2026 to 2028

Transportation Electrification Plan

Distribution System Workshop

Transportation Electrification (TE)

Transportation Electrification Workshop | May 15, 2025

Speakers:

Elyssia Lawrence, Sr. Manager Transportation Electrification
Stefanie Reiter, Manager Product Development Transportation Electrification
Kelly Yearick, Clean Fuels Portfolio Specialist Transportation Electrification

Meeting Logistics


Audio


Microphone


Chat box


Video


Raise Hand


Closed Caption

Operating Agreements

Establishing norms with our communities is foundational to building trust

To create a **safe space**, we established **common agreements** such as **respect, honoring diversity of thought**, and **inclusivity**

Practice curiosity and **seek to understand different perspectives**

Stay Engaged

Be Willing To Experience Discomfort

Speak Your Truth Respectfully

Expect and Accept Non-closure

Share the Airtime

The courageous conversations framework
by Glenn Singleton and Curtis Linton

Agenda

10:00 - Welcome & Meeting Logistics

10:05 - INFORM | TE Overview & Current State

10:25 - FEEDBACK | 2026-2028 TE Customer Programs

- New Programs for 2026-2028
- Programs with Incremental Adjustments
- Programs with Small Adjustments

12:25 - Budget Comparison of Current & Proposed TE Plan

12:35 – Next Steps & Adjourn

INFORM: TE STRATEGY & VISION

ELYSSIA LAWRENCE

SR MANAGER TRANSPORTATION ELECTRIFICATION AND STORAGE SOLUTIONS

Transportation Electrification Strategy & Vision

Vision: PGE envisions a clean energy future where all customers equitably access charging for their electric transportation, enabled by well-planned rates, grid investments and charging management

Utility Infrastructure Role

Provide the necessary service infrastructure to safely and reliably deliver transportation electrification

PLAN

Coordination and Partnership

Leverage available funding and external partnerships to achieve resilient, clean energy charging options

Planning

Update forecasting capability to provide more granular insight into load, location, and impact by feeder and customer type

SERVE

Coordinate Load Siting

Work with customers to plan, coordinate, and site larger loads (e.g., medium-to-heavy duty and fleets) at feeders and substations with headroom

Meet the Needs of Underserved Communities

Deploy dedicated funding to support adoption and equitable access in underserved communities

MANAGE

Structure TE Rates/Tariff

Evaluate effectiveness of current time variable rates that incent charging behavior supportive of grid health

Manage TE Load

Assure smart and managed charging. Furthers PGE's flex load investment, operationalizes within Virtual Power Plan (VPP)

INFORM: CURRENT EV MARKET & FUTURE TRENDS

ELYSSIA LAWRENCE, SR. MANAGER TRANSPORTATION ELECTRIFICATION

STEFANIE REITER, MANAGER PRODUCT DEVELOPMENT TRANSPORTATION ELECTRIFICATION

Transportation Electrification Workshop - 05/15/2025

EV Market and Policy Landscape Update

Trends in Oregon	July 2024 – OR surpassed 100k EVs ODOT expanding charging infrastructure OR targets include 250,000 ZEVs by 2025 – not on track to meet target OR Clean Vehicle rebate program - $99M distributed as of Nov 2024
California trends	2 million ZEVs sold, achieving goal Sales plateaued in 2024 Utilities and charging vendors are continuing infrastructure investment Incentives for MHD EVs, increased funding for equity projects
Fed and State policy impacts	Threats to EV Purchase Tax Credits – included in program planning Federal challenges to EV adoption targets and timeframes for Clean Cars II and Clean Trucks Partial freeze on federal NEVI funding Tariffs and ongoing uncertainty may disrupt EV market (supply chain impacting manufacturers)
EV forecast incorporates market and policy considerations	EV adoption forecasts have been right-sized based on market trends & current growth rate In TE plan, PGE will include the EV adoption forecasts along with low and high reference cases based on larger or smaller policy changes and relating impacts

EV Market and Policy Landscape Influences to TE plan

Considering the changing EV market, policy landscape and macroeconomic conditions, changes were made to existing programs, and new demonstrations are being proposed in alignment with PGE's role to plan, serve and manage this evolving market:

Market and policy influences within the 2026-2028 TE plan:	PGE incorporated slower growth in 2026-2028 EV forecasts for planning purposes and for program enrollments
	Increased 2026-2028 rebate levels for underserved community charging
	Ensured future grant programs were funded to levels supporting both vehicles and chargers, with additional funding for chargers and infrastructure supporting V2G
	New programs proposed to learn from investments in the grid capacity for planning purposes and resiliency
	Contingency plans being developed in case program changes don't result in forecasted adoption or infrastructure installations; contingency plans will be included in draft TE plan filing

Proposed Transportation Electrification Portfolio

Infrastructure

- **Make-ready programs**
  - Multi-family (rebates for make-ready and chargers)
  - Business-Workplace/Public (plus partial rebate for chargers)
  - Heavy Duty Charging
  - Fleet Charging
- **Grid planning and resiliency**
  - Portfolio support for data modeling
  - Strategic Grid Investments
  - Resiliency Charging Hub Demonstration

Managed Charging

- Residential Smart Charging Pilot
- Commercial Managed Charging Demonstrations
- Vehicle to Grid demonstrations

Future Rates/Tariffs

- Portfolio Enablement
- Make-ready programs leading to LEA and rate/tariff design
- Clean Fuels Emerging Technology to try out new technology leading to rate design
- Public charging rates alignment with market and energy costs

Holistic TE Plan for Transparency

Create holistic plan of PGE's strategy and business case for both PGE and customer transportation electrification investments

- PGE's prior TE plans focused on PGE's strategy, vision and supporting programs to advance customers' transition to electric vehicles
- Due to policy considerations for PGE's own fleet electrification, the PUC stated that investments should be included in the next TE plan with rigorous analysis
- Including PGE Fleet into the TE plan led to 7/1/25 extension filing for 2026-2028 TE draft plan filing

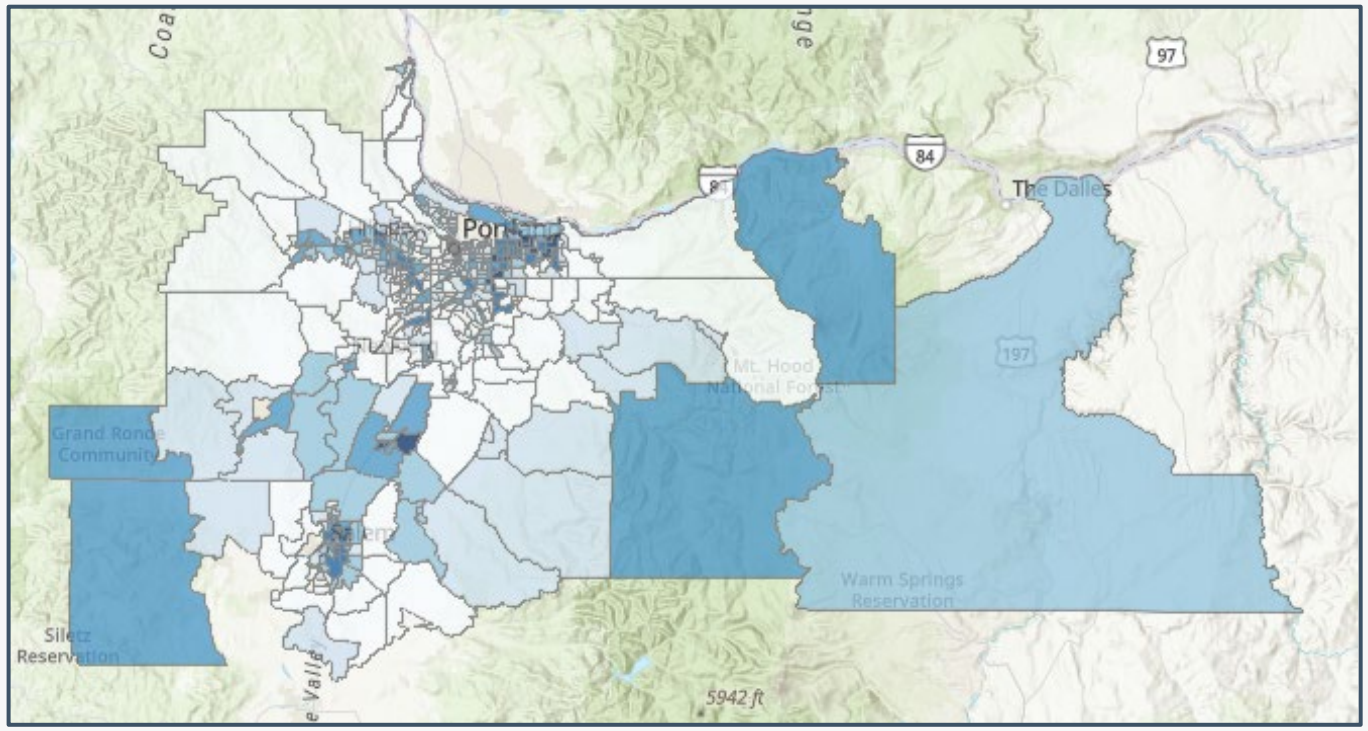
Underserved Communities

HB 2165 Requirements and Definition

- HB 2165* requires that half the Monthly Meter Charge support transportation electrification in the following underserved communities:
  - Residents of rental or multi-family housing
  - Communities of color
  - Communities experiencing lower incomes
  - Tribal, rural, frontier, and coastal communities
  - Other communities harmed by environmental and health hazards
- With a focus on:
  - Communities with a low density of public charging stations
  - Electric school and transit buses to benefit those communities

*https://olis.oregonlegislature.gov/liz/2021R1/Downloads/MeasureDocument/HB2165/Enrolled

Underserved Community Engagement



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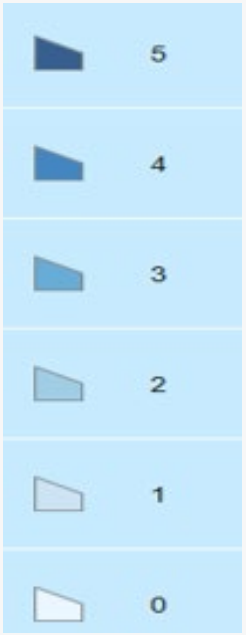


Multiple Underserved Categories

Lower Underserved Categories

In 2022, PGE did a rapid (3-6 months) needs assessment on underserved communities

Based on input, PGE began a three-year long-term engagement with underserved communities to integrate underserved communities' needs into the implementation and future planning of TE programs

PGE has sought specific feedback on several existing and conceptual TE program designs as well as input on educational and outreach strategies which can benefit and increase the reach of all TE programs

In the 2026-2028 TEP, PGE will share a plan to continue these engagements long-term, including opportunities to build on other ongoing engagement efforts within the Company

FEEDBACK: 2026-2028 TE CUSTOMER PROGRAMS

Elyssia Lawrence, Sr. Manager Transportation Electrification

Stefanie Reiter, Manager Product Development Transportation Electrification

Kelly Yearick, Clean Fuels Portfolio Specialist Transportation Electrification

Funding Mechanisms

Transportation Electrification programs and infrastructure measures have multiple fundings mechanisms to maximize the ability to support customers' transition to EVs

Monthly Meter Charge (MMC)

A legislatively required charge included in customer rates to support transportation electrification (0.25% of total revenues)

Clean Fuels Program (CFP)

Funds from a DEQ program that PGE administers for our residential customers

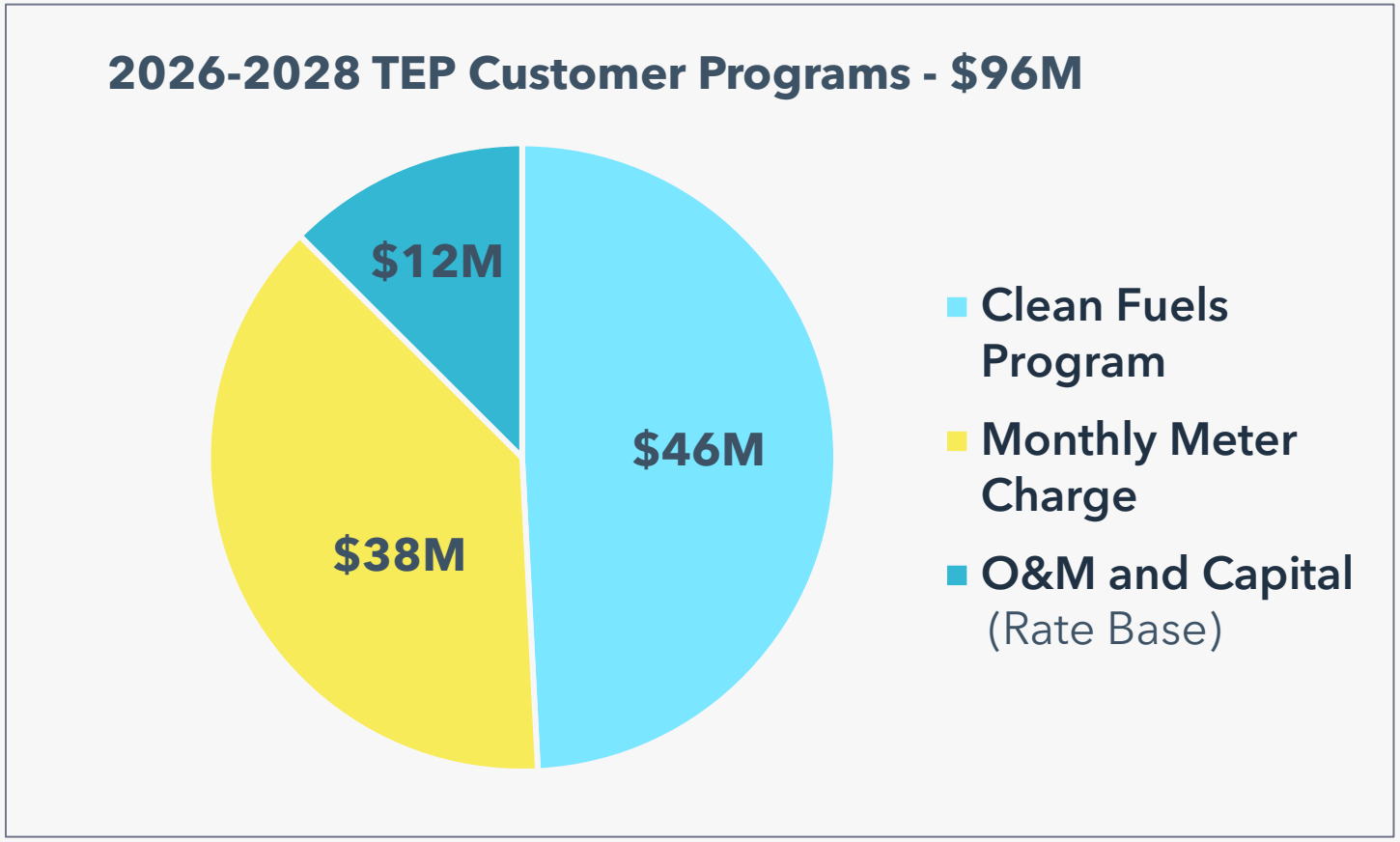
Not included in customer rates

Rate Base (O&M and Capital)

Rate base funds for portfolio support, on-going maintenance, or to build infrastructure

Transportation Electrification | Funding

Our investments **utilize existing funding where possible** to minimize ratepayer investment



Overview of Program Portfolio and Strategic Alignment

14,876 total ports, over 59% forecasted port counts to benefit underserved communities

Program Changes	Program	Port Count	Funding Sources	Plan	Serve	Manage
Few Adjustments	Fleet Partner	310	Rates	✓	✓	
	Heavy Duty Charging	15	Rates and MMC	✓	✓	
	Muni Pole Charging	180	MMC		✓	
	Portfolio Support	N/A	Rates and MMC	✓	✓	
	Public Charging (Electric Avenue)	49	Rates and Clean Fuels		✓	
Incremental adjustments	Municipal Curbside - sunsetting	N/A	N/A			
	Clean Fuels Program	N/A	Clean Fuels	✓	✓	✓
	Business EV Charging Rebates	727	MMC		✓	
	Residential Smart Charging	12,495	MMC & Rates			✓
New Program	Commercial Demonstrations	1,100	MMC			✓
	Strategic Grid Investments	TBD	MMC	✓	✓	
	Community Charging Resiliency	TBD	MMC	✓	✓	✓

2023-2025 TE Customer Sunset Programs

Sunset programs from 2023-2025 TE Plan

EV Affordable Housing Grants

- Outreach led to zero applicants
- Program completely sunset in 2024
- MMC budget repurposed for L2 Business EV Rebates (multi-family, workplace and public charging)

Municipal Curbside

- No business case for 3rd parties to charge Sch 50, received zero viable RFP responses
- Proposing to shift MMC dollars for DCFC in underserved communities & L2 Business EV Rebates

Business Multifamily and Make-Ready

- Little program uptake unless customer had additional grant funding; property owners unable to bear any additional costs
- Shift to customer-owned make-ready & construction management to provide flexibility in design

Municipal Curbside Funding Shift

Municipal Curbside Summary

- **Goal**: Enhance equitable and affordable access to electric vehicle charging infrastructure in underserved communities by collaborating with third-party public charging companies to install Level 2 curbside chargers in public right-of-way
- **Budget:** $8M funded by Monthly Meter Charge* (MMC) in **2023-2025** TE Plan

2023 -24

- Curbside RFP – no OEMs able to charge Sch 50 to end-user
- Concerns over stranded assets due to low utilization
- Recommendation to pause Curbside and redeploy dollars differently to support underserved communities (Business EV Rebates)

2025

Business EV Rebates program Feb 2025

- Fully subscribed with no additional rebates available; waitlist: 17 customers (179 ports, $250K)
- Supports public, workplace, and multi-family charging
- 84% of budget spent on underserved community ports through 2024
- Plan to shift $1M from Curbside funding to Business EV Rebates in 2025

2026+

- Curbside program is sunset; support for underserved charging shifts to Business EV rebates
- $7M of the $8M will be redirected to expand Business EV Rebates for additional L2, DCFC, and Installation Rebates in underserved communities

*An amount from each retail electricity consumer served through the distribution system owned and operated by the electric company. Outside of customer rates and legislated by HB 2165.

Municipal Curbside Funding Shift

The **Municipal Curbside program** has been paused, & funds are being shifted due to:

- Third-party participation unable to meet Sch 50
- Concerns over asset utilization and potential stranded assets

In contrast, the **Business EV Rebate program** is:

- Fully subscribed
- Growing waitlist
- 84% of rebates supporting underserved charging
- High demand in the multifamily & public charging sectors

PGE plans to file a memo recommending repurposing $1M of Curbside funds to meet underserved charging needs in **2025**

Feedback:

1. **Do you agree with enhancing equitable access to charging in underserved communities by repurposing $1M of the $8M funding to Business EV Rebates in 2025?**

2. **Do you agree with enhancing equitable access to charging in underserved communities by repurposing the remaining $7M of the $8M funding to Business EV Rebates expansion in 2025?**

Scale: 1= Strongly disagree
5= Strongly agree

Commercial Managed Charging Demonstrations

Program Description:

PGE is planning to scope and launch Commercial EV charging demonstrations to address the current state of largely unmanaged commercial EV loads.

- The commercial managed charging market is still emerging, with very limited active programs or pilots amongst utilities.
- Demos are needed to test technologies & strategies to gather learnings

Goals:

- To transform unmanaged EV loads into flexible grid assets
- To inform future Managed Charging programs that can be integrated with the Virtual Power Plant (VPP)

Commercial Managed Charging Demonstrations

	2023-2025 - Historical		2026-2028 TE Plan
Status	Complete commercial managed charging market study & benchmarking; launch fleet TOU consulting demonstration	**Strategy for 2026-2028**	Manage Commercial EV load to help customers self-manage or automate to increase flexible load to Virtual Power Plant
Budget (Funding)	**$0.7M (MMC)***	**Budget (Funding)**	**~$3M (MMC)**
Key Learnings 2023-2024	• Market study indicates that demonstrations should expand to include 6+ use cases across technologies and customer segments	**Key Changes or Objectives 2026-2028**	• Launch new demonstrations across customer segments (Fleet, Workplace, Multifamily); Enroll 20-30 commercial sites and test 3-5 vendors
	• Customers have appetites for both self-managed approaches (Passive) and automated approaches (Active)		• Test multiple technologies, vendors, and load optimization approaches to transform existing & future PGE program ports into flexible load assets
	• Vendor/utility benchmarking shows there are few utility pilots for managing Commercial EVs		• Results will inform development of Managed Charging pilot program(s) for each customer segment
Number of Ports	158 commercial ports (110 L2, 18 DC) enrolled in the 2025 demos	**Number of Ports**	Among program-enabled ports, up to 1,100 commercial ports and 15 MW of nameplate capacity could be enrolled in these demonstrations

*MMC budget related to managed charging in 2023-2025 Fleet Partner funds

Commercial Managed Charging Demonstrations

The program will scale up significantly, from 158 ports in 2023–2025 to potentially 1,100 ports and 15 MW of capacity by 2028, testing multiple vendors and load management technologies.

This expansion is based on strong customer interest in both passive (self-managed) and active (automated) charging strategies, with results set to inform future pilot designs by segment (e.g., fleet, workplace, multifamily).

Feedback:

1. **Do you agree with expanding Commercial demonstrations as a focus area in 2026-2028?**
   Scale: 1= Strongly disagree
   5= Strongly agree

2. Open Comment:
"What changes or improvements would you suggest for this program?"

Strategic Grid Investments (SGI) Demonstration

PGE to demonstrate the following:

- Utilize new datasets to invest in grid upgrades to support transportation electrification
- Focus on constrained capacity feeders with high and continued interest from TE customers (fleets & public charging networks)
- Track actual TE load enabled by grid upgrades

Learning Goals:

- Evaluate effectiveness of proactive grid upgrades in enabling TE load
- Better understand the types of EV loads and interconnection timing when capacity is known to be available in future
- Determine if demonstration can inform future grid planning needs for EV charging

Strategic Grid Investments

	2023-2025 - Historical		2026-2028 TE Plan
Status	N/A	**Strategy for 2026-2028**	• Strategic grid investments furthers PGE's long-term strategy to plan and serve high power TE load in constrained areas • Utilize outcomes to determine if learnings can be incorporated into future grid planning for EV's
Budget	N/A	**Budget (Type)**	**~$3M (MMC)**
Key Learnings 2023-2024	N/A	**Key Objectives 2026-2028**	• Select areas with little or no grid capacity today and high-interest from TE customers. • Conduct targeted outreach to surrounding fleet customers and public charging companies interested in building light-duty and MHD public fast charging. • Complete construction of 2-4 distribution upgrade projects. • Confirm ability to utilize new data sources for distribution grid planning for EV's
Number of Ports	N/A	**Number of Ports**	N/A

Strategic Grid Investments

PGE will proactively invest ~$3M to upgrade grid capacity in constrained areas with high transportation electrification (TE) interest, using new data sources and targeting 2–4 upgrade projects.

The demonstration aims to evaluate how early grid upgrades can unlock EV charging potential and inform long-term distribution planning for TE needs.

Feedback:

1. **Do you agree with expanding Strategic Grid Investments as a focus area in 2026-2028?**
   Scale: 1= Strongly disagree
   5= Strongly agree

2. **Open Comment:**
   "What changes or improvements would you suggest for this program?"

Resilient Charging Hub Demonstration

PGE to demonstrate Community Charging Resiliency

- Support clean energy infrastructure with EV charging, solar, and batteries in proximity to high-risk and underserved communities

Program details:

- Clean energy infrastructure initiative
- Integrates solar generation, battery energy storage, and multi-level EV charging
- Targeted for high fire-threat areas affected by Public Safety Power Shutoffs (PSPS) which are usually located in underserved communities

Goals:

- Enhance community resilience and grid reliability
- Support decarbonization and transportation electrification
- Integrate distributed energy resources (DER)

Scope:

- Provide uninterrupted access to EV charging during power outages or disruptions
- Enable load management capabilities
- Prioritize high risk communities
- Offer grid support and peak load reduction benefits

Resilient Charging Hub Demonstration

	2023-2025 - Historical		2026-2028 TE Plan
Status	N/A	**Strategy for 2026-2028**	Test newer use case to serve and manage TE load near high-risk fire zones through resilient charging hubs which integrate EV charging, solar panels, and battery installations
Budget	N/A	**Budget (Funding)**	~**$2.0 M (MMC)**
Key Learnings 2023-2024	N/A	**Key Objectives 2026-2028**	Integrate solar power, battery energy storage to provide backup charging options during energy disruptions as well as provide renewable energy to charging and the grid during non-disruption days
			Mitigate the effects of Public Safety Power Shutoffs (PSPS) & other grid outages, while enhancing service reliability, especially during emergencies
			Participate in demand response, load shaping & VPP programs during non-emergency days; test & validate performance of technology solution
			Determine if able to reduce outage impacts or offset traditional infrastructure spending in smaller charging installations
Number of Ports	N/A	**Number of Ports**	TBD

Resilient Charging Hub Demonstration

This new $2M initiative will deploy charging hubs with solar, storage, and EV charging in high-risk fire zones—aimed at increasing resilience during Public Safety Power Shutoffs (PSPS) and other outages.

The program supports underserved communities by ensuring uninterrupted charging access, enabling load management, and testing whether small-scale infrastructure can offset traditional grid investments.

Feedback:

1. **Do you agree with adding Resilient Charging Hub Demonstration as a new TE customer program to enhance community charging resilience and grid reliability in high-risk and underserved communities in 2026-2028?**
   Scale: 1= Strongly disagree
   5= Strongly agree

2. Open Comment:
"What changes or improvements would you suggest for this program?"

Business EV Charging Rebates

Program Description:

PGE's program assists non-residential customers in offsetting the costs of installing qualified L2 EVSE. The rebates are given to workplace, fleets, and multifamily properties that keep the equipment operational for 10 years and share session data with PGE. The program's rebate reservation system offers cost certainty, enabling organizations and individuals who might otherwise find charging installation financially challenging to participate.

Goals:

- Maintain equitable access to charging in underserved communities, currently achieving 84% of total ports
- Subsidize the cost difference between networked and non-networked chargers
- Provide up to 100% coverage for EVSE and installation expenses in underserved areas
- Continuously assess session data, pricing structures, and market trends for commercial charging

Rebate	Rebate Amount
Workplace & Fleet Level 2 Charger Rebate	Up to $2,000 per port
Multifamily Level 2 Charger Rebate	Up to $3,500 per port
Level 2 Installation Rebate	Up to $22,000 per port
DCFC Charger Rebate	Up to $55,000 per port

Business EV Charging Rebates

	2023-2025 - Historical		2026-2028 TE Plan
Status	On Track	**Strategy for 2026-2028**	Serve non-residential customers by expanding program; merging Business & Multifamily Makeready program with Business EV Rebates
Budget (Funding)	**$6.3M (MMC)**	**Budget (Funding)**	**~$14M (MMC)**
Key Learnings 2023-2024	• High demand for program has seen need for expansion • Note that DCFC and installation rebates were budgeted for one year only & all incentives were set to sunset in 2024	**Key Changes or Objectives 2023-2024**	• Budget increased to meet ongoing rebate demand • DCFC and installation rebates extended from 1 year to 3 years time availability
	• 84% of ports were in underserved communities		• Prioritizing underserved communities with Installation & Public DCFC rebates exclusively for these areas
	• Reservations have proven to be effective for MF property owners to install charging		• Maintaining optional pre-approval/reservation system for funding security
Number of Ports	**2-year forecast: 500 ports**	**Number of Ports**	**3-year forecast: 727 ports**

Questions for Major Changes on TE Customer Programs

Program	2023-2025 Budget	2026-2028 Budget	Change Summary	2023-2025 Ports	2026-2028 Ports Forecast
Business EV Charging Rebates	$6.3M (MMC)	$14M (MMC)	Budget expanded to meet demand and support underserved areas	500 ports	727 (682 L2, 45 DCFC)

Feedback:

Business EV Charging Rebates

1.Program Alignment:
"Program redesign aligns well with customer needs."
Scale: 1 strongly disagree – 5 strongly agree
2.Program Support:
"I support the continuation and expansion of this redesigned program."
Scale: 1 strongly disagree – 5 strongly agree
3.Budget Appropriateness:
"The program appears to be right-sized (budget, goals, scope) for 2026-2028."
Scale: 1 strongly disagree – 5 strongly agree
4.Open Comment:
"What changes or improvements would you suggest for this program?"

Residential Smart Charging Pilot

Program Description:

Offers rebates to eligible residential customers for:

- Purchase and installation of charger
- Potential panel upgrades
- Integration of EV charging load management technologies

Enrollment options:

- Qualified Level 2 EV charger
- Qualified vehicle telematics system

Seasonal rewards for meeting participation requirements:

- Charge vehicle 13 times
- Participating in at least 3 demand response events
- Keeping EVSE (if applicable) online 50% of the season
- Demand response events occur every non-holiday weekday

Residential Smart Charging Pilot

	2023-2025 - Historical		2026-2028 TE Plan
Status	On track/expanding	**Strategy for 2026-2028**	Implement changes to reduce complexity at scale and grow program
Budget (Type)	**$6.5M (MMC)**	**Budget (Type)**	**~$13M (MMC)**
Key Learnings 2023-2024	• Vehicle telematics impacts inconclusive due to lack of unique control group	**Key Changes or Objectives 2026-2028**	• Re-align vehicle telematics and EVSE enrollment criteria and incentives
	• Gaps exist between load control event windows: 8 to 9 p.m. – last hour of system peak; 9 to 10 p.m. – resource constrained hour		• Expand EV plug in window to allow PGE to optimize demand response dispatch
	• Between one-third to one-half of participants are not able to recall requirements to earn seasonal incentive		• Simplify participation requirements to incentivize off-peak charging and improve customer understanding
Number of Ports	**6,150 as of 12/31/2024**	**Number of Ports**	**~12,500 by EOY 2028**

Questions for Major Changes on TE Customer Programs

Program	2023-2025 Budget	2026-2028 Budget	Change Summary	2023-2025 Ports	2026-2028 Ports Forecast
Residential Smart Charging	$6.5M (MMC)	$13M (MMC)	Expanded budget and simplified participation to grow the program	6,150	~12,500

Feedback:

<u>Residential Smart Charging</u>

1.Program Alignment:
"Program redesign aligns well with customer needs."
Scale: 1 strongly disagree – 5 strongly agree
2.Program Support:
"I support the continuation and expansion of this redesigned program."
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3.Budget Appropriateness:
"The program appears to be right-sized (budget, goals, scope) for 2026-2028."
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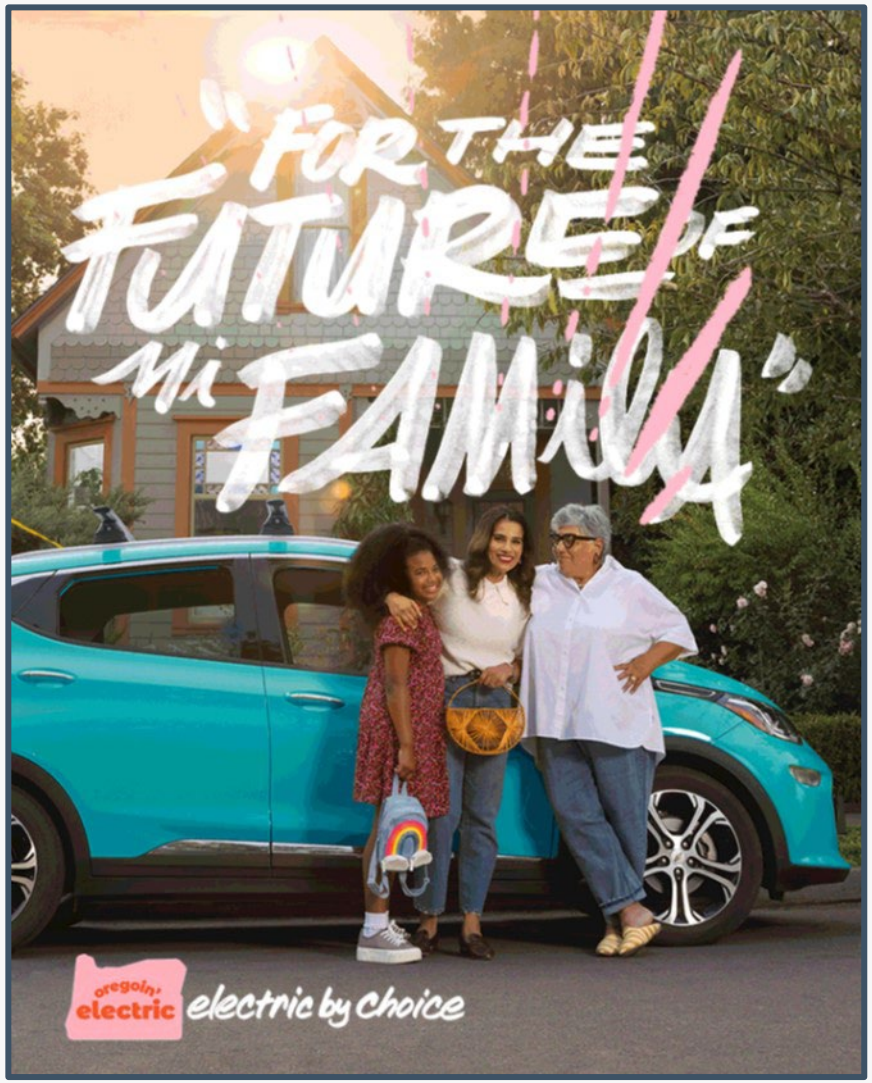
4.Open Comment:
"What changes or improvements would you suggest for this program?"

BREAK (5 min)

Oregon Clean Fuels Program (CFP)- Residential



CFP Residential Credits

PGE receives the majority of CFP credits from DEQ based on the number of residential EVs registered in the service area. As the number of EVs grows, so does the number of credits

Expenditure Guidelines

Revenue from CFP credit sales must be used in specific ways (on TE, to benefit residential customers, support underserved communities etc.)

Stakeholder Collaboration

Plans for CFP expenditures must be developed "transparently and collaboratively" with CFP stakeholders as part of TE Plans

CFP Program Principles Governed by OPUC Order 18-376 and 22-314

1. Support the goal of electrifying Oregon's transportation sector

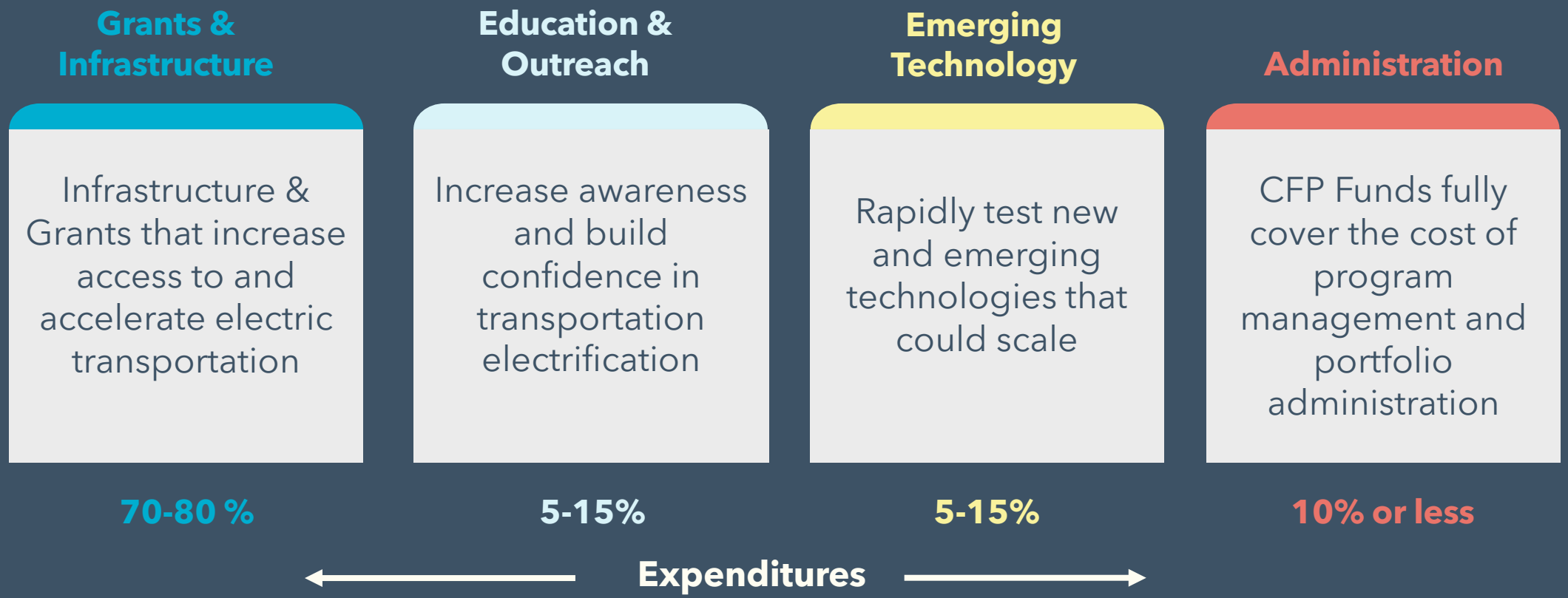
2. Provide majority of benefits to residential customers

3. Provide benefits to traditionally underserved communities

4. Programs are developed collaboratively and transparently

5. Maximize use of funds for program implementations (target: maximum 10% administrative budget)

2021-2025 Current State CFP Portfolio Areas



Clean Fuels Portfolio Evolution

- Key Learning from 2021-2024: flexible portfolio ranges are critical to allow for market dependent risks and evolving technologies
- Factors influencing strategy shift: Large swings in credit prices, last portfolio developed in 2020, alignment with utility role

Reduce costs to residential customers while maintaining CFP program principles

- This was the common theme
- Benefits need to flow back to residential customers

Support managed charging and grid benefits

- Benefits should flow back to residential customers

Grants are still needed

- Keep grants at a small but sustainable level
- Shift funding towards supporting school bus electrification

Regulatory CFP Stakeholder input: NWEC, OEC, Climate Solutions

2026-2028 Recommended CFP Portfolio Areas

Flexible Buses and Emerging Technology

Enable flexible TE load through school bus electrification and technology demonstrations

40-55%

Equitable Electrification

Community based equitable electrification transition and reduce costs to ratepayers

10-25%

Community Grants

Sustain funding at manageable scale for community TE projects

20-35%

Administrative expenses kept below 10% of portfolio

2026–2028 Outcomes for CFP Portfolio Areas

Flexible Buses and Emerging Technology

- ~65 buses and 50 V2X chargers through grants
- Additional V2X and emerging technology demonstrations to inform new rates or pilots
- If grant dollars are not fully utilized on buses or V2X chargers, then may look to fund other medium/heavy-duty and/or high mileage vehicles

Equitable Electrification

- Education and awareness activities including ride and drive events and PGE's EV costs and savings tool
- Underserved community engagement
- Technical assistance across grants and other programs
- Public charging maintenance & awareness
- Sch 50 Income Qualified Public Charging Discount outreach

Community Grants

- Maintain sustainable level of Drive Change Fund community grants
- In the first two years of the 2023-2025 TEP, Drive Change Fund funded 158 EVs (including micromobility) and 105 charging ports
- These grants will be responsive to changing funding landscapes in PGE service area and nationally

Administrative expenses kept below 10% of portfolio

Clean Fuel Portfolio Changes

The 2026–2028 CFP portfolio is refocused into three key areas:

- flexible TE load through school bus electrification (40–55%),
- equitable electrification efforts (10–25%), and
- sustainable community grants (20–35%),

All while keeping admin costs under 10%

This shift responds to stakeholder input and past program learnings, aiming to maximize residential customer benefits, increase flexibility, and reduce ratepayer costs amid volatile credit markets

City of Salem electric street sweeper

Feedback:

- Do you agree with Clean Fuels Program portfolio shift and outcomes?
- What else did you want to see Clean Fuels Program funds support?

Fleet Partner Pilot

Program Description:

The Fleet Partner pilot launched in 2021 to simplify and reduce costs for customers transitioning to electric vehicle fleets by providing planning and installation support, requiring a 10-year energy use commitment

The pilot includes two phases:

- **Plan Phase**: Offers free EV feasibility assessments, charging & vehicle analyses, fuel and clean fuel credit analyses, site visits, and detailed cost estimates—all summarized in a Fleet Partner Study
- **Build Phase**: Covers full design and construction of charging infrastructure, with incentives up to $400k based on load. PGE manages infrastructure up to the charger, while customers purchase, install, and maintain chargers, sharing charging data with PGE for 10 years

Fleet Partner Pilot

	2023-2025 - Historical		2026-2028 TE Plan
Status	On track/some risk	**Strategy for 2026-2028**	Plan and serve fleet electrification needs at a slower growth rate. Due to a fleet recession and macroeconomic factors starting in late 2024, new applications slowed, creating uncertainty for businesses. As a result, the projected number of sites and ports for 2026-2028 was reduced from initial pilot goals
Budget (Funding)	**$18.1M (Capital & O&M)**	**Budget (Funding)**	**~$5M (Capital & O&M)**
Key Learnings 2023-2024	• High satisfaction with technical assistance, turnkey offerings, and make-ready incentives aligned with 10-year commitments • Project timelines can be impacted by permitting and make-ready equipment. Limit impacts by ordering equipment & ensuring that project permits are applied for in advance • Fleet recession driven by post-pandemic demand shifts, excess capacity, and rising operational costs is causing decline in the fleet market • Fleet electrification market is also slowing due to tariffs causing market uncertainty and vehicle availability	**Key Changes or Objectives 2026-2028**	• Combine the line extension allowance and make-ready incentive amounts into one single incentive • Set a minimum site kWh commitment for eligibility, making requirements easier for customers to understand while ensuring sufficient revenue to support the make-ready incentive • Incorporate learnings of Fleet TOU advisory demonstration into pilot to support more off-peak use • The pilot will broaden outreach to include a fleet leaders' advisory group with quarterly meetings and in-person electric fleet events
Number of Ports	**571 (estimated 38 project sites)**	**Number of Ports**	**310 (estimated 30 project sites)**

Questions for TE Customer Programs with Small Changes

Program	2023-2025 Summary	2026-2028 Changes
Fleet Partner	High customer interest, $18.1M budget, 571 ports installed, focus on technical support and turnkey solutions	Reduced budget to $5M and 310 ports; increased focus on education while maintaining planning and grid readiness

Please review the table summarizing the program updates.

Feedback: Do you support the proposed 2026–2028 changes to Fleet Partner?

- Yes
- No – Please share your recommended changes in a short response below:

Your recommendation:

Portfolio Support

Program Description:

Portfolio Support provides essential services that benefit PGE's entire portfolio, rather than being tied to a single program. In the 2026-2028 TE plan, Portfolio Support will cover all base business operations and maintenance (O&M) costs, following OPUC guidance from PGE's most recent general rate case.

Key Components:

- Comprehensive Data Management
- Enhanced Planning and Modeling
- Program, Rate, and Portfolio Development
- Robust Reporting
- Administrative Support

Portfolio Support

	2023-2025 - Historical		2026-2028 TE Plan
Status	Included some costs associated 2023 TE plan development. Migrate asset management into PGE database services, establish data tracking for TE programs, evaluate and create reporting infrastructure	**Strategy for 2026-2028**	Provide comprehensive support for all programs and portfolio management, development, and reporting Collect and analyze data to inform future planning and enhance planning and EV forecasting accuracy
Budget (Funding)	**$2.5M (Capital & MMC)**	**Budget (Funding)**	**~$6M (O&M & MMC)**
Key Learnings 2023-2024	2022 MMC dollars were supporting outreach and education which was covered by Clean Fuels in 2023 and the MMC underspend was repurposed to panel upgrades in Residential Smart charging The management and oversight of assets with EV software providers require contract management upfront and continued monitoring and vendor management later on	**Key Changes or Objectives 2026-2028**	• No O&M budget increase, but improved transparency in reporting program development, administration, and planning costs • Improved insight into broader fleet and public charging growth through GridFAST tool • Improved forecasting models for EV adoption and load • Streamlined data integration and reporting
Number of Ports	Supports all program and PGE ports	**Number of Ports**	Supports all program and PGE ports

Questions for TE Customer Programs with Small Changes

Program	2023-2025 Summary	2026-2028 Changes
Portfolio Support	Established asset tracking and reporting systems, load forecasting and modeling improvements, TE plan development, and overall portfolio reporting on all ports and TE programs	Continued scope; increased transparency into full O&M costs for portfolio, program and rate development and broader TE support

Please review the table summarizing the program updates.

Feedback: Do you support the proposed 2026–2028 changes to Portfolio Support?

- Yes
- No – Please share your recommended changes in a short response below:

Your recommendation:

Public Charging – Electric Avenue

Program Description:

PGE's Public Charging Network:

- 10 public charging stations across PGE's service territory
  - 7 Electric Avenue locations
  - 3 Oregon Electric Byways sites

Station Details:

- Installed between 2016-2020
- Sites updated in 2022 & 2024
- Expand access to public charging and learn about grid impacts
- Ensure reliable charging and excellent customer service

Public Charging – Electric Avenue

	2023-2025 - Historical		2026-2028 TE Plan
Status	On Track/Maintain	**Strategy for 2026-2028**	10 public charging sites will transition into operations and maintenance only; no new sites are planned
Budget (Funding)	**$1.2M (Deferral)**	**Budget (Funding)**	**~$2M (O&M and Clean Fuels)**
Key Learnings 2023-2024	Electric Avenue charger reliability issues prompted upgrades in 2024, replacing older units at six of seven sites, resulting in improved uptime (from 76% to 95%) and a 455% usage increase from July to December 2024 Schedule 50 pricing changes in January 2025 include: • No more unlimited subscriptions • New idle fees • Higher peak rates • Narrower peak hours • Discounts for qualified low-income customers	**Key Changes or Objectives 2026-2028**	• Maintain Electric Avenue and Oregon Electric Byways sites to maintain a 97% uptime • Assess Schedule 50 pricing for peak reduction, idle fees, low-income discount use, and compare L2 pricing with Schedule 38 costs • Explore transferring ownership to third parties (2030-2033) to reduce ratepayer costs and support market growth
Number of Ports	**49 ports**	**Number of Ports**	**49 ports (no increase)**

Questions for TE Customer Programs with Small Changes

Program	2023-2025 Summary	2026-2028 Changes
Public Charging (Electric Avenue)	Maintained 10 sites with 49 ports, reliability upgrades completed, 455% usage increase, $1.2M budget	Maintain 49 ports with $2M budget; evaluate pricing impacts and potential 3rd party ownership by 2033

Please review the table summarizing the program updates.

Feedback: Do you support the proposed 2026–2028 changes to Electric Avenue?

- Yes
- No – Please share your recommended changes in a short response below:

Your recommendation:

Municipal Pole Charging

Program Description:

The Municipal Pole Charging Collaboration was piloted to enhance EV charging accessibility, particularly for residents without access to private garages or driveways. The program partners with municipalities to install Level 2 chargers on utility poles in underserved communities

Goals:

- Maintain pole chargers (no plan to expand)
- Monitor usage, maximize uptime, and ensure consistent charger availability
- Monitor pricing; all charging stations will operate under Schedule 50 pricing

Municipal Pole Charging

	2023-2025 - Historical		2026-2028 TE Plan
Status	On track/Maintain	**Strategy for 2026-2028**	Not expanding, will move to operations and maintenance of installed chargers
Budget (Funding)	**$6.0M (Capital & MMC)**	**Budget (Funding)**	**~$3.0M (MMC)**
Key Learnings 2023-2024	The program faced significant challenges including limited availability of pole locations, difficulty in municipal engagement, and unforeseen cost increases	**Key Changes or Objectives 2026-2028**	Uptime and customer experience will be monitored, with quarterly site visits to check for vandalism or damage. Faulty chargers will be repaired or replaced
	Pivot the program from expansion to focus on maintenance and operations for the next five years		PGE will conduct targeted outreach in low-utilization areas to boost awareness. If utilization doesn't improve, alternative strategies may be explored
	The program will not expand, instead focusing on optimizing existing infrastructure and enhancing operational efficiency		PGE will assess whether Schedule 50 peak pricing influences customers' charging times near their homes
Number of Ports	**Install 180 pole chargers** Note that some construction may complete in 2026	**Number of Ports**	**Maintain 180 pole chargers**

Questions for TE Customer Programs with Small Changes

Program	2023-2025 Summary	2026-2028 Changes
Municipal Pole Charging	Installed 180 pole chargers, Pivoted the program from expansion to focus on maintenance and operations for the next five years	Maintain 180 pole chargers with a $3M budget, PGE will implement targeted outreach campaigns in low-utilization areas to enhance awareness and understanding of the charging infrastructure

Please review the table summarizing the program updates.

Feedback: Do you support the proposed 2026–2028 changes to Municipal Pole Charging?

- Yes
- No – Please share your recommended changes in a short response below:

Your recommendation:

Budget Comparison of Current & Proposed TE Plan

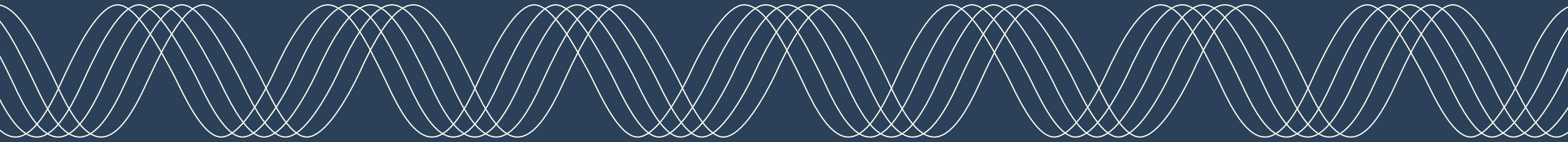
Program Changes	Program	2023- 2025 Budget	2026-2028 Budget*	Changes in Budget*	Funding Type	Key Change
Small Adjustments	Fleet Partner	$18 M**	$5 M	$-13 M	Rates	Decreased enrollments, improved TCO tool, potential rate advisory
	Heavy Duty Charging	$3.6 M	$0.4 M	$-3 M	Rates/MMC	No changes; finishing final scope of pilot
	Muni Pole Charging	$6 M	$3 M	$-3 M	MMC	Installed pole chargers will transition into operations and maintenance only; no new sites are planned
	Portfolio Support	$3 M	$6 M	$3 M	Rates/MMC	Continued data and modeling improvements, inclusive of all O&M
	Public Charging (Electric Avenue)	$1 M	$2 M	$1 M	Rates/Clean Fuels	10 existing sites will transition into operations and maintenance only; no new sites are planned
Incremental Adjustments	Muni Curbside	$8 M	-	$-8 M	N/A	Program sunset, reallocating funds to Business EV Rebates and Strategic Grid Investments
	Clean Fuels Program	$43 M	$45 M**	$2 M	Clean Fuels	Updates to portfolio strategy: continued grants, demos and V2G incentives for future flex load enablement, technical assistance, EV education, and public charging support to reduce ratepayer pressure
	Business EV Charging Rebates	$6 M	$14 M	$8 M	MMC	Budget expanded to support underserved increased incentives; merge with Business and Multifamily Makeready; increased budget to serve all three years instead of two years in prior plan
	Residential Smart Charging	$7 M	$12 M	$5 M	MMC/Rates	Expanded budget and simplified participation to increase enrollment
New Program	Commercial Demonstrations	N/A***	$3 M	$3 M	MMC	New demos for VPP/flex load enablement
	Strategic Grid Investments	N/A	$3 M	$3 M	MMC	Testing new datasets for targeted upgrades in low-capacity areas
	Resiliency Charging Hub Demonstration	N/A	$2 M	$2 M	MMC	Resilience hubs w/solar, storage, EV charging
Total		$96M	~$96M	~$0M		

- Preliminary Numbers are provided for discussion and may shift in filed draft TE plan on July 1, 2025

** Total Clean Fuels revenue is forecasting $46M but a portion is covering Public Charging (Electric Avenue) program to reduce ratepayer pressure

*** $0.7M MMC dollars from Fleet Partner funded demonstrations between 2023-2025

Next Steps and Closing Remarks



Next Steps & Closing Remarks

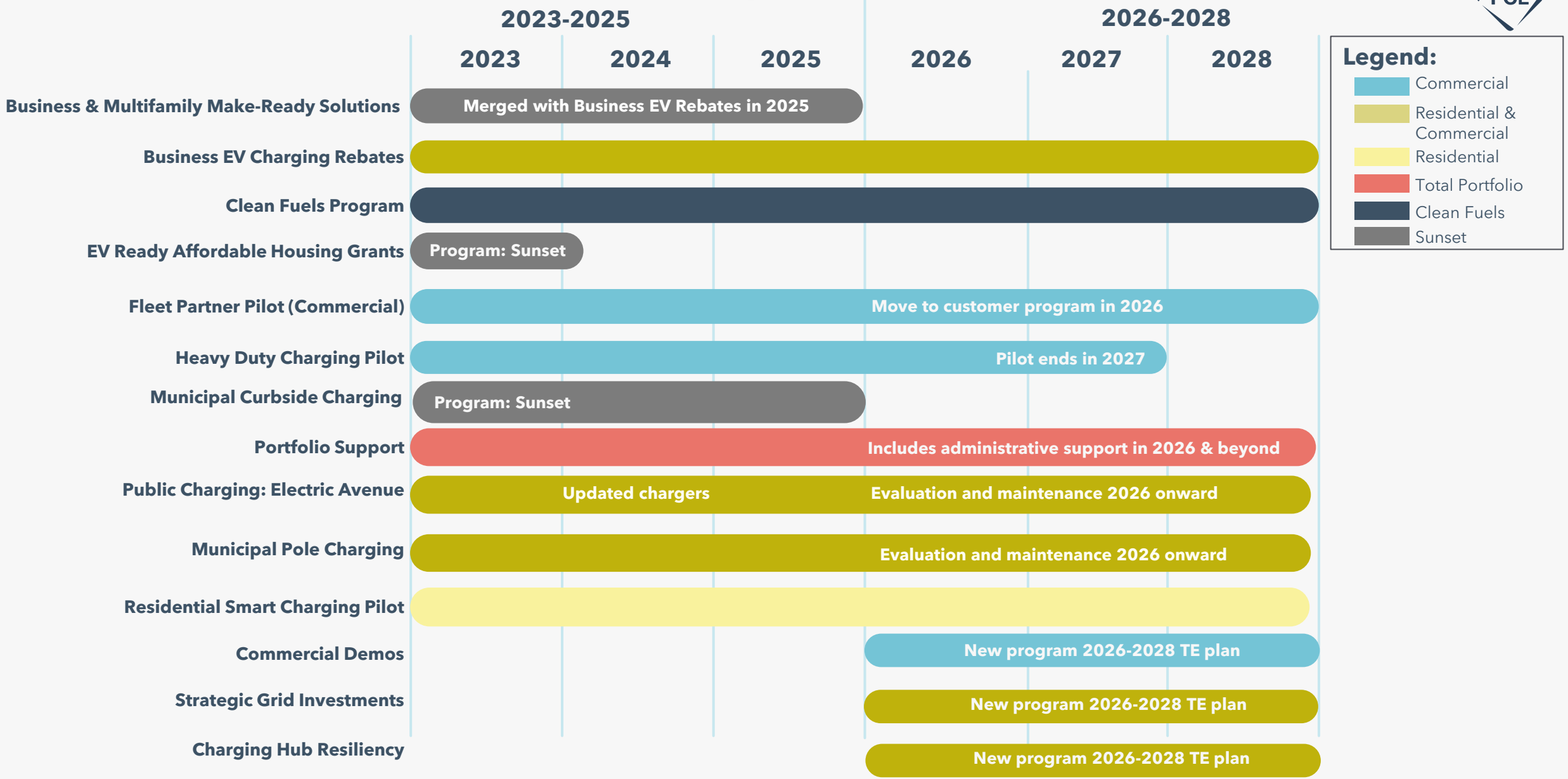
- Docket schedule for stakeholder comment by 5/28: um2033hah336772026.pdf
- Friday June 6 | Meeting notes, feedback and comments, & recording uploaded to website
- Tuesday July 1 | PGE TE plan draft filing | UM 2033
- TE plan finalization target is December 2025

Meeting materials and recording will be posted to our Plan's Engagement webpage at Plans Engagement | Portland General Electric

For more information or if you have questions, please email us at TEP@pgn.com

Thank You for your participation in our plans

TE Customer Program Roadmap 2023-2028



New TE customer programs summary

Program	Purpose	Strategy & Objectives (2026-2028)	Budget	Target Scale
Commercial Demonstrations	Advance managed charging with commercial customers	Launch 3 demos (Fleet, Workplace, Multifamily); test 3–5 vendors; enroll 20–30 commercial sites. Support self-managed or automated load to enable VPP	**$2.8M (MMC)**	Up to 1,100 ports and 15 MW of capacity
Strategic Grid Investments	Accelerate grid upgrades in low-capacity areas to enable TE	Execute <$5M grid projects within 3 years in low/no-capacity areas. Coordinate outreach to fleets and charging companies. Expand grid capacity in rural/priority areas	**$2.7M (MMC)**	TBD
Community Charging Resiliency	Provide backup power and reliable charging in wildfire-impacted, high-risk areas	Build hubs with solar, battery, and EV charging to support resilience during PSPS and outages. Enable DER/VPP participation, reduce outages, and support underserved communities	**$3.0M (MMC)**	TBD (based on siting and resilience priorities)

Heavy Duty Charging Pilot – No Changes to Pilot Scope

Program Description:

PGE and Daimler Truck North America partnered to create Electric Island, a test site opened in 2021 to explore optimal ways to design, build, and operate medium- and heavy-duty Megawatt EV charging facilities. The program is estimated to complete in 2026

Technologies Tested:

- high powered charging (including **MW chargers**)
- battery storage
- solar power
- site energy management

Benefits:

- Provide data to optimize future MW customer charging sites
- Informs proactive planning, avoiding costly, unplanned grid upgrades

Heavy Duty Charging Pilot – No Changes to Pilot Scope

	2023-2025 - Historical		2026-2028 TE Plan
Status	On track	**Strategy for 2026-2028**	Continued execution of work already in scope.
Budget (Funding)	**$3.6M (Capital)**	**Budget (Funding)**	**$0.4M (MMC)**
Key Learnings 2023-2024	Installation timing can take longer than anticipated due to permitting challenges and contractor inexperience with new technology	**Key Objectives 2026-2028**	Complete testing and evaluate the value of the behind the meter battery energy storage system paired with medium- and heavy-duty charging
	It is important to utilize contractors with technology and jurisdiction specific permitting expertise		Install, test and evaluate grid impacts and load profiles of megawatt scale charging
	Development of new charging standards (ie megawatt scale charging) can take longer than anticipated, and is susceptible to market forces		Install, test and evaluate value of solar co-located with battery energy storage and high-power charging
Number of Ports	**15 ports**	**Number of Ports**	**15 ports (no increase)**