increase heating in the areas of the lighting upgrades.

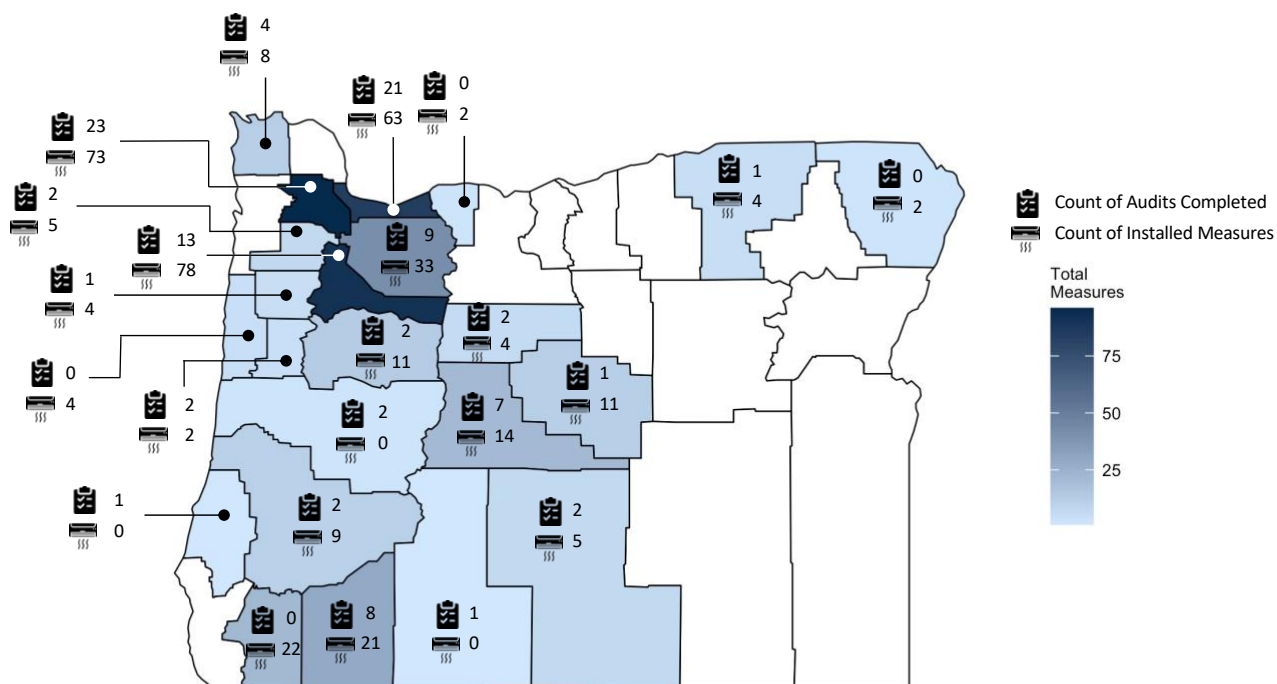
Table 3-3 summarizes the total number of energy efficiency measures installed during this biennium and previous biennia.

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

	PGE	Pacific Power	Total
Energy Efficiency Measures Installed 2019 – 2021 Biennium	246	129	375
Energy Efficiency Measures Installed 2017 – 2019 Biennium	69	54	123
Energy Efficiency Measures Installed 2015 – 2017 Biennium	100	25	125

The map below shows the PPC Schools Program completed activities for the 2019-2021 biennium by Oregon county. School districts in a total of 23 counties completed energy audits and/or installed energy efficiency measures.

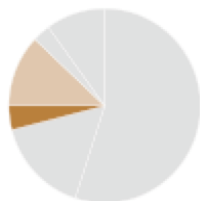
Figure 3-1: Completed Energy Audits and Installed Energy Efficiency Measures by County



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



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 public purpose charge (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 Portland General Electric’s (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-family and multifamily, 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, 2019, through June 30, 2021. Funds received by OHCS during this period amounted to \$31,047,017, and expenditures including commitments totaled \$55,456,224, with administrative expenses comprising 2.8 percent of total expenditures.

Table 4-1: OHCS Receipt and Expenditure Summary (July 2019 – June 2021)

Transaction	PGE	Pacific Power	Total
Receipts			
Low-Income Weatherization			
Administration	\$679,512	\$441,611	\$1,121,123
Evaluation, Training, and Technical Assistance	\$679,512	\$441,611	\$1,121,123
ECHO	\$10,192,683	\$6,624,160	\$16,816,843
Multi-Family Rental Housing	\$2,038,537	\$1,324,832	\$3,363,369
Total Low-Income Weatherization	\$13,590,244	\$8,832,214	\$22,422,458
Low-Income Housing			
Administration	\$261,351	\$169,877	\$431,228
Program	\$4,965,666	\$3,227,665	\$8,193,331
Total Low-Income Housing	\$5,227,017	\$3,397,542	\$8,624,559
Total Fund Receipts	\$18,817,261	\$12,229,756	\$31,047,017
Expenditures			
Design and Marketing – TRC	\$689,229	\$689,228	\$1,378,458
TRC – Committed but Unexpended	\$318,037	\$318,037	\$636,074
Low-Income Weatherization*	\$11,676,556	\$7,498,978	\$19,175,534
Committed but unexpended	\$7,658,346	\$7,130,728	\$14,789,074
Low-Income Housing**			\$10,035,554
Committed but unexpended			\$6,865,453
Administrative Expenses**			\$2,000,876
Evaluation, training, technical assistance**			\$506,411
Committed but unexpended			\$68,790
Energy Education			
Committed but unexpended			
Total Expenditures excluding Committed**	\$12,365,785	\$8,188,206	\$33,096,833
Total Expenditures including Committed**	\$20,342,168	\$15,636,971	\$55,456,224

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

** Low-Income Housing; Administrative; and Evaluation, Training, and Technical Assistance expenditures are not tracked by utility, and so the amount in the total column may exceed the sum of the expenditures in the utility-specific columns.

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 1,087 ECHO units. The completed ECHO projects helped save over 8,266,106 kWh. Across the 1,087 homes, 51 percent were completed in Multnomah and Washington counties, accounting for 52 percent of the kWh savings.



The **Red Rock Creek Commons** provides 24 units for low-income households, and 8 of the property's units are reserved for those with mental illness. PPC funds enabled increased energy efficiency and livability for residents.

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

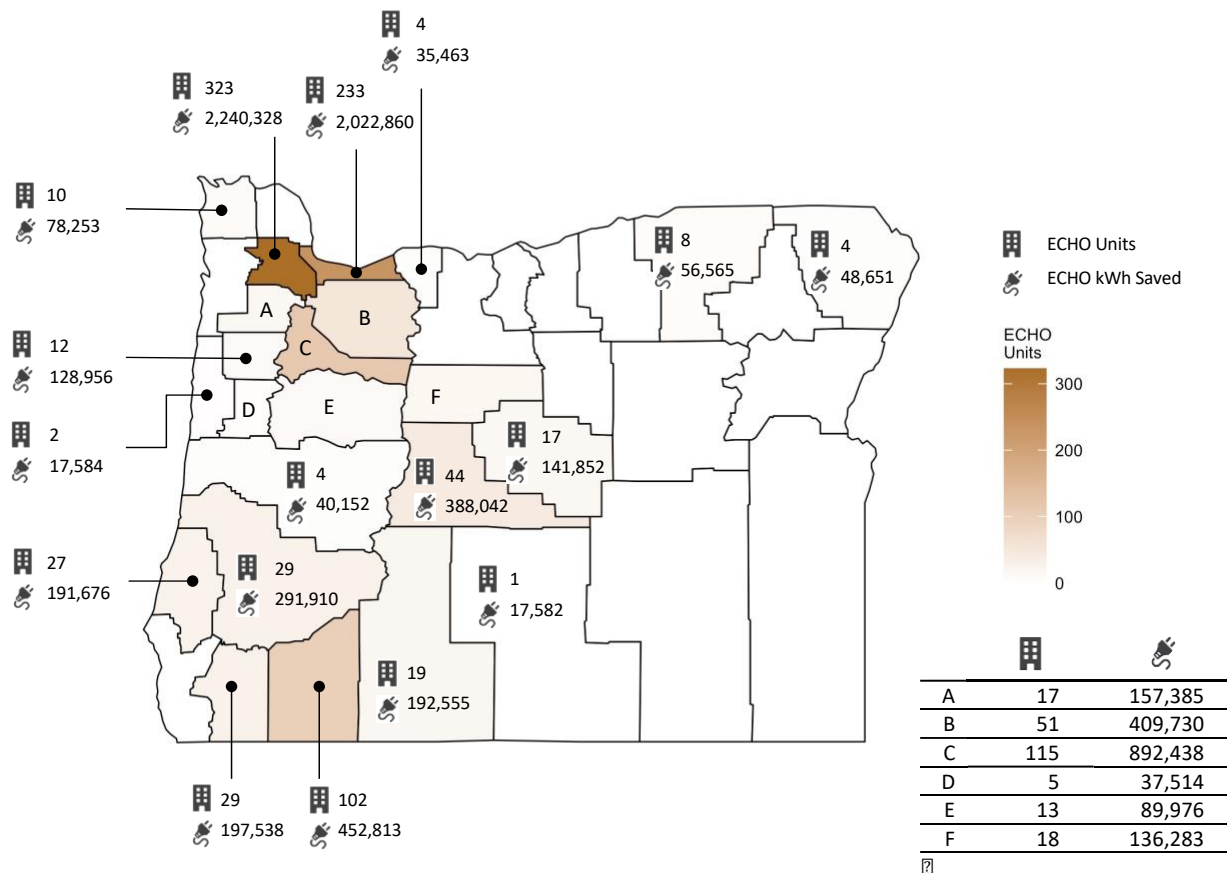


Table 4-2 shows the total energy savings and GHG emissions reductions across both PGE’s and Pacific Power’s service territories.

Table 4-2: Program Savings, Including GHG Emissions Reductions (July 2019 – June 2021)

Results	PGE	Pacific Power	Total
Annual Total Savings (kWh)	7,217,847	4,555,093	11,772,940
Annual GHG Emissions Reductions (MT CO2e)	3,017	3,142	6,159

Table 4-3 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 31 multifamily rental projects through the Low-Income Multifamily Weatherization program with a total of 2,186 homes weatherized.

“I’m going to be able to do a lot of energy efficiency work on the project, which will be a direct benefit to tenants as far as their electricity bill. So that’s really exciting any time I can drive down the amount folks are paying.

- Clayton Crowhurst, Associate Housing Developer

Table 4-3: Low-Income Weatherization Multifamily Rental Weatherization Projects

County	Number of Projects	Number of Units in County
Clackamas	2	58
Benton	2	120
Washington	3	144
Marion	3	270
Multnomah	16	1,302
Deschutes	2	165
Jefferson	1	42
Linn	1	48
Klamath	1	37
Total	31	2,186

The 31 multifamily rental Low-Income Multifamily Weatherization projects resulted in 3,506,834 kWh in annual energy savings.

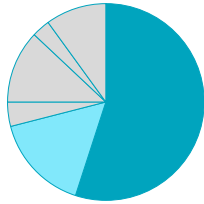
Table 4-4 summarizes the number of low-income housing projects and the number of homes by county.

Table 4-4: Low-Income Housing Projects (July 2019 - June 2021)

County	Number of Projects	Number of Units in County
Harney	1	20
Lane	1	51
Multnomah	4	376
Total	6	447

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 energy needs with some of the lowest-cost resources available and diversifies Oregon’s energy mix with generation from small-scale renewable energy systems while avoiding carbon emissions in line with the state’s emission reduction goals.

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, with particular attention paid to customers who stand to benefit the most from these services. These customers include residents 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, farmers and ranchers, nonprofits, and government agencies. Many services are delivered to customers by trade ally contractors and program allies and promoted in collaboration with community-based 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



Case Study: Salem’s Willow Lake Wastewater Treatment Plant

A biogas-fueled cogeneration system at Salem’s Willow Lake wastewater treatment plant is helping transform the city’s waste into renewable power. Energy Trust provided \$3 million in incentives to support the \$11 million project, which was designed to help power the plant and heat a nearby administrative building. In its first year, the project generated more than 8,500 megawatt hours of electricity and saved the city about \$440,000 in energy costs.

and services to the market, customers know the benefits of the investment will outweigh the costs over time. Like many energy-efficiency programs nationwide, Energy Trust uses cost-effectiveness tests 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 Senate Bill 1149 (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 renewable energy system. 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.



Case Study: Criss Family Farm

Improvements at the Criss family farm are reducing the energy, water, and labor needed to grow alfalfa and grain near Klamath Falls. The farm received \$21,000 in Energy Trust incentives for a pivot irrigation system and other upgrades that are expected to save the farm \$5,900 a year in energy costs and more than 24 million gallons of water a year.

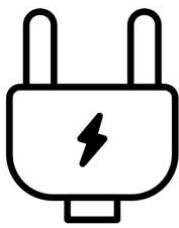
Energy Trust is a nonprofit overseen by a volunteer board of directors and the OPUC. Through a grant agreement with the OPUC, Energy Trust works to achieve annual minimum performance measures, reports quarterly and annually on progress to annual goals, tracks and reports on progress related to five-year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

This report addresses only the conservation and renewable resource public purpose funding through SB 1149. 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 Portland General Electric (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.

As noted in the Executive Summary, beginning in 2022, the PPC and funding pathway for cost-effective energy efficiency will change when House Bill 3141 goes into effect. All cost-effective energy efficiency will be accomplished through funding set in individual utility regulatory agreements and directed by the OPUC to Energy Trust. In addition, renewable resource PPC dollars will fund more technologies and will continue to be invested by Energy Trust.

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



426,824,958 kWh

Energy saved and generated in
2019 - 2021



\$432.6 million

Current and future 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.¹ Table 5-1 summarizes the total receipts and expenditures for Energy Trust during the July 2019 through June 2021 biennium. Receipts totaled \$134,781,621 while expenditures, including administrative costs (3.8% of expenditures), totaled \$130,323,559.

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.

¹ 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.

Table 5-1: Energy Trust Receipt and Expenditure Summary (July 2019 – June 2021)

Transaction	PGE	Pacific Power	Total
Receipts			
Energy Conservation	\$62,249,471	\$42,675,842	\$104,925,313
Renewable Energy	\$17,606,696	\$12,249,612	\$29,856,308
Total Fund Receipts	\$79,856,167	\$54,925,454	\$134,781,621
Expenditures			
Energy Conservation	\$57,990,813	\$42,144,672	\$100,135,486
Renewable Energy	\$12,680,115	\$12,523,505	\$25,203,620
Administrative Expenses	\$3,428,269	\$1,556,185	\$4,984,453
Total Expenditures	\$74,099,197	\$56,224,362	\$130,323,559

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, industrial, and agricultural sectors, along with the savings attributable to NEEA. Overall, Energy Trust’s PPC-funded programs accounted for 358,336,566 kWh in energy savings across both PGE's and Pacific Power's service territories.

Table 5-2: Energy Savings and Levelized Costs² by Sector and Utility, Including GHG Emissions Reductions

Sector	PGE	Pacific Power	Total	% of Total Savings	Levelized Cost (\$/kWh)
Residential (kWh)	15,043,437	17,622,449	32,665,885	9%	\$0.054
Commercial and Multifamily* (kWh)	61,819,417	38,830,673	100,650,090	28%	\$0.042
Industrial and Agricultural (kWh)	114,218,580	80,273,104	194,491,684	54%	\$0.021
NEEA (kWh)	17,401,477	13,127,430	30,528,907	9%	\$0.027
Total (kWh)	208,482,910	149,853,656	358,336,566	100%	\$0.031
Total GHG Emissions Reductions (MT CO₂e)	87,142	103,365	190,507	-	-

*To avoid double counting commercial savings, the values in this table do not include savings from projects that were co-funded with ODOE or OHCS.

Energy Trust also invested PPC funding in incentives and project development assistance for projects that will generate renewable energy using solar, hydropower, and biopower. 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; community solar projects; hydropower projects at irrigation districts; and biopower projects at water resource recovery facilities are focus areas for incentives given the abundant energy sources and multiple benefits for customers and communities. Energy Trust also offers higher incentives for income-qualified customers to make residential solar more affordable.

² 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	1	2	3	\$92,452	\$84,951	\$177,402
Hydropower	5	21	26	\$628,642	\$1,913,006	2,541,648
Geothermal and Wind	-	-	-	-	-	-
Total	6	23	29	\$721,094	\$1,997,957	\$2,719,050

Table 5-4: Solar, Biopower, Hydropower, Geothermal, and Wind Projects Generation by Program, Including Avoided GHG Emissions

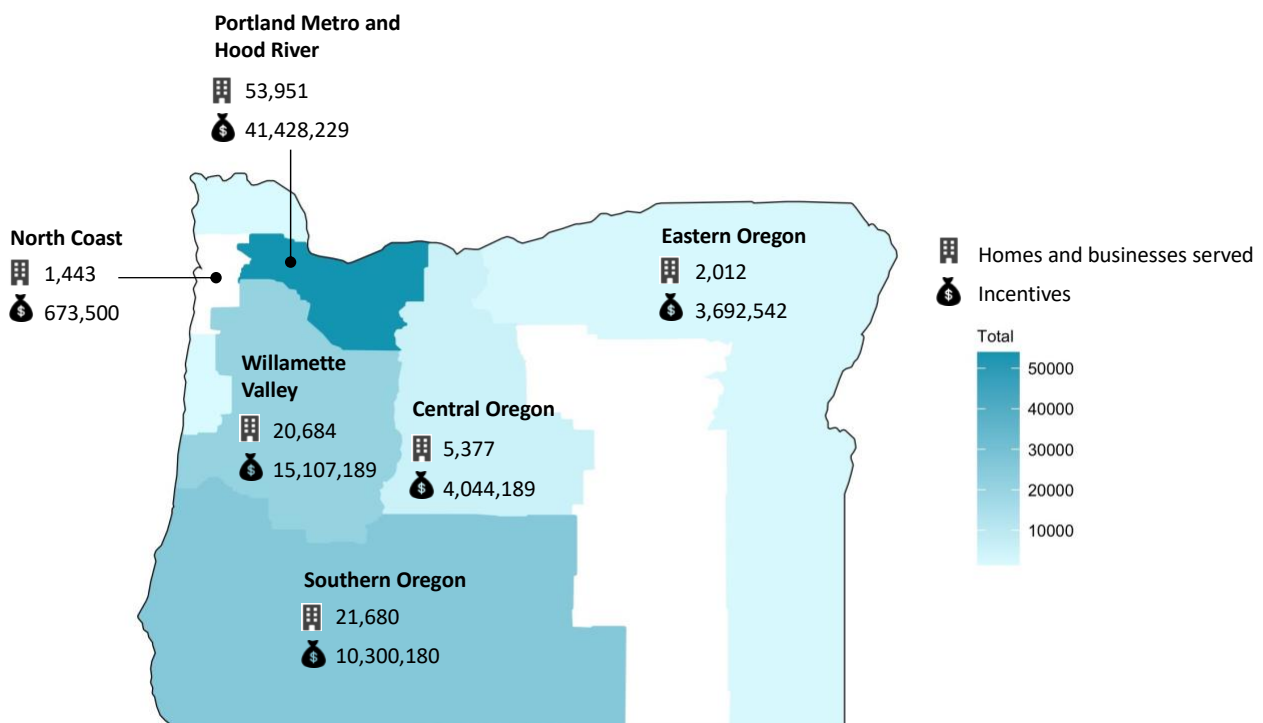
Program	PGE	Pacific Power	Total
Solar (kWh)	30,415,694	28,538,898	58,954,592
Biopower, hydropower, geothermal, wind (kWh)	8,389,800	1,144,000	9,533,800
Total (kWh)	38,805,494	29,682,898	68,488,392
Total Avoided GHG Emissions (MT CO2e)	16,220	20,474	36,694

The map below shows the total number of homes and businesses served across all electric energy efficiency and renewable energy projects by region. Fifty-one percent of the sites served were in the Portland Metro region, accounting for 55 percent of the total paid incentives. The Southern Oregon region had 21 percent of the total sites served by PPC-funded projects (14 percent of incentives), followed by Willamette Valley with 20 percent of the sites served (20 percent of incentives). However, as highlighted in Table 5-2, savings are more equally shared across the residential, commercial, and industrial and agricultural sectors due to business customers largely saving more energy per project than residential customers. Approximately 76 percent of incentives were for energy efficiency projects compared to 24 percent for renewable energy projects. Other key accomplishments include:

- **8.7 million** LED bulbs sold to or installed by residential customers
- **6,100** homes built above code and with energy performance scores
- **900** commercial new construction or major renovation projects completed
- **3,800** solar systems installed on homes and businesses

- **\$1 million** in enhanced incentives provided for low- to moderate-income customers through Savings Within Reach incentives
- **\$1.8 million** in enhanced incentives provided for low- to moderate-income customers through Solar Within Reach incentives
- **\$627,000** in enhanced incentives provided to customers through partnerships with community-based organizations
- **2,800** industrial and agricultural projects completed

Figure 5-1: Homes and Businesses Served and Total Incentives by Region^{3, 4}

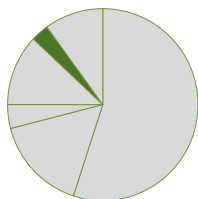


³ In 2020, Energy Trust canceled a funding agreement for a renewable energy generation facility in the Willamette Valley because the site was repurposed so that it was no longer generating electricity. As a result, the customer returned the incentive payment in 2020 as required by the terms of the funding agreement. Total Willamette Valley incentives shown in this map do not include that returned incentive.

⁴ Incentives in the Energy Trust regions do not include school projects that received ODOE funds or low-income projects that received OHCS funds. However, site counts may include some of these projects because sites may receive incentives for multiple different projects.

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 the public purpose charge (PPC) on their monthly electric bills. 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 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 47 self-directing sites, representing about 43 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, Oregon Housing and Community Services [OHCS], 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 \$24,492 and program costs of \$41,212, for a total of \$65,704, 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 2019 through June 2021, self-direct customers in Pacific Power’s service territory claimed \$616,448 in offsets to the conservation and renewable PPC obligation, and customers in Portland General Electric’s (PGE’s) service territory claimed \$3,891,655. 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 69 percent and Pacific Power self-direct sites accounting for 31 percent of the renewable PPC obligation.

Table 6-1: Self-Direct Program Receipts and Expenditures (July 1, 2019 - June 30, 2021)

Sector	PGE	Pacific Power	Total
Conservation	\$2,529,645	\$15,685	\$2,545,330
Renewable	\$1,362,010	\$600,763	\$1,962,773
Total	\$3,891,655	\$616,448	\$4,508,103

6.3 Results

Table 6-2 summarizes self-direct program conservation project certifications from July 2019 through June 2021. PGE customers certified five conservation projects with total eligible costs of \$2,585,107. Pacific Power customers did not certify any projects. The impact of these projects is 6,945,952 kWh in reduced energy consumption and \$442,893 in energy savings annually.

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

	PGE	Pacific Power	Total
Projects Certified	5	0	5
Total Eligible Cost	\$2,585,107	\$0.00	\$2,585,107
Total Energy Cost Savings (annual)	\$442,893	\$0.00	\$442,893
Total Energy Savings (annual kWh)	6,945,952	0	6,945,952
Total Avoided GHGs (annual MT CO2e)	2,903	0	2,903

Table 6-3 shows the number of conservation projects in PGE’s and Pacific Power’s service territories by each measure type along with the total costs and annual energy savings. Sixty percent of the conservation projects between July 1, 2019, and June 30, 2021, were lighting modifications, accounting for 12 percent of total eligible project costs and 21 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)
Lighting Modification	3	\$322,377	\$95,112	1,595,485
Variable Frequency Drives	2	\$2,262,730	\$347,781	5,350,467
Total	5	\$2,585,107	\$442,893	6,945,952

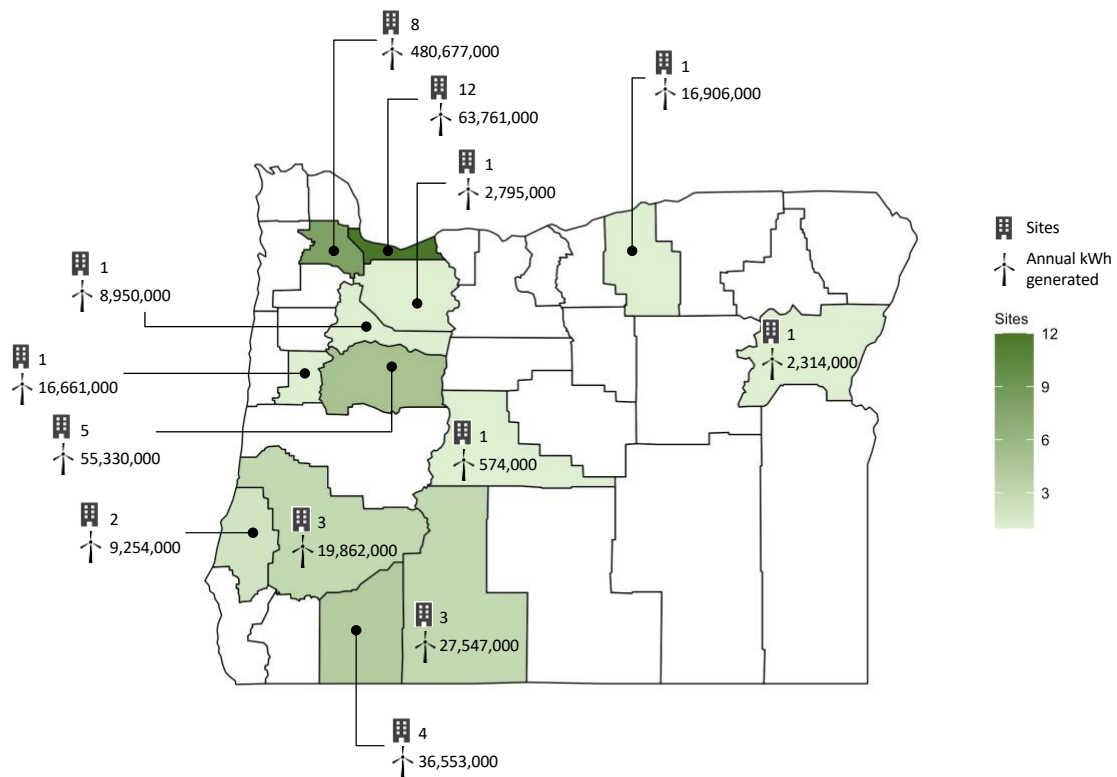
Self-directing customers can use the renewables portion of their PPC obligation to purchase Green Tags from their utility. Table 6-4 shows that 43 sites purchased Green Tag contracts between July 2019 and June 2021, worth \$2,402,883 in total credits. The average annual kWh per Green Tag contract was 15,126,204 kWh (or 15,126 Renewable Energy Certificates) and in total represented over 741 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	18	25	43
Green Tag Contracts	21	28	49
Green Tags Purchased	546,777	194,404	741,181
Total Credits Issued	\$1,640,331	\$762,552	\$2,402,883
Total Renewable Energy Generated (kWh)	546,773,997	194,409,992	741,183,989
Total Avoided GHG Emissions (MT CO₂e)	228,541	134,099	362,640

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 73 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>