

Order 91297 'Electric Vehicle Pilot Phase 1 Evaluation and Next Steps' was issued by Maryland's Public Service Commission (PSC) on August 23, 2024. Order 91297 directed Maryland utilities to prepare proposals for Phase 2 of the PSC Electric Vehicle (EV) Pilot Program, and coordinate with the Maryland Zero Emission Electric Vehicle Infrastructure Council (ZEEVIC) on certain program components.

Utility Electric Vehicle Phase 2 Proposals were presented at the October 23, 2024 ZEEVIC meeting and posted on the <u>ZEEVIC website</u> for additional public comment. The presentations included are:

- Baltimore Gas and Electric Company (BGE): pages 2 to 9
- Pepco and Delmarva Power Maryland (PHI): pages 10 to 17
- Potomac Edison (PE): pages 18 to 22
- Southern Maryland Electric Cooperative (SMECO): pages 23 to 31



October 23, 2024

# Transportation Electrification

EV Phase 2 Portfolio Design: Engaging Key Stakeholders for Success

#### Goals

## LEADING THE CHARGE FOR SUSTAINABLE MOBILITY



**ALIGN WITH OBJECTIVES SET FORTH BY MARYLAND'S POLICIES** that enable customers' decarbonization journey.



**MANAGE THE ANTICIPATED SURGE IN DEMAND** resulting from widespread adoption of EVs while promoting equity.



**PROMOTE EV UPTAKE** within the state through rebates, incentives, & enhanced public charging infrastructure accessibility.



**CUSTOMER EDUCATION** to raise awareness of EVs, charging options, and how to manage EV energy costs.



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#### **FINANCIAL INCENTIVES**

Access to rebates and incentives for EV adoption and infrastructure investments, making the transition to electric vehicles more affordable.



#### **IMPROVED CHARGING INFRASTRUCTURE**

Enhanced access to public charging stations reduces range anxiety, promotes widespread EV adoption, and improves air quality by lowering vehicle emissions.



#### **EQUITABLE ACCESS**

Programs designed to ensure that all communities, especially underserved ones, have access to EV resources and incentives, promoting inclusivity in the transition to clean transportation.



bge

#### **INFORMED DECISION-MAKING**

Comprehensive customer education on EV benefits, charging options, and energy management, empowering consumers to make informed choices and optimize their energy costs.

## Overview **EV CHARGING PORTFOLIOS**



#### **MANAGED CHARGING**

Enhancing grid efficiency & stability



## **COMMUNITY CHARGING**

Increasing public access to EV infrastructure



## **COMMERCIAL CHARGING**

Enabling businesses to electrify their fleets

#### **Policy**

#### Uptake





## HOME CHARGING INCENTIVE

Managed Charging Portfolio

A passive managed charging program encouraging customers to charge 90% off-peak annually

#### VEHICLE CHARGING TIME OF USE (TOU)

An on-peak/off-peak rate only applied to when a customer charges their EV

## SMART CHARGE MANAGEMENT

Active managed charging program prioritizing customer charging preference & grid signals

Approved

2023 Phase 2 Proposal

Residential EV drivers who

## MULTIFAMILY MANAGED CHARGING

Off-peak charging incentive for customers in multifamily homes

## FLEET MANAGED CHARGING

Charge management software (CMS) enabling fleets to interconnect quickly by limiting charging load

## STATE

AUIDENCE

CHALLENGE

#### Discontinue Dec 2024

Residential EV drivers who may not be eligible for the Vehicle Charging TOU rate.

Some EV owners can't

participate in the EV TOU

rate but still want to take

advantage of savings by

charging during off-peak

annual \$50 gift card for

off-peak (9pm-7am) year-

Customers can participate

through vehicle telematics

or Level 2 smart charging.

charging their vehicle >90%

· Customers receive an

times.

round.

rate because of their electric

#### **Approved**

2023 Phase 2 Proposal

 Residential EV drivers enrolled in BGE's Schedule R rate who have a smart L2 charge and/or vehicle with onboard telematics.

• As more EV drivers charge

• By encouraged greater shift

for all customers.

rate.

Customers can stay on

schedule R rate and EV

Participation is through

smart charging.

billing cycle.

charging is placed on TOU

vehicle telematics or Level 2

Their credit appears on their

kWh used for charging each

monthly bill based on the

to off-peak times, BGE can

ensure more reliable power

on BGE's system, it increases

peak demand for electricity.

- drive Tesla vehicles and charge at home.
- As more EV charging is occurring at the same time, demand for electricity will increase and require more costly, faster upgrades if charging is left unmanaged.
- Customers allow BGE to manage EV charging load in exchange for \$10 monthly bill credit.
- Participation occurs through vehicle telematics of Level 2 smart charger.
- Managed charging spreads out EV charging load over a longer period, ensuring vehicle is still ready when needed.

#### **New Program**

 Residential EV drivers without access to dedicated home charging.

- z chorging.
- About 25% of MF customers lack dedicated charging solutions.
- Participation is limited in managed charging programs, creating inequities in savings opportunities.
- Enroll via vehicle telematics.
- Customers can charge throughout our service area.
- Earn a \$5 incentive for every 100 kWh up to \$20 a month.
- For discussion: \$5 monthly reward for charging >85% off-peak.

#### In Development

- Commercial fleet customers transitioning to electrification.
- Many commercial customers struggle with electrification due to insufficient site capacity for fleet charging, leading to project delays and frustration.
- Provide a list of CMS providers for fleet customers with capacity limits, who will set charger load limits accordingly.
- Allow customers to interconnect more quickly by limiting chargers to not exceed nameplate capacity.
- Provide incentive for setup fees and physical CMS device.



#### **BGE EVsmart**

## Community Charging Portfolio











#### **PUBLIC UTILITY OWNED**

Empowering widespread EV adoption through utility ownership.

#### **MULTIFAMILY UTILITY OWNED**

Utility ownership for equitable athome EV charging.

#### **CHARGER-AS-A-**SERVICE (CaaS)

Flexible, subscription-based access to electric vehicle (EV) charging infrastructure.

#### **PUBLIC MAKE-READY INCENTIVES**

Make-ready incentives for commercial property owners to deploy EV charger installation.

#### **Discontinue Dec 2025 Continue Operate and Maintain**

 State owned properties in which there is publicly available parking.

· Commission chargers where

environmental justice (EJ)

the private market was less

#### **Continue New Installation Continue Operate & Maintain** 2023 Phase 2 Proposal

Property Managers of apartments, condominiums, and HOA boards.

#### In Development

Property Managers of apartments, condominiums, HOA boards, and Workplace.

• High upfront costs and

communities.

charger deployment in

Some communities need

to operate EV stations.

installing complexity hinder

additional financial support

#### **New Program**

2023 Phase 2 Proposal

- Commercial entities with publicly accessible parking, such as shopping centers, civic centers, garages, hotels, and other destination locations.
- High upfront costs for EV charging infrastructure can be a significant barrier.

# CHALLENGE

## • 372 chargers commissioned.

likely to install.

communities.

• Strategically place in

• 127 of chargers strategically placed EI communities, including 3 in Johnston Square and 12 planned at Coppin State University

- Operate up to a total of 475 public charging stations.
- Focused on enhancing charger reliability & transparency.

- High upfront costs and installing complexity hinder charger deployment in communities.
- Many communities lack the resources to own and operated EV stations
- 100 chargers currently approved.
- Additional 200 chargers to continue to offer this service to more communities with this challenge.
- The rebate covers 50% of the subscription fee, up to \$100 per port, with a minimum of four ports required per community over the five-year term.
- Disadvantage communities can receive a higher subscription rebate.
- Rebates will cover 75% of upgrades, up to \$30,000 per site.
- Disadvantage communities can receive a higher subscription rebate.

## STATE

## **AUIDENCE**

# **PROGRAM STRUTURE**

#### **BGE EVsmart**

## Commercial Charging Portfolio











#### COMMERCIAL **REBATES**

Rebates and incentives for installing charging stations at their property

#### **FLEET EVSE INCENTIVES**

Incentives for installing charging stations for business fleets

#### **FLEET MAKE-READY INCENTIVES**

Incentives for infrastructure upgrades to install chargers

#### FLEET **ASSESSMENTS**

Evaluation of fleet electrification needs, metrics, and infrastructure

## STATE

**AUIDENCE** 

CHALLENGE

# PROGRAM STRUTURE

#### **Discontinue Dec 2024**

Multifamily, small business or non-profit workplace.

High upfront costs and installing complexity hinder charger deployment.

- Rebate for 50% of the cost of eligible EV charging equipment and installation:
- Up to \$5,000 per port for L2 EV chargers
- Up to \$15,000 per DCFC station for
- · Maximum incentive of \$30,000 per site.

#### **New Program**

2023 Phase 2 Proposal

- All vehicle fleets, including commercial, non-profit, educational institutions, transit agencies, and other operators, excluding private individuals.
- Fleets face internal and external mandates to electrify.
- High upfront costs and installing complexity hinder charger deployment.
- Incentives of 50% of project cost up to:
- L2AC: \$5k / port
- L3DC: \$15k / port
- \$30k max / location (limit 2)
- Disadvantage communities can receive a higher subscription rebate.

#### **New Program**

2023 Phase 2 Proposal

- All vehicle fleets, including commercial, non-profit, educational institutions. transit agencies, and other operators, excluding private individuals.
- Fleets face internal and external mandates to electrify.
- High upfront costs and installing complexity hinder charger deployment.
- Tiers for Light Duty (LD) and Medium/Heavy Duty (MHD) vehicles:
- LD → 90% project cost up to \$15k
- MHD → 75% project cost up to \$100K
- Disadvantage communities can receive a higher subscription rebate.

#### **Part One Approved** Part Two In Development

- All vehicle fleets, including commercial, non-profit, educational institutions, transit agencies, and other operators, excluding private individuals.
- Fleet operators feel pressure to electrify from various sources but often lack a clear starting point.
- Electrification efforts are delated without fleet & grid assessments.
- Part 1: Focused on fleet needs: vehicle choice. charger options, total cost of ownership and CO2 impact analysis.
- Part 2: Conducting site evaluation to install necessary equipment, including providing support for completing utility service application.







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October 23, 2024

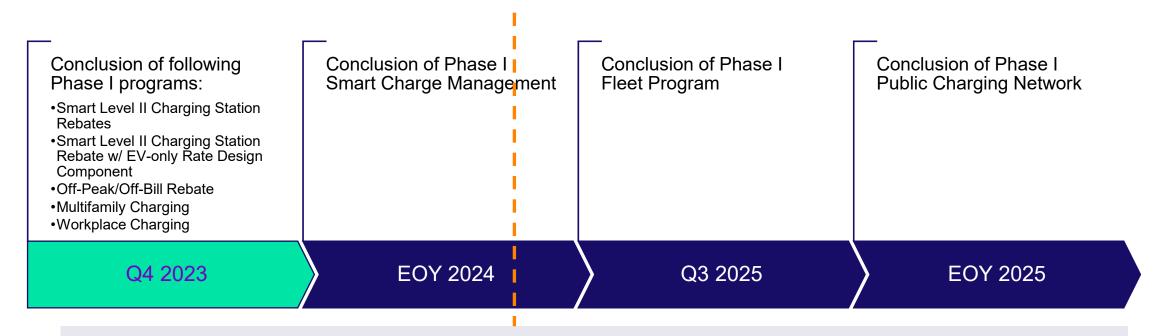
# Pepco and Delmarva Power Maryland EV Phase II Programs

## **Advancing EV Adoption in Maryland**



- Committed to advancing Maryland's decarbonization, beneficial electrification and EV adoption goals
- Developed a comprehensive portfolio of EV charging programs to address barriers to EV adoption and learn more about customer charging habits and future grid impacts
- 3. Embraced the **Utilities' role as active partners** in transportation electrification, accelerating infrastructure development while addressing load management and grid preparedness

## **EV Phase I Offerings**



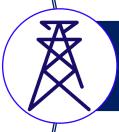
#### **Future Program Offerings Opportunities**

- 1. Participate as an active partner in the transportation electrification shift by providing information and support to our customers
- 2. Manage impact to the grid through passive and active managed charging
- 3. Support infrastructure growth through targeted make-ready incentives with an emphasis on equity and accessibility

General
Feedback from
Intervenors on
EV
Transportation
programs:



Mitigate impact of new EV load through active load management to reduce overall impact to the grid infrastructure



Utility-side costs should be recovered through traditional mechanisms



Passively incentivize customers to align charging patterns with existing grid availability

## **Customer Benefits from Phase II Programs**



- Increased access to and reduced cost of EV charging infrastructure
- Increased incentives for small business customers and under-resourced communities
- Improved air quality



- Maintains public charger reliability at 97% uptime to bolster customer confidence in the availability of charging infrastructure
- Accessible charging for individuals where charging at their residence is not presently feasible



- Shifts and flattens EV charging load to reduce the burden on distribution assets while meeting driver mobility needs
- Incentivize EV users to adapt charging habits to minimize impact to the grid

## **Phase II Portfolio Summary**

Туре	Market Segment	Program	Description
Make-Ready & Support	Commercial	Destination Charging Make Ready	Incentives to support installation of charging stations at commercial facilities/travel destinations.
		Public Transit Bus Make Ready	Incentives to address the infrastructure development needs of public transportation providers.
		Multi Family Make Ready	Incentives for charging ports installed at multifamily locations.
		Private Fleet Charging	Incentives to support private fleet customer installation of charging infrastructure for use by fleet vehicles operating in or serving Justice 40 (J40) communities.
		EV Make Ready Site Assessment Services	Provides a pre-application technical assessment for the siting of EV fleet conversions and DCFC locations.
Public Infrastructure	Public	Utility-owned public charging	Operate and maintain the existing Company-owned public EV charging stations.
Load Management	Residential	Smart Charge Management	Residential customers opt in to EV load management and are incentivized to let the utility shift load as needed.
		EV Time-of-Use	Residential customers opt into a passive EV load management schedule and are incentivized to charge off peak.

## Filing Timeline



## September/October 2024

Program design stakeholder engagement



December 2024

File EV Phase II programs



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Potomac Edison's 5-year Phase II Proposal PSC Order 91297



## Maryland EV DRIVEN Phase II Proposal

## UPDATES TO EXISTING PROGRAM ELEMENTS

01 Residential

02

03

Company Owned and Operated

Multifamily Housing



#### Phase I

Rebates toward charging port and installation

EV-Only Time of Use Rate<sup>2</sup> \$0.02/kWh credit for off-peak charging \$0.02/kWh addition for on-peak charging

Installation, ownership, and operation of 59 public stations including 39 L2 and 20 DCFC.

All stations have been installed and currently maintained by PE

Rebates of 50% of cost to acquire and install eligible L2 station

- Up to \$5,000/ port (max \$20,000 per site)
- Maximum 50 ports

Install up to 7 company owned stations at MFH locations



## Proposed<sup>1</sup>

Rebates have been fulfilled and will not be included in Phase II Proposal

EV-Only Time of Use Rate continuation **Expanding to include Net Energy Metering** 

Introduce residential active managed charging pilot

Continue to own and maintain all 59 public stations

Upgrade port connectors on 20 existing DCFC stations to include J3400 at each site

Rebate offering continuation "Claw back" provision to be added

Install up to remaining 4 utility owned L2 chargers in underserved communities<sup>3</sup>

MFH-EV Rate, Resi Rate Comparability



PE agrees rebates served purpose

Expansion of EV-Only TOU allows for more customer participation

Active managed charging pilot allows PE to study how this program can reduce grid impacts of EV charging

PE's public charging network provides essential service to customers and drivers in Western MD as charging options are still limited in PE's service territory

PE wants to keep up with marketplace changes and ensure positive customer experience

PE is committed to continuing offering an array of charging solutions for our customers at multi-family housing locations.

Important segment to reach to provide equitable access to charging for our customers

PotomacEdison<sup>®</sup>

- . All numbers contained under 'Proposed' are from the original Phase II filing and subject to change after further review in preparation for the December filing.
- 2. EV TOU was an interim change. Off-peak charging credit was utilized until PE was able to implement the EV-Only TOU Rate
- 3. The Commission previously approved a total of 7 Level 2 charger installations. Three have already been installed, remaining are reserved for underserved communities. Directed to work with ZEEVIC to identify market gap and where chargers are needed.

## Maryland EV DRIVEN Phase II Proposal

#### **NEW PROGRAM ELEMENTS**

04 Charger as a Service

Government Site
Assessment

06 Government Fleet

## Proposed<sup>1</sup>

## Incentives for site hosts to pay for a third-party service plan

Available for EV charging on commercial property open to the public or which service multifamily communities

Quarterly incentive payments up to \$500

Available for up to 150 Level 2 ports at a cost of \$10,000 per port

## Site-specific assessments informing customers of options related to EVSE design, permitting, and construction

Up to \$15,000 per site assessment

Available for up to 35 site assessments for federal, state, and local government entities

## Incentives up to \$15,000/port for behind-the-meter make ready and EVSE

Incentives up to \$22,500/port for underserved communities

Up to 50 incentives for federal, state, and local government entities, limited to EVSE for vehicles owned or leased by public entities or dedicated to public use



PE recognizes commercial customer concerns with cost, confusion, and uncertainty when installing EVSE. This framework is designed to assist in those areas.

PE is offering this element to support government entities in their efforts of deploying EVSE infrastructure

Targeting public entities ensures that the additional services benefit entire communities rather than individual entities

PE is offering this element in support of advancing MD's vehicle conversion initiatives such as Clean Trucks Act of 2023<sup>2</sup>

<sup>1.</sup> All numbers contained under 'Proposed' are from the original Phase II filing and subject to change after further review in preparation for the December filing.

Md. Code, Envir. § 2-1103. The Clean Trucks Act requires the Maryland Department of the Environment ("MDE") to adopt regulations that, among other things, (1) establishes requirements for the sale of new zero-emission medium; and heavy-duty vehicles in the State; (2) updates existing regulations and incorporates by reference the California Air Resources Board's ("CARB") Advanced Clean Trucks ("ACT") regulations, as revised and updated; and (3) takes effect starting with model year 2027.

## Maryland EV DRIVEN Phase II Proposal

#### **NEW PROGRAM ELEMENTS**

07 Grant Assistance

Program
Management

09



## Incentives to support services such as writing, reviewing, and submitting grant applications

Post-award reporting and monitoring for fleet conversion and charging Up to \$50,000 per grant

## Onboard two dedicated full-time employees to support program elements and expand suite of offerings

Perform functions including developing program materials, conducting customers outreach, ensuring requirements are met and approving requests



PE is offering this element in effort to increase likelihood of success in brining investment capital to MD and to highlight opportunities and benefits of transportation electrifications

Based on Phase I findings, PE is aware of the timeintensive undertaking and significant outreach/assistance required to successfully deliver transportation electrification initiatives

#### **POTENTIAL PROGRAM ELEMENTS**

**Workplace Charging** 

PE intends to consult with MDOT and ZEEVIC to develop workplace programs that provide incentives and technical assistance

10 Fleet & M/HDV Load

PE intends to consult with MDOT, ZEEVIC, and DSP to address impact of fleet and M/HDV load





## Focused on Our Future

# Thank You





## Southern Maryland Electric Cooperative, Inc.

EVRecharge Program Phase II





October 23, 2024



## Phase II Order

## EV LV2 Charger Residential Rebates:

- Commission ordered this program to end 12/31/2025
- SMECO offered no type of LV2 charger rebate

## Residential Data Sharing Programs

- Commission ordered this program to end 12/31/2025 unless there is an anticipated need
- SMECO sees no anticipated need to request expending past the 13/31/25 date.
- SMECO will be requesting those current customers that are participating to be allowed to be enrolled into either the Managed Charging Program or into the EV TOU rate with an opt-out provision. SMECO will choose the enrollment based on the OEM enrolled.



## **Public Charging**

## Public Charging

- To date SMECO has installed 40 Public Chargers for a total of 80 ports
  - 4 DCFC's
  - 36 LV2
  - SMECO isn't asking to install any more public facing chargers
  - Currently in the process of on-boarding Charger Help to assist SMECO to meet reliability measures.
- Phase II unless ordered SMECO has no plans to continue installing public chargers.



## EV Residential Charging Programs

## **EV TOU**

#### Current Pilot:

- Schedule EV-TOU to SMECO's Retail Electric Service Tariff approved by the MDPSC with an effective date of December 1, 2023 (Residential EV TOU for SOS supply rate)
- Currently continuing to work with OEMs to add chargers and vehicles to the participating vendor list.
  - Q4 2024 Toyota and Lexus
  - Late Q4 / Q1 2025 Wallbox and Stellantis
  - 2025 GM and Volvo

#### Phase II

 SMECO will be proposing changes to the EV TOU to allow NET customers to participate in the EV TOU rate

## **EV Residential Charging Programs**

## **Managed Charging Program**

- Currently under the EV Phase I Pilot there is a cap on the participation of 1,000. For Phase II, SMECO will be requesting to allow the managed charging program allow managed charging to become a full fledged program without the participation caps.
- Managed Charging currently uses the same on and off peak rates as the EV TOU tariff
  while also allowing SMECO to modify charging at any time.
- SMECO and our vendors are working with OEMs to add more vehicle and charger manufacturers to the program.
- OEM being added in 2025
  - Toyota, Lexus, GM, Volvo and Stellantis
  - Wallbox
- Currently Net Metering customers can participate in the managed charging program



## Multi-unit Dwelling Chargers

- Commission approved chargers
  - First one under construction.
- Phase II
  - Tariff Schedules
    - SMECO will be amending current General Service Small (GS-S) and General Service Small TOU
      - Level one and Level two charging only



## EV Residential Charging Programs

## Additional Multi-Unit Charging Options

• Working to develop Level 1 charging tariff at multi-unit dwellings.



## Fleet and Workplace Charging

- To date there are under 7,000 registered EVs in the SMECO service territory and few M/HDV vehicles registered.
- SMECO believes that most businesses that could electrify aren't ready to yet but the need is there to gage where our members and what their needs will be.
  - SMEC is working to engage commercial customers
    - SMECO will create a fleet and workplace charging registry and survey to see when, where, and how each individual member wants to electrify.
- Phase II EV Programs
  - Using those surveys, SMECO will built a EV Fleet/Workplace Resources page to point fleets to all relevant resources and tools. This website will be available Q1/Q2 2026
  - Develop a fleet customer facing education, marketing, engagement and outreach platform. These services could be available Q2/Q3 2026
  - Still developing the budget for Phase II



## Questions?

