

PGE Clean Fuels Program 2024 Annual Report



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Introduction

Portland General Electric Company (PGE, or the Company) is pleased to submit its 2024 Clean Fuels Program (CFP) report to the Oregon Department of Environmental Quality (DEQ) as required by OAR 340-253-0640(11)¹. This report covers PGE's programs and expenditures for the 2024 calendar year for its activities funded by the sale of Clean Fuels Program credits generated through residential electric vehicle (EV) charging in PGE's service area.²

PGE plans CFP-funded programs through an iterative approach with stakeholders in consultation with DEQ and the Oregon Public Utility Commission (OPUC) staff. This iterative approach is facilitated by OPUC staff as part of Order No. 18-376³ in Docket No. UM 1826⁴ and Order No. 22-314⁵ in docket No. UM 2165⁶. These orders established five program design principles that investor-owned utilities must follow when planning CFP-funded programs, as shown in Figure 1.

¹ Oregon Administrative Rules, Chapter 340, Division 253, retrieved from <https://secure.sos.state.or.us/oard/displayDivisionRules.action?selectedDivision=1560>.

² This report encompasses activities funded through PGE's participation in the Oregon Clean Fuels program not ratepayer funded transportation electrification activities.

³ OPUC. *Order No. 18-376: Revised Principals and Process for Utility Use of Revenue from Clean Fuels Program*, retrieved from <https://apps.puc.state.or.us/orders/2018ords/18-376.pdf>.

⁴ OPUC. *Docket No. UM 1826: Staff Investigation into Electric Utility Participation in Clean Fuel Programs*, retrieved from <https://apps.puc.state.or.us/edockets/docket.asp?DocketID=20725>.

⁵ OPUC. *Order No. 22-314: Investigation of Transportation Electrification Investment Framework*, retrieved from <https://apps.puc.state.or.us/orders/2022ords/22-314.pdf>.

⁶ OPUC. *UM 2165: Investigation of TE Investment Framework*, retrieved from <https://apps.puc.state.or.us/edockets/DocketNoLayout.asp?DocketID=22828>.



Figure 1. OPUC Clean Fuels Program Design Principles

As part of part of Order No. 22-314, starting with the 2023 CFP Program Year, the program planning process is now integrated into investor-owned utilities' Transportation Electrification (TE) Plans.⁷ PGE's plan for 2024 was included in PGE's 2023-2025 TE Plan⁸, which was accepted by the OPUC on October 20, 2023.

Starting in 2020, PGE proposed a portfolio approach to residential Clean Fuels-funded programs. PGE consulted with stakeholders to consider what types of programs to support through a portfolio approach. Based on stakeholder input, market research, and CFP participation, PGE developed a portfolio method to plan for the CFP going forward. These programs are organized in the following categories:

- **Grants and Infrastructure** to accelerate equitable deployment of vehicles and charging across Oregon
- **Education and Outreach** to increase awareness of transportation electrification, dispel existing misconceptions, and help create an ecosystem of support roles (e.g., EV/Charger maintenance job training, re-training) that promote a dependable customer experience
- **Emerging Technology** to test new concepts that have an EV nexus and the ability to scale to larger utility programs.

Additionally, administrative costs are tracked and expected to remain below ten percent of total annual expenditures. While funding amounts vary from year to year based on residential CFP revenue, PGE plans for an approximate budget breakdown by percentage spend as outlined in Table 1. These percentage targets

⁷ On August 26, 2022 the OPUC adopted Order No. 22-314, which amended Order No. 18-376 to eliminate CFP Design Principle of "Programs are designed to be independent from ratepayer support" revised the process for stakeholder review and input into PGE's CFP-funded activities within the TE Plan process.

⁸ PGE. *2023 Transportation Electrification Plan*, retrieved from <https://edocs.puc.state.or.us/efdocs/HAH/um2033hah15818.pdf>.

allow for continuity across portfolio program offerings while remaining in alignment with funding priorities set out in the TE Plan.

Table 1. CFP Program Percentage Targets

Category	% Portfolio per Year
Grants and Infrastructure	70% - 80%
Education and Outreach	5% - 15%
Emerging Technology	5% - 15%
Administrative Costs	5% - 10%

PGE’s 2024 Clean Fuels Program Forecast was included in its 2023-2025 TE Plan as shown in Table 2.

Table 2. 2024 Clean Fuels Program Forecast

Program Category	Total Cost	Portfolio Estimate %
Grants and Infrastructure	\$10,560,073	77%
Education and Outreach	\$1,371,438	10%
Emerging Technology	\$685,720	5%
Administrative Costs	\$1,097,150	8%
PORTFOLIO TOTAL	\$13,714,381	-

Chapter 1. Total Revenue from the Sale of Base and Incremental Credits

DEQ's 2021 CFP rulemaking introduced the concept of base and incremental credits. Base credits are generated through use of a fuel with carbon intensity (CI) lower than that of gasoline or diesel. Incremental credits are generated when a registered entity claims a lower carbon intensity of electricity by retiring Renewable Energy Certificates (RECs) alongside claiming CFP credits for EV charging.

2024 sales and resulting revenue

Credits sold in 2024 from the 2023 residential EV charging fund the 2025 CFP budget. In 2024 PGE purchased RECs to claim incremental credits for 2023 to fund additional dollars for 2025 programs. PGE began 2024 with 169,312 credits in its account. On April 19, 2024, the DEQ deposited 53,642 base residential credits and on May 30, 2024, DEQ deposited 74,523 residential incremental credits into PGE's account in the CFP system. On October 25, 2024, DEQ deposited 56,458 residential base credits for the count of EVs in PGE's service area for the first six months of 2024. PGE ended the year with 60,988 credits in the account. Between January 1, 2024, and December 31, 2024, PGE executed 16 separate sales of CFP credits at an average price of \$33.19 per credit, with proceeds of residential credits totaling \$5,411,142. In addition, PGE purchased \$621,030 in RECs, which resulted in \$2,550,778 in incremental credit revenue to be utilized for the 2025 program year.

2024 Program year budget and retention for 2025 program year

PGE's 2024 programs were funded through the sale of credits generated from residential EV charging in 2022. PGE did claim incremental credits in 2023 for residential CFP 2024 programs. The total revenue from the sale of base and incremental credits in 2023 to fund 2024 programs was \$17,636,189.⁹

The revenue in 2024 from selling 2023 residential EV credits fund the 2025 CFP Programs. Credit prices in 2024 decreased significantly from the credit prices in 2023. The average credit price across PGE's Clean Fuels credit transactions in 2023 was \$133.66 whereas the average credit price across PGE's Clean Fuels credit transactions in 2024 was \$33.19. As PGE saw the lower credit prices continuing into Q2 2024, a decision was made to retain approximately \$5M of the 2024 program year budget (~\$17.6M) for the 2025 program year budget in order to smooth out grant funds between 2024 and 2025 program budgets. The retention of dollars helped to avoid a drastic increase of grant funding in 2024 followed by a year of very low grant funding being available in 2025.

⁹ Note that there is a two-year delay between CFP credit generation and the programmatic year, so the 2024 program year was funded by incremental credits generated in 2022.

Chapter 2. 2024 Residential Clean Fuels Program Expenditures

Following the portfolio approach, PGE's 2024 CFP expenditures break down as shown in Table 3.

Table 3. 2024 Clean Fuels Program Expenditures

Program Category	Amount spent by close of 2024	Percentage of Overall Expenditure
Grants and Infrastructure	\$12,900,773	85.1%
Education and Outreach	\$1,218,846	8.1%
Emerging Technology	\$307,645	2.0%
Administrative costs	\$57,807	0.4%
REC costs	\$621,030	4.1%
Total	\$15,106,100	100%

Program expenditures were higher than forecasted because there was a larger amount of revenue available to fund 2024 programs and because many prior year grants closed out in 2024. Most expenditures (85%) were in grants and infrastructure, which included both the Drive Change Fund (DCF) and the Electric School Bus (ESB) Fund, as well as the public charging infrastructure upgrades. Note that due to the grant structure of the Clean Fuels program, payments for a portion of each grant awarded are reserved until the grant work is completed: PGE disburses an up-front payment for 75% of the grant award for recipients to begin their grant project and reserves the remaining 25% until completion of the grant work. \$15,106,100 reflects the Clean Fuels dollars spent in 2024 for Clean Fuels programs, 75% of 2024 grant awards, along with 25% grant closeout payments for prior year grants reaching completion.

Chapter 3. Program Descriptions and Activities

The following section provides further detail on PGE's CFP-funded programs.

3.1 Infrastructure and Grants

3.1.1 Drive Change Fund

The Drive Change Fund is a competitive grant available to non-residential customers for transportation electrification projects that prioritize underserved communities, advance transportation electrification, and benefit residential customers.¹⁰ Table 4, below, details DCF program criteria.

Table 4. Drive Change Fund Program Criteria

Applicant Eligibility	<ul style="list-style-type: none">• Applicants may be nonprofit, for-profit or government entities, with a preference for nonprofit and government• Applicants need not be PGE customers; however, projects must provide a community benefit in areas PGE serves
Grant Scope	<ul style="list-style-type: none">• Projects must advance TE and provide a benefit to residential customers, with priority given to projects that address the needs of underserved communities• Applicants should demonstrate efforts to obtain all other available funding sources, incentives, federal grants, and tax credits• Any charging stations that are funded must be part of the PGE qualified product list• Where appropriate, PGE claims Clean Fuels credits to continue to fund the DCF
Other Assistance	<ul style="list-style-type: none">• Financial assistance is offered to compensate qualifying nonprofit applicants for staff time required to prepare an application• Where possible, PGE may direct applicants to other complementary funding streams and synchronize application processes
Process	<ul style="list-style-type: none">• A third-party evaluator evaluates the applications, with an internal PGE selection committee making final funding decisions

Since 2019, the DCF has awarded over \$17.43 million in grant funding to 101 projects. PGE ran the sixth cycle of DCF in 2024, awarding \$4.76 million to 27 community transportation electrification projects. Table 5, below, provides a breakdown of the projects awarded and [Appendix A](#) details project summaries.

¹⁰ In Oregon Communities underserved by Transportation Electrification are defined in HB 2165 as residents of rental or multifamily housing, communities of color, communities experiencing lower incomes, tribal communities, rural communities, frontier communities, coastal communities, other communities adversely harmed by environmental and health hazards, communities with a low density of public charging stations and the deployment of electric school and transit buses.

Table 5. 2024 Drive Change Awardees

Organization	Org Type	Project Type	# of EVs	# of Other Vehicles	# of Ports	Approx. Final Award Amount
Arise and Shine	Nonprofit	EVs, Education and Outreach	2			\$116,024
Caldera	Nonprofit	EVs	4			\$438,980
Camp Elso Inc.	Nonprofit	EVs, Education and Outreach	3			\$395,120
City of West Linn	Government Entity	Chargers			2	\$44,325
Clackamas Service Center Inc.	Nonprofit	EVs, Education and Outreach	2			\$241,605
Community Development Corporation of Oregon	Nonprofit	EVs, Chargers	2		2	\$134,770
Community for Positive Aging	Nonprofit	EVs, Education and Outreach	3			\$185,725
Depave	Nonprofit	EVs, Education and Outreach	1			\$41,250
Foodways at Nana Cardoon	Nonprofit	EVs, Chargers	1		1	\$91,850
Forth Mobility Fund	Nonprofit	EVs		2		\$267,299
Free Geek	Nonprofit	EVs, Chargers	1		1	\$56,576
Friends of Zenger Farm	Nonprofit	EVs, Chargers	1		2	\$119,782
Home Forward	Nonprofit	Chargers			32	\$720,000
Lakewood Theater Company	Nonprofit	Chargers			6	\$61,725
Metropolitan Family Service	Nonprofit	Education & Outreach				\$126,595
NARA NW	Nonprofit	EVs, Chargers, Education and Outreach	4		4	\$324,487

Organization	Org Type	Project Type	# of EVs	# of Other Vehicles	# of Ports	Approx. Final Award Amount
NW Mothers Milk Bank	Nonprofit	EVs, Chargers	1		2	\$92,384
Oregon Environmental Council	Nonprofit	EVs, Education and Outreach	1			\$93,566
Oregon Museum of Science and Industry (OMSI)	Nonprofit	EVs, Education and Outreach	2	2		\$205,262
PDX Diaper Bank	Nonprofit	EVs		1		\$43,893
Portland State University Foundation	Nonprofit	EVs, Education and Outreach		7		\$32,943
Portland Street Art alliance	Nonprofit	EVs, Education and Outreach	1			\$115,792
Project LEDO	Nonprofit	EVs, Chargers	1		1	\$84,000
Raices de Bienestar	Nonprofit	EVs, Chargers	1		1	\$395,932
Volunteers of America Oregon	Nonprofit	EVs, Chargers	4		2	\$154,401
Westside Transportation Alliance	Nonprofit	EVs, Education and Outreach		2		\$29,918
Youth Progress	Nonprofit	EVs, Chargers	2		2	\$145,250
Totals			37	13	58	\$4,765,378

Awardees receive 75% of the grant award at the beginning of the project and up-to the remaining 25% after projects are completed (based on actual project costs). Awardees are allowed 18 months to complete their projects to provide ample time for vehicle delivery and EV charger installation where applicable. Some projects are completed in less time. The Grant Coordinator tracks awardee progress quarterly to monitor project implementation and provide support where needed. Two notable milestones from prior year projects that were completed in 2024 include the arrival of City of Salem's compact street electric sweeper and 60 E-bikes, 15 cargo bikes and 75 locks (The Street Trust).



Figure 2. Delivery of EV Bus and Charger to Prior Year (2023) DCF Awardee Family Building Blocks

PGE continues to seek feedback from stakeholders, applicants, recipients, and transportation electrification organizations on strategies to achieve OPUC's program design principles, with the goal of creating an equitable application, evaluation process, and funding deployment structure. PGE updates and refines the DCF on an annual basis, with an aim to improve the process for applicants, particularly for smaller community organizations. In 2024, PGE enlisted Opinion Dynamics to conduct an external evaluation of the grant. This evaluation focused on the 2022 cohort of DCF awardees who had competed or were nearing project completion. PGE has since implemented many of the recommended changes. Figure 3, below, presents some of the changes PGE made in 2024 based on this feedback. The full evaluation can be found in Appendix B.

Outreach and Education

- Hosted an awardee Connection and Celebration event to honor the impact of six years of the Drive Change Fund
- Awardees from all six years attended, as well as PGE staff and key stakeholders, with breakout groups for discussion and knowledge sharing

Timeline

- Aligned grant cycle based on participant feedback to reduce overall cycle time of grant, improve reporting, and improve budget transparency

Program Management

- PGE continues to monitor and report on DCF grants using the Cybergrants tool

Program Improvements

- New policy: an organization may receive a maximum of \$1 million in DCF funding over five years
- Improved internal systems to approve contracts and distribute payments to recipients to allow for faster processing time
- Standardized materials and award agreement terms

Figure 3. Incorporation of Feedback and Program Enhancements in the Drive Change Fund

3.1.2 Electric School Bus Fund

The Electric School Bus Fund is a competitive grant available to public school districts located in PGE's service area to help fund the incremental costs of purchasing electric school buses, with a focus on school districts in underserved communities. Since 2020, PGE has awarded over \$14.3 million in grant funding to school districts resulting in 55 electric school buses. In 2024, PGE allocated approximately \$6.4 million to help school districts and school bus fleet operators acquire electric buses and charging infrastructure. PGE awarded grants to eight districts to fund a total of 25 buses. These buses are in addition to the 30 now operating or on-order from prior year grant awards.

Table 6. 2024 Electric School Bus Fund Awardees

School District	Project County	# of Buses	Total amount awarded for electric school bus and charging infrastructure ¹¹
Beaverton School District	Washington	4	\$926,316
Corbett School District	Multnomah	2	\$979,016
Gresham-Barlow School District	Multnomah	3	\$742,693
Lake Oswego School District	Clackamas	4	\$1,135,832
North Marion School District	Marion	3	\$710,203
Salem-Keizer School District	Marion	2	\$567,646
Portland Public Schools	Multnomah	4	\$720,585
Willamina School District	Yamhill	3	\$710,203
Total	-	25	\$6,492,494

As of January 2025, all school districts awarded ESB funds in 2024 have placed their orders for electric school buses. The lead time for delivery of these buses ranges from 12-18 months, with most are expected in service later 2025 / early 2026. One school district was a first-time awardee in 2024: Corbett School District. For the 2024 award year, Corbett, Gresham-Barlow, Lake Oswego, North Marion, Portland Public Schools, and Willamina School districts all received funding for charging infrastructure. Beaverton and Salem-Keizer school districts did not receive additional funding for infrastructure from the 2024 ESB fund, as they had sufficient infrastructure from prior grant years or through participation in in PGE's Fleet Partner Program.¹²

3.1.3 Matching External Funds

In 2024, PGE reserved \$500,000 to provide matching funds to public agencies, community-based organizations, nonprofits, educational institutions, and other partnerships applying for external funding. Two applications were submitted and approved for matching funds, to be paid should the applicant receive external funding. Details on the funded projects are included in Table 7, below. PGE also dispersed matching grant funds to Portland Bureau of Transportation and Bonneville Environmental Foundation which were approved for matching funds in 2023. These two projects are now in progress, and we continue to monitor their progress quarterly until completion.

¹¹ Final total award amount varies based on actual vehicle and infrastructure costs.

¹² More information on PGE's Fleet Partner program can be found here: <https://portlandgeneral.com/energy-choices/electric-vehicles-charging/business-charging-fleets/fleet-partner>

Table 7. Awarded 2024 Matching Funds

Organization Name	External Grant Source	Amount Requested from PGE	Brief Description
Forth Mobility Fund	Coronavirus State Fiscal Recovery Fund (ARPA Fund)	\$100,000	Funds will support the hardware cost to replace a school bus internal combustion engine with an electric drive train
City of Tualatin, in partnership with Forth Mobility Fund	US DOT Charging and Fueling Infrastructure Grant Program	\$200,000	Funds will go towards education and community engagement, notably EV Carshare

PGE uses the following criteria to evaluate eligibility for grant matching opportunities, which are based on the principles for use of CFP funds established by Commission Order 18-376 in UM 1826:

- Will the proposed grant project support electrification of Oregon’s transportation sector?
- Will the proposed grant project benefit residential customers?
- Will the proposed grant project benefit traditionally underserved communities?
- Is the proposed grant project eligible for external funding?

PGE uses the following program parameters when deploying matching funds:

- If PGE awarded a project matching funds, but the project does not receive the external funds on which it depends, the awarded CFP funds will revert to the overall DCF funding pool
- If any matching funds remain uncommitted when annual DCF awards decisions are made, that uncommitted matching fund amount will revert to the overall grant funding pool

3.1.4 Public Charging Infrastructure

Through the Fast Charger Upgrade Project, dating back to 2020, PGE has allocated Clean Fuels funds to support upgrades to outdated or non-functioning public direct current fast chargers (DCFCs). Upgrades to outdated public charging infrastructure continued as part of the Infrastructure and Grant portfolio in 2024. Following the completion of upgrades to Oregon Electric Byways sites in 2023, PGE reallocated unspent funds toward the upgrade of its Electric Avenue DCFC chargers, in accordance with the Project’s original purpose as the sites were experiencing low uptime metrics due to performance of the hardware and network.

Six of the seven Electric Avenue charging sites were upgraded to new ChargePoint chargers and software from June through November 2024. The new chargers are capable of faster charging speeds and are more reliable, leading to increased uptime and less maintenance. Improvements at these sites include:

- Improved charging speed from 50 kW to up to 160 kW

- Improved reliability through next generation charging hardware
- Improved Americans with Disabilities Act (ADA) accessibility as some parking spaces were expanded from 9 to 10 feet in width
- Improved visibility through new charging station signage and branding wraps
- New software with additional payment methods including phone, app, RFID, and credit card tap-to-pay
- Improved overall driver experience, as demonstrated through improved uptime, increased use, and customer feedback.¹³

Electric Avenue consists of seven sites: World Trade Center (WTC) in downtown Portland, Beaverton, Eastport, Hillsboro, Milwaukie, Wilsonville, and Salem. Most sites have four DCFCs and one dual-port Level 2 (L2) charger, with the exception of Salem Electric Avenue, which has two DCFC chargers and a dual-port L2 charger. The Electric Avenue fast charging network started in 2015 with the downtown Portland charging site, funded through shareholder dollars. The expansion of the pilot to six additional sites was submitted in UM1811 and approved in UM1938 in 2019.

Table 8. Status of PGE CFP-funded Upgrades for Electric Avenue

Electric Avenue Site	Location	Charging Capacity	New Chargers Online
Beaverton	11850 SW Canyon Road Beaverton, Oregon 97005	Four ChargePoint DCFC chargers can supply 160kW to one vehicle or 80kW to two vehicles One ChargePoint- 6.2kW L2 with two ports	August 2024
Eastport	4012 SE 82nd Avenue Portland, OR 97266	Four ChargePoint DCFC chargers can supply 160kW to one vehicle or 80kW to two vehicles One ChargePoint- 6.2kW L2 with two ports	September 2024
Hillsboro	2567 SE Tualatin Valley Highway Hillsboro, OR 97123	Four ChargePoint DCFC chargers can supply 160kW to one vehicle or 80kW to two vehicles One ChargePoint 7.2kW L2 with two ports	July 2024

¹³ The last Electric Avenue site undergoing upgrades was completed and online in November 2024 and charger uptime is around 95% up from 76% uptime prior to the charger upgrades. The upgrades helped improve charging speed at all sites which coupled with the improved uptime has shown a 455% increase in usage in December 2024 when compared to June 2024.

Electric Avenue Site	Location	Charging Capacity	New Chargers Online
Milwaukie	10880 SE McLoughlin Boulevard Milwaukie, Oregon 97222	Four ChargePoint DCFC chargers can supply 160kW to one vehicle or 80kW to two vehicles One ChargePoint 7.2kW L2 with two ports	November 2024
Salem	1040 State Street Salem, Oregon 97301	Two ChargePoint DCFC chargers 62.5kW (supports CCS & CHAdeMO) One ChargePoint 6.2kW L2 with two ports	August 2024
Wilsonville	8200 SW Wilsonville Rd Wilsonville, Oregon 97070	Four ChargePoint DCFC chargers can supply 160kW to one vehicle or 80kW to two vehicles One ChargePoint- 6.2kW L2 with two ports	November 2024

3.2 Outreach and Education

Outreach and education activities are intended to support customers in their transition to transportation electrification by increasing awareness and building confidence in electric vehicles.

3.2.1 Underserved Community Engagement

In 2024, PGE concluded the first year and began the second year of a long-term (three-year) Underserved Community Engagement Process to engage members of underserved communities. PGE contracted with a minority-owned firm (Thuy Tu Consulting) to lead the work, including recruitment for and implementation of both working groups and focus groups, with the following goals:

- To better understand the perceptions, attitudes, and needs of underserved communities in relation to transportation electrification
- Integrate learnings into the design, implementation, and improvement of TE programs
- To build and strengthen relationships between PGE and underserved communities

The timing of the engagement does not align with the calendar year in which the outreach work was performed, meaning the first year of engagement occurred over two calendar years, as did the second year of engagement. This report will detail activities as a result of learnings from year 1 and those through its

contracted facilitator in year 2. PGE reported on the first year of engagement in the Clean Fuels Program 2023 Annual Report.¹⁴

Following the conclusion of Year 1 engagement activities in early 2024, Thuy Tu Consulting provided a report detailing the key learnings and recommendations for TE programs based on input from participants. The final report is provided in Appendix C. PGE used these recommendations, along with data from other customer surveys, to inform several programmatic improvements and will continue building upon in 2025:

Table 9. Programmatic Improvements based on Underserved Community Engagement (Year 1)

Area of Focus	Goal	Implemented Improvement
Education and Outreach Improvements	Increase awareness of EVs through more accessible media types	A series of educational videos was created that explain EV and charging basics, available in four languages. These are available on YouTube and will be included in digital campaigns in 2025.
Education and Outreach Improvements	Help address concerns about long-distance travel in an EV	Photo and video content were created that demonstrate EV capabilities for long trips. These assets have been incorporated into printed and digital collateral to be used at events in 2025.
Education and Outreach Improvements	Increase access to EV education	PGE's ride and drive program in 2024 was planned to include coordination with community events
Education and Outreach Improvements	Increase access to information about the costs associated with EV adoption	Marketing efforts increased around PGE's Costs and Savings Calculator, also available in Spanish.
Municipal Charging Program	Improve visibility and safety	Streetlights were installed at PGE's neighborhood pole charging locations
Municipal Charging Program	Raise awareness of these charging locations	Marketing efforts increased in nearby communities using techniques such as personalized email communications and door hangers.

Additionally, the TE team met with partners from across the company to share these learnings.

In Year 2, the facilitator convened a working group of individuals from underserved communities in PGE's service territory. PGE and its vendor also planned to host several in-person focus groups to capture additional feedback. PGE convened five separate focus groups comprised of individuals from one of the five counties which serve the majority of PGE's rural customers. Each focus group met twice, with the first session taking

¹⁴ PGE (2024). *PGE 2023 Transportation Electrification Annual Report: Appendix B. PGE Clean Fuels Program 2023 Annual Report*. Retrieved from <https://edocs.puc.state.or.us/efdocs/HAQ/um2033haq328284024.pdf>.

place in-person and the second taking place online. One of the focus groups was made up of Spanish-speaking participants and, thus, was conducted entirely in Spanish. The first of the 14 planned working and focus group sessions took place in October 2024. To maximize accessibility for participants across our service area, all sessions subsequent to the first five focus group sessions were held over video conference through May 2025 (the second year of engagement).

Looking ahead, PGE will continue to leverage the Year 2 learnings to inform future engagement strategies as well as its portfolio of TE programs. Table 10, below, provides the dates and subject matter for the meetings held to date.

Table 10. Summary of Working Groups and Focus Groups in Year 2 of Underserved Community Engagement

Topic		Participants
<i>Working Groups</i>		
Group 1: October 7, 2024	TE and Community Engagement Overview	11
Group 2: December 9, 2024	Public Charging and Education Campaigns	6
Group 3: February 6, 2025	EV Costs and Savings Calculator and Public Charge Card Concept	9
Group 4: March 12, 2025	Micromobility	9
<i>Focus Groups</i>		
Group 1: October 21, 2024	Community Transitions to TE and Mapping Exercise	11
Group 2: October 23, 2024	Community Transitions to TE and Mapping Exercise	11
Group 3: October 24, 2024	Community Transitions to TE and Mapping Exercise	13
Group 4: October 26, 2024	Community Transitions to TE and Mapping Exercise	3
Group 5: October 28, 2024	Community Transitions to TE and Mapping Exercise	15
Group 6: March 4, 2025	EV Costs and Savings Calculator	11
Group 7: March 11, 2025	EV Costs and Savings Calculator	8
Group 8: March 18, 2025	EV Costs and Savings Calculator	9
Group 9: March 25, 2025	EV Costs and Savings Calculator	11
Group 10: March 27, 2025	EV Costs and Savings Calculator	8

3.2.2 Oregon' Electric

In 2024, PGE and design partner For Good & Co. continued to host the redesigned Oregon' Electric Statewide Campaign website.¹⁵ This work included update of website content including EV incentives and rebates included in the Inflation Reduction Act, Oregon's Clean Vehicle Rebate, Utility EV Rebates, and EV benefits. PGE and Pacific Power also collaborated to inform campaign activities to take place in 2024. The Oregon' website gathered 18,197,970 impressions across Meta sites and Google ads which generated 166,602 clicks to the website resulting in over 99,931 impressions.

While the campaign resulted in a high number of website views, overall, those who came to the website only engaged on the site for an average of 43 seconds. Due to this and other negative performance metrics, PGE aims to develop an exit strategy for the Oregon' Electric website in 2025. PGE will engage with external stakeholders, such as the Oregon Department of Transportation, Oregon Department of Energy, and DEQ to explore alternatives for EV education and outreach in the market.

3.2.3 Electric Vehicle Costs and Savings Calculator

In 2022, PGE launched the EV Costs and Savings Calculator on the Company's website. This tool was continuously updated and promoted in 2024.¹⁶ The calculator uses data from PGE's electricity rates and available state and federal financial incentives to help inform a customer on what owning an EV could look like for their budget and charging accessibility. This interactive tool has a comprehensive, updated inventory of currently available electric vehicles as well as applicable financial incentives. The search page allows users to filter for their vehicle needs including vehicle type, minimum range, and price. Users can also filter settings based on their vehicle usage, including average miles driven, years of ownership, eligibility for financial incentives, and charging strategy. Users can then see estimated net savings, fuel savings, and greenhouse gas emissions reduced.

The tool also includes EV specifications, cost by category, home charging options, EV dealerships, and a public charging map. In 2024, there were a total of 49,527 visitors to the site, with 71% being new users. PGE utilized a portion of its education and outreach budget to educate customers on the calculator. This educational effort was a key factor in the results that were produced. Following the 2023 translation of the tool into Spanish, a portion of this education campaign was dedicated to targeting Spanish speaking individuals. Overall, the Spanish display ads accounted for 1,981,357 impressions and over 6,000 clicks. This was the first time PGE included Spanish speaking individuals in the education strategy, and plan to include more targeted engagement in Search and Social campaigns in 2025. Our evaluations have shown that once people are aware of the savings, incentives, and benefits of electric transportation, they are significantly more likely to consider purchasing an EV.¹⁷ An ongoing survey shows that 80% of folks who visit the cost and savings calculator plan to buy an EV. Our current cost & savings vendor has informed PGE that they will no longer be able to support the site after May 2025. PGE will select a new vendor to provide an EV residential total cost of ownership resource that meets or exceeds the current site's capabilities.

¹⁵ <https://oregoinelectric.com/>

¹⁶ <https://portlandgeneral.com/energy-choices/electric-vehicles-charging/ready-to-buy-an-ev/electric-vehicle-costs-and-savings-calculator>

¹⁷ Opinion Dynamics, Evaluation of PGE's Transportation Electrification Pilots, 2023

Electric Vehicle Costs & Savings Calculator

Interested in how electric cars compare to gas?
You're close to the perfect place to start exploring the wide range of electric vehicles available, the rebates and incentives offered and even your EV charging options as you add up how much you could save by going electric. Learn more

Search for an EV below

☒ Filter by vehicle features

Choose your vehicle type

All

Enter your maximum price

Select a maximum price

☒ More search filters

Electric vehicle type

BEV or PHEV

Electric range (miles)

Select a value...

Minimum number of seats


Select a value...

☐ Filter by keyword(s)

Reset Filters


Your results

Select an EV below to see your savings




Nissan LEAF
MSRP \$27,800
MSRP (after federal & state rebates) \$17,800
Electric range 212 miles

Select this EV



Chevrolet Bolt EV
MSRP \$31,500
MSRP (after federal & state rebates) \$21,500
Electric range 259 miles

Select this EV



Chevrolet Bolt EUV
MSRP \$33,500
MSRP (after federal & state rebates) \$23,500
Electric range 259 miles

Select this EV

Figure 4. PGE EV Costs and Savings Calculator

3.2.4 Ride and Drives

In 2024, PGE contracted with Reach Strategies to host six “Ride and Drive” events reaching over 2,000 attendees. PGE also hosted a table at two OMSI Community Science Nights to provide information about EV’s and charging. PGE used feedback from customers at these events to inform subsequent updates to education and outreach materials. A summary of the Ride and Drive Events follows:

Table 10. 2024 Ride and Drive Events

Ride and Drive Event	Attendees	EV Experiences	Additional Information
Milwaukie Environmental	107	149	<ul style="list-style-type: none"> Local dealers provided nine vehicles for a total of 105 test drives

Ride and Drive Event	Attendees	EV Experiences	Additional Information
Stewards Group (MESG) Sustainability Fair September 7, 2024			<ul style="list-style-type: none"> At least one vehicle was leased immediately following the event
Electrify Portland Hosted at The Redd September 15, 2024	108	178	<ul style="list-style-type: none"> Participants took 108 test drives in the 10 different EV makes and models available at the event A wide range of electric bikes from River City Bicycles and Nomad Cycles were available to test ride One hundred percent of participants rated their test drive experience as good/excellent
Portland Community College Sylvania September 28, 2024	229	367	<ul style="list-style-type: none"> On Saturday, participants took 229 test drives in the 12 available EV models Almost all (95%) of participants rated their test drive experience good/excellent
Portland Community College Sylvania September 29, 2024	166	319	<ul style="list-style-type: none"> On Sunday, participants took 166 test drives in the 11 available EVs available PGE received a media placement from KGW News promoting the EV Ride & Drive event
Bush's Pasture Park (Salem) October 12, 2024	127	202	<ul style="list-style-type: none"> Twelve different makes and models were available at the event, and participants took 127 test drives Two-thirds (66%) of participants were first-time EV drivers
Sunset Transit Center EV Ride & Drive Portland, OR October 13, 2024	103	188	<ul style="list-style-type: none"> 89% percent of attendees noted they were more likely to purchase an EV as their next vehicle Roughly half (51%) of participants were first-time EV drivers

PGE's coordination of the above Ride and Drive events differed from prior years. The new strategy focused on outreach to first time EV drivers or individuals who did not know a lot about EVs. The ride and drive team also collaborated with PGE's Community Impact Team and Key Customer Managers to tap into local events and organizations and drive organic foot traffic. Over sixty percent of the resulting attendees were first-time EV drivers; they reported an over ninety percent satisfaction rate. In addition to the opportunity to test drive EVs, attendees were able to ask questions of EV owners and PGE subject matter experts about topics such as charging at home or on-the-go. Most events also featured micromobility or family-friendly games and attractions. Attendees also received post-event surveys asking whether they purchased an EV, were still in

process of purchasing an EV, or if they encountered barriers to purchase. The post-event survey reported that seventy-two percent of attendees are more likely to purchase an EV post test drive, and while sixty percent of attendees had an improved overall opinion of EVs, fifty one percent still find charging on long distance trips as the biggest barrier to EV adoption.



Figure 5. Photos from 2024 Ride and Drive Events

3.2.5 Other Outreach and Education Activities

In addition to the above outreach and education activities, PGE also implemented additional strategies to increase awareness of transportation electrification, dispel existing misconceptions and build confidence for Oregonians in their electric journey. The following initiatives were informed by the input of customers through evaluation of PGE's Transportation Electrification Pilot Programs and/or through our work in Long-term Underserved Community Engagement.¹⁸

- **Oregon International Auto Show Sponsorship.** With a presence at the 2024 Auto Show, PGE was able to expand its outreach beyond its planned ride and drive events described above. With a primary focus on general EV education and EV charging at home, including charger installation, PGE was able to provide the public with a range of information on EVs. The Auto Show also featured an electric ride and drive component.
- **An animated educational video.** The goal of this video was to provide an inclusive, animated character that taught the viewer the benefits of EV fuel savings and maintenance, EV charging, and the difference in electric vehicles like PHEV and BEV. This animated video is also available in Vietnamese, Russian and Spanish, allowing a broad viewer audience, on YouTube. PGE will run a digital campaign using these video clips in 2025.

¹⁸ See Section 3.2.1 for detail.

- **A photo shoot to address “range anxiety”.** Many individuals who are new to EVs often express their “range anxiety” or fear that they cannot travel long distances in an EV. PGE invested in a photo shoot focusing on long distance travel in the State and featuring photos from the Columbia Gorge. The assets from the photo shoot have been incorporated into PGE printed and digital collateral used at its events to provide education about EVs, charging, and PGE’s programs.
- **Increased access to community-based EV events.** PGE allocated Clean Fuels dollars for community organizations to host their own EV informational events for customers to learn about electric transportation from peers in their communities.

3.3 Emerging technology

3.3.1 Vehicle-to-Grid Demonstration

In 2024, PGE partnered with Nuvve (an energy management software provider specializing in vehicle-to-grid (V2G) technology, and First Student (a school bus operator). The goal of this activity was two-fold: understand the viability of V2G technology as a grid resource during peak times; and determine the value proposition to school districts as they plan for the electrification of their school bus fleets. The project used one Blue Bird bus with a 155 kWh battery and a 60 kW Nuvve BorgWarner DC charger located in Sherwood, Oregon.

In the summer of 2024, PGE called 27 discharge events under multiple conditions to test the bus and charger’s ability to discharge to the grid. PGE measured the charging/discharging power at the charger and the meter to determine the net load reduction and other grid benefits. PGE also tracked other learnings throughout the project to inform future program design. Due to scheduling constraints, no discharge events were conducted during school days.

The main objective was to demonstrate that the bus could reliably discharge to the grid during peak events without negatively impacting school bus operations and provide the data and justification to scale this technology into an incentivized customer program. However, this objective was not achieved, as technical issues prevented the bus from consistently discharging, with only 70% of events reflecting any battery discharge. Notably, most of those events had problems starting on-time or managing on-peak charging, leading to an overall success rate of only 22%. Despite this, the demonstration provided valuable learnings, including:

1. School buses have high availability to participate in events during non-school days in the summer, behaving similarly to stationary energy storage
2. The quality of the integration between the specific bus and charger platforms has a large impact on the reliability of V2G participation
3. Automated processes across event notifications, discharge scheduling, and event operations could reduce issues due to human error and improve reliability and scalability

During the demonstration, PGE called different types of discharge events to understand the difference between calling for maximum discharge rate versus a constant rate held for a longer amount of time. Those discharge events which were successful helped PGE to quantify the large load reduction potential of V2G school buses over several event durations, as illustrated in the following table.

Table 11. Results from Successful Discharge Events

Event Duration	< 2 hrs	2 - 2.5 hrs	2.5 - 3 hrs	4 hrs
Average Discharge Rate*	53.5 kW	40.4 kW	29.3 kW	20.1 kW

*For events with successful discharge and a starting state of charge (SOC) above 90%

This project demonstrated the power of collaboration in advancing V2G technology, with key learnings shared across partners. The results from this demonstration proved promising for delivering grid and customer benefits but technology and reliability challenges encountered require further testing before proposing a pilot which has the capability to scale to a future program.

Looking ahead, PGE will implement additional small-scale demonstrations to understand the viability of V2G technology and inform potential pilot design. PGE and its partners see value and potential for V2G technology to provide grid benefits, but more testing is needed before proposing a scalable solution that brings value to both PGE and its customers.

3.3.2 Other Emerging Technology activities

Micromobility Market Study

In 2024, PGE commissioned a micromobility market study to explore the potential role the Company could play to support electric micromobility in its service area. Micromobility is understood to include electric bicycles (e-bikes), electric scooters, and other light personal electric vehicles (PEVs). The study was conducted by Kittleson and Associates. The report that resulted provided background and recommendations to support PGE's consideration of how micromobility could contribute to transportation electrification efforts within the utility role of equitably planning for, serving, and managing increased TE loads. The following list outlines the recommendations which PGE will implement based on input from internal stakeholders, current funding, staffing, and the regulatory environment. Also included is an associated timeline for implementation of the recommended activity. The Study report is included as Appendix D.

Table 12. Micromobility Study Recommended Activities

Activity	Timeline for Implementation
1. Include opportunities for feedback and engagement around micromobility leading up to 2026-2028 TE Plan	2024-2025
2. Incorporate information and experiences about micromobility into planned education and outreach events	2024+
3. Emphasize eligibility of micromobility projects for Drive Change Fund grants	2025+
4. Target 10% of Drive Change Fund projects to be awarded for projects that include micromobility components	2025+
5. Explore opportunities to cultivate an approved micromobility product list to be included on PGE marketplace	2026+
6. Create and leverage additional educational materials about safety with micromobility devices	2025

Activity	Timeline for Implementation
7. Support external partners in efforts to increase access to shared micromobility and exploration of device storage and charging solutions in the public right of way	2025+

Commercial Managed Charging Study

In 2023, PGE hired Black & Veatch to conduct a study on potential managed charging strategies for the Fleet, Multifamily, Public, and Workplace segments commercial customer segments. The goal of this study was to help identify technology solutions and program designs which could provide meaningful grid benefits and be scaled up to a customer program. The study completed in 2024 and was partially paid for using CFP funds to study segments beyond Fleet. The study included three tasks:

- Task 1: Market Study and Utility Benchmarking
- Task 2: Managed Charging Strategy Analysis
- Task 3: Recommendations and Roadmap

The study found that managed commercial charging technology and programs are less mature than in the residential segment, with few comparable utility pilots from which to gather learnings. Analysis showed high load reduction potential as EV adoption increases, especially with medium/heavy duty vehicles, but it is unclear which program designs and/or rate designs will be most effective in each commercial segment. Based on these results and on recommendations from Black & Veatch, PGE developed a roadmap of small-scale demonstrations which will provide quick learnings on technology, program design options, grid impacts, and customer impacts to inform any “at scale” program activity. PGE began planning several such demonstrations in 2024: the first two demonstrations (which are *not* funded by CFP) focus on fleet customers, while a third demonstration (which *is* funded by CFP funds) focuses on multifamily customers with dedicated charging.

Multifamily Managed Charging Demonstration

As the Multifamily market and its associated EV load continue to grow, it will become increasingly important for PGE to manage that load as currently done in the residential segment, so that it does not pose undue risk to grid stability, particularly during times of peak demand. To that end, PGE developed a managed charging demonstration for multifamily customers in 2024 to launch in 2025. This demonstration will utilize telematics-controlled charging in coordination with WeaveGrid, PGE’s telematics vendor for the residential managed charging pilot program. The multifamily demonstration will enroll 30 to 40 residents who have both reserved parking and dedicated charging (i.e., the charger only serves their parking space, and they can leave their EV plugged in all night). Managed charging controls will match those in the existing residential managed charging pilot but will be used to evaluate scenarios specific to multifamily segment. The demonstration will run over a six-month period, with a concluding report to document findings and lessons learned. Depending on the demonstrated viability, PGE may pursue the solution at scale either as a new pilot program or as part of the existing residential pilot. At pilot scale and larger, the Multifamily offering has the potential to provide valuable peak load reduction and other grid benefits which reduce PGE’s cost to operate the grid.

Chapter 4. Conclusion

In 2024, PGE's portfolio approach to Clean Fuels-funded programs continued to provide a consistent means by which to support residential customers' benefit of electric transportation through Grants and Infrastructure, Outreach and Education, and Emerging Technology activities. PGE is pleased to have successfully executed new rounds of the Drive Change Fund and Electric School Bus grants, six ride and drive events, the continuation of the underserved working groups, micromobility studies and a valuable V2G demonstration. The company looks forward to continuing its CFP work in collaboration with DEQ, stakeholders, and other utilities to support electric transportation in Oregon.

Appendix A. 2024 Drive Change Fund Grant Recipients (as of November 2024)

Arise and Shine

Arise and Shine is a nonprofit that assists underserved communities with careers, family nurturing services, housing, and more. Their DCF project includes two electric vehicles that will transport community members around the city - many of whom are elderly, disabled, or single mothers. The EVs will help serve various programs designed for low-income BIPOC community members with everyday needs around school, childcare, and healthcare.

Caldera

Caldera is a nonprofit founded as an arts and environmental immersion program in the mountains. Their DCF project is for the acquisition of four electric transit vans along with four charging ports that will replace the current transportation vehicles in their fleet, which are 10-20 years old. The vehicles and chargers will help Caldera to transport underserved learners from inner city areas to rural land for immersive education.

Camp Elso Inc

Camp Elso Inc is a community-based environmental education focused nonprofit that uses the natural world to connect children from underserved communities to Science, Technology, Engineering, Arts, and Mathematics (STEAM). Their DCF project is for three electric vans along with educational funds that will be used to enrich their STEAMED program for nearly 500 BIPOC youth in the Portland metro region annually. These vans will help Camp Elso transport their students to and from their outdoor education programs without relying on rental vehicles, along with transporting their staff and partners around the Portland metro region.

Community for Positive Aging

Community for Positive Aging is a nonprofit organization whose mission is to foster a healthier, more inclusive, and connected Portland for adults 55+ through educational and recreational programming, support services, and care. Their DCF project includes three electric vehicles that will be used to provide means of access to locations where low-income seniors and people with disabilities can meet their medical, nutritional, and support service needs. The project will also support seniors with transportation to meals, health services and community events, addressing food insecurity and social isolation.

City of West Linn

The City of West Linn's DCF project is a Level 2 dual port charging station. Their DCF project addresses the need to accessible EV charging, especially for commuters on the I-205 corridor, along with encouraging more widespread adoption of electric vehicles. Placed in West Linn's key economic center, it will support local businesses, and enhances accessibility to eco-friendly transportation, along with addressing a major infrastructure gap.

Clackamas Service Center

Clackamas Service Center is the largest food pantry based in Clackamas County, serving as a vital resource for low- and no-income east Portlanders. Their DCF project is two refrigerated electric cargo vans that will replace their current gas and diesel vans that transport ingredients and other resources to food pantries and events. The vans will reduce the environmental impact of their services, reduce operating costs, and create opportunities for their staff, volunteers, and members to become familiar with and utilize EVs.

Community Development Corporation of Oregon

Community Development Corporation of Oregon is a nonprofit that works to provide pathways for Oregon's low- and no-income communities to learn, earn, and belong. Their DCF project is for two EVs that will be used to deliver in-person support for high-risk individuals in the form of food, medical care, and business education. The EVs will enhance their ability to provide comprehensive support services like housing, healthcare, and job assistance for immigrant and refugee communities.

Depave

Depave is a nonprofit that empowers underserved communities through urban de-greening. Their DCF project is for one electric truck that will be used to replace their 22-year-old gas truck. It will be used to transport tools and landscaping materials to sites and site visits by their staff. This truck will support Depave's focus on pavement-plagued settings, and their work is often completed at schools and community hubs that serve BIPOC, immigrant, and other underserved communities.

Foodways at Nana Cardoon

Foodways at Nana Cardoon is an educational nonprofit that serves the local community by gathering and sharing food knowledge and experiences. Their DCF project includes a new electric van and charger that will be used to deliver essential food items to enhance accessibility to nutritious food and alleviate food insecurity. The van will reduce carbon emissions, and lower operating costs along with boosting efficiency. It will empower underserved community members with knowledge about sustainable food systems and healthy eating habits.

Forth Mobility Fund

The Forth Mobility Fund is a nonprofit that aims to electrify transportation. They bolster policy capacity through partnerships while promoting transportation. Their DCF project includes two electrified farm vehicles that will be used in a program that lends farmers e-farming equipment to test out on their farms. The data from the electric farm equipment will be collected and analyzed against traditional farm equipment to affect local, state, and national policy around the e-farming industry.

Free Geek

Free Geek is a nonprofit whose goal is to divert technology that would otherwise be disposed of, and instead refurbish it and give it back to its community at little to no cost. Their DCF project features an electric van that will be used to transport their Digital Equity team members and materials to various programs, classes, and other events. This will allow Free Geek to continue to execute their mission to prevent electronic waste and provide access to basic technology for underserved communities.

Friends of Zenger Farm



Friends of Zenger Farm is a working urban farm that models, promotes, and educates about sustainable food systems, environmental stewardship, and community development. Their DCF project will have one electric truck along with two Level 2 charging stations to support farm operations and their programs. They will also provide public access to one of the charging stations in Southeast Portland, helping an unmet need in the area.

Home Forward

Home Forward is a nonprofit housing authority that contracts with the federal government to administer housing programs. Their DCF project is the installation of 16 dual port EV chargers in low- and no- income housing sites throughout Portland and Gresham, providing EV charger access to those communities. They also plan to engage residents and the broader community on the benefits of EVs.

Lakewood Theatre Company

The Lakewood Theatre Company is a nonprofit with the goal of sponsoring and coordinating visual arts, theatre, and community events. Their DCF project focuses on the installation of three public Level 2 dual port charging stations that will provide charging infrastructure to an area that has limited public access to EV charging.

Metropolitan Family Service

Metropolitan Family Service is a nonprofit organization whose early learning, K-12, and adult education programs address disparities, promote equity, and demonstrate respect for all individuals. Their DCF project will fund the hiring of a bilingual program coordinator, with the goal helping low-income BIPOC communities attain favorable below-market loans for EVs and e-bikes through the MFS program, along with education and outreach related to electric vehicles in both English and Spanish. Information offered in multiple languages can empower individuals to make well-informed decisions toward EV ownership.

NARA NW

The mission of NARA NW is to provide culturally appropriate education, physical and mental health services, and substance abuse treatment to American Indians, Alaska Natives, and anyone in need. Their DCF project includes two Level 2 EV chargers, along with four electric passenger vans that will be used to safely transport clients to its service locations and enhance EV awareness through their educational and outreach campaigns.

Northwest Mother's Milk Bank

Northwest Mothers Milk Bank is a nonprofit donor milk bank established in 2008 whose mission is to improve the health and survival of the Pacific Northwest's most vulnerable infants through the safe collection and distribution of human donor milk, education, advocacy, and research. Their DCF project is for installing one Level 2 EV charger and an electric truck with a lift gate. This truck will allow the nonprofit to double their delivery capabilities and meet increased demand while providing a major benefit for medically fragile infants and their families. They often serve BIPOC communities and are participants of a program that help incarcerated women get milk for their babies.

Oregon Museum of Science and Industry



OMSI's mission is to inspire curiosity through engaging science learning experiences, foster experimentation and the exchange of ideas and stimulate informed action through their museum exhibits and programs. Their DCF project is for four EVs and transportation electrification education and outreach for their staff and visitors. The EVs will be used for campus safety, facilities management, exhibit assembly, and transport for visitors with mobility impairments. Their programming will be tailored for BIPOC groups underserved by STEM via partnership with Forth.

Oregon Environmental Council

The Oregon Environmental Council is a statewide environmental policy nonprofit that pushes for solutions to Oregon's environmental problems. Their DCF project is for the acquisition of one EV, which will be used for staff support, along with funds for education and outreach. This project will provide education to lower-income households and communities of color about state and federal incentives for electrification.

PDX Diaper Bank

PDX Diaper Bank provides diapers and diapering supplies to low-income families with young children, older adults, and adults with disabilities in Portland and other surrounding areas in collaboration with their partner agencies. Their DCF project is for one electric forklift that will be used in its warehouse operations. This will allow PDX Diaper Bank to increase their diaper distributions to families and accept more shipments of donated diapers.

Portland Street Art Alliance

Portland Street Art Alliance (PSAA) is a nonprofit that has managed over 300 street art projects. They also serve as a network of artists, academics, and professionals working to facilitate art projects in the city. Their DCF project is funding an education and outreach campaign, along with a new electric truck. The truck will support PSAA's operations and serve as a mobile access point for mural sites lacking nearby electricity, while the education and outreach campaign will offer artist services at two Portland charging sites to promote EV awareness. The DCF project will allow the PSAA to better engage its artists, many of whom represent BIPOC, LGBTQIS2+, homeless, and at-risk teens.

Project LEDO

Project LEDO is a nonprofit that focuses on providing access to STEM programs for children from low-income and BIPOC communities. Their DCF project is for one EV, along with one charging station. This project will allow Project LEDO to transport their staff and materials throughout the Portland metro area to support their LEGO Robotics program and STEM workshops, while reducing logistical and operational costs arising from staff using their personal vehicles. This project will serve over 400 students, many of whom are BIPOC.

Portland State University Foundation

The Portland State University Foundation is a nonprofit that raises and manages philanthropic gifts in support of the mission and priorities of Portland State University. Their DCF project includes six electric cargo bikes that will be used by their Transportation Research and Education Center (TREC) to promote their Mobile Learning Laboratory to re-engage with students and the community face-to-face. This engagement will allow the general community to see and feel TREC's research at various community and PSU events, along with promoting the benefits of e-bikes.



Raices de Bienestar

Raices de Bienestar is a nonprofit passionate about improving the emotional health and wellbeing of Latinx communities through community engagement practices and creating safe healing spaces. Their DCF project is for one electric van, along with a charging station. This project will give Raices de Bienestar an electric mobile health and outreach vehicle, giving the nonprofit the ability to deliver culturally responsible mental health services and community programs to Latino people.

Volunteers of America Oregon

Volunteers of America Oregon (VoA Oregon) is an affiliate of the larger Volunteers of America nonprofit, specializing in family safety, substance use, behavioral health, and reentry from the criminal justice system. VoA Oregon's DCF project provides four EVs, along with two Level 2 chargers. These resources will support their services including justice-involved youth in their Community Monitoring Program and enhancing engagement efforts for men undergoing substance use treatment at their Men's Residential Treatment Center.

Westside Transportation Alliance

Westside Transportation Alliance (WTA) is a nonprofit that works with their member organizations to offer workplace services and programs that encourage their employees to commute to work by transit, carpool, vanpool, bicycling, teleworking, and walking. Their DCF project includes two e-bikes along with a cargo trailer for hauling. WTA plans to use these items to support their programming and eliminate the need for personal or rental vehicles, reducing their environmental impact, and engaging their community by promoting the benefits of e-bikes at various community and employer events.

Youth Progress

Youth Progress is a nonprofit that serves young people in the juvenile justice and foster care systems, providing them with safe and stable housing along with opportunities to grow, learn, and succeed. Youth Progress' DCF project is for one EV, along with two charging ports. The EV and charger will replace the nonprofit's current gas-powered van used to transport the youth to their activities. The DCF project will continue to support Youth Progress in their mission to support BIPOC children with access to education, therapy, medical, housing, and other services.

Appendix B Drive Change Fund Evaluation

See PDF Attachment B; Drive Change Fund Evaluation

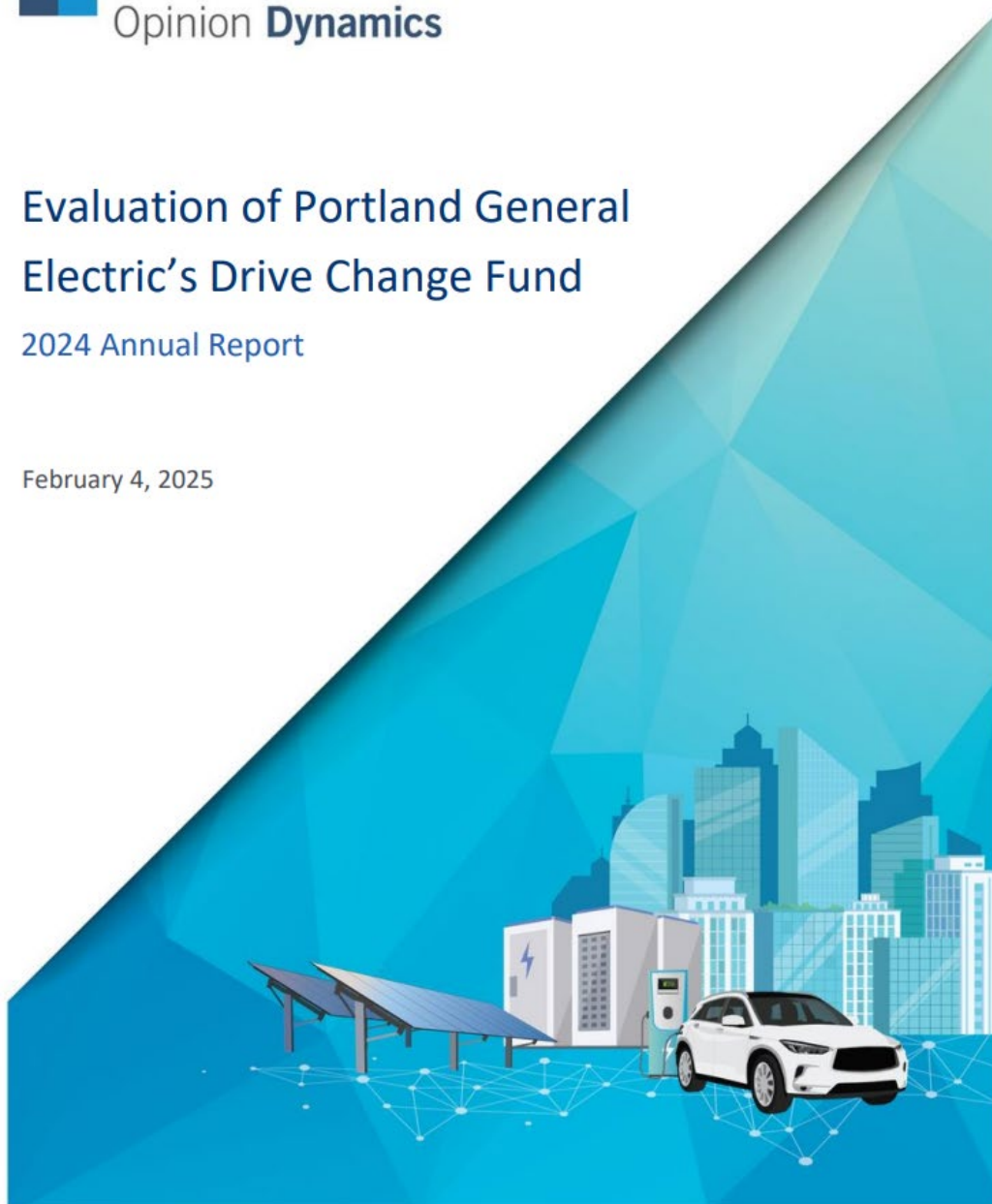


Opinion **Dynamics**

Evaluation of Portland General Electric's Drive Change Fund

2024 Annual Report

February 4, 2025



Appendix C Year 1 Report PGE TE Engagement

See PDF Attachment C; Year 1 Report PGE TE Engagement



Transportation Electrification Underserved Community Engagement Process Year 1 Report

Prepared on behalf of Portland General Electric

by Thuy Tu Consulting

with support from PKS International, Projectivity LLC, and Stamberger Outreach Consulting

MAY 2024



Appendix D Micromobility Market Study

See PDF Attachment D; Micromobility Market Study Report



**PGE MICROMOBILITY
MARKET STUDY AND
RECOMMENDATIONS FOR
UTILITY ACTIONS**

Portland, OR

August 5, 2024

