



October 6, 2021

Andrew S. Johnston
Executive Secretary
Public Service Commission
6 St. Paul Street
Baltimore, MD 21202

Re: Case No. 9478, Comments of the Alliance for Automotive Innovation in the Matter of Mid-Course Electric Vehicle Pilot Programs

Dear Secretary Johnston:

The Alliance for Automotive Innovation (“Auto Innovators”)¹ thanks the Maryland Public Service Commission (“PSC”) for the opportunity to provide comments on the Mid-Course Electric Vehicle (EV) Pilot Programs (“Pilots”).

The automotive industry is committed to transitioning to an electrified future. By 2025, the sector will have invested over \$330 billion in vehicle electrification, resulting in more than 130 EV models for sale in the United States. In addition to the promise of long-term greenhouse gas emission reductions, EVs can also benefit ratepayers by improving utilization of utility generation, transmission, and distribution assets. Put simply, EVs represent a flexible, smart load that can help flatten load curves, improve overall system efficiency, promote grid utilization of renewable energy sources, and thus lower electric costs for all ratepayers. Transportation electrification has the potential to provide widespread benefits and help achieve policy goals ranging from emissions reduction to renewable energy integration to stabilization and modernization of the electric grid.

A successful transition to an electrified future will need cooperation and coordination across multiple sectors and industries. Utility involvement is needed to achieve scale and unlock the widespread benefits of transportation electrification. Ultimately, this will benefit all stakeholders, including but not limited to ratepayers, EV drivers, and electric vehicle service providers. The EV pilots from Baltimore Gas & Electric (BGE), Potomac Electric Power Company (PEPCO), Delmarva Power & Light Company (together with PEPCO, the “PHI Utilities”), Potomac Edison, and Southern Maryland Electric Cooperative (“the utilities”) are an important step in

¹ Formed in 2020, the Alliance for Automotive Innovation is the singular, authoritative, and respected voice of the automotive industry. Focused on creating a safe and transformative path for sustainable industry growth, the Alliance for Automotive Innovation represents the manufacturers producing nearly 99 percent of cars and light trucks sold in the U.S. The newly established organization, a combination of the Association of Global Automakers and the Alliance of Automobile Manufacturers, is directly involved in regulatory and policy matters impacting the light-duty vehicle market across the country.

increasing the EV charging infrastructure available to Maryland residents. We appreciate the PSC taking a whole charging ecosystem approach to the pilot programs including focusing on residential smart charging and time-of-use rates, multi-family property charging, and education and outreach.

Time-of-Use Rates and Smart Charging

Residential charging continues to be the main charging source for EV customers. By offering rebates and incentives for the purchase and installation of EV chargers, utilities can reduce the cost burden of EVSE and make the purchase of EVs more appealing for potential customers, hence increasing the EV market. Auto Innovators appreciates the BGE, PHI Utilities, and Potomac Edison pilots, which provide \$300 rebates for residential customers who purchase an approved L2 charger. As part of these rebate programs, customers also enroll in an EV-specific time-of-use (TOU) rate. These types of incentive programs, both the rebate and TOU rate, help make residential charging more convenient and affordable.

TOU rates are a foundational component of vehicle-grid integration (VGI) and can offer significant grid benefits.² In addition, more active solutions like active managed charging with one-way power flow (V1G) or vehicle-to-grid solutions with bidirectional power flow (V2G) can complement rate design. Taken together, these VGI solutions have the potential to improve reliability and lower the cost of electrical service by avoiding adverse grid impacts from on-peak charging, lowering the costs of integrating increasing levels of variable renewable generation, and increasing the utilization of existing assets, thereby putting downward pressure on electricity prices to the benefit of all utility customers.

BGE and PHI Utilities have allowed the use of vehicle telematics to participate in smart charging. Auto Innovators applauds the PSC, BGE, and PHI Utilities for looking to innovative approaches to smart charging that involve vehicle telematics and do not rely solely on the EV charger. Providing customers with the ability to manage charging directly through their EV simplifies the customer experience and could help support higher rates of enrollment than a program focused solely on EVSE. Telematics-based approaches offer many additional benefits: they may avoid the cost and inconvenience of installing a dedicated meter for the vehicle, provide data on charging patterns wherever customers charge their vehicles, allow customers to choose a home charger that meets their needs, and create an opening for OEMs to assist in recruiting customers to participate in EV-only rates. We would like to request that the PSC and utilities allow other vehicle manufacturers to participate using vehicle telematics in the pilot program as well. To date, vehicle telematics participants have been owners of a vehicle from a single manufacturer. It could be helpful if pilot programs include multiple vehicle manufacturers'

² <https://ww2.energy.ca.gov/2019publications/CEC-500-2019-027/CEC-500-2019-027.pdf>

telematics to show that the efficacy of telematics-based programs is not limited to a single manufacturer. Pilot programs such as these are helpful throughout the country as other state utility commissions can learn from Maryland and use similar innovative strategies.

Multi-Family Property Charging

Multi-family properties continue to be very important charging sources for many customers. In large cities such as Baltimore, where multi-family properties are predominant and parking options can be limited and/or costly, having the ability to charge while the vehicle is parked at home is critical. Without EV chargers, or the capability to install chargers at these locations, the lack of multi-family property charging will be a barrier to EV adoption. Auto Innovators appreciates that BGE, PHI Utilities, and Potomac Edison all include rebate programs for chargers installed in multi-family programs. We also appreciate the suggestions provided by the participating utilities that could encourage further enrollment in the multi-family rebates and welcome the opportunity to work with the utilities and the PSC to brainstorm ways to improve participation.

Education and Outreach

Auto Innovators appreciates that all of the utilities' pilot programs include education and outreach. This is a critical element because utilities have an existing and broad network for reaching customers. They also have the right level of information to assist customers in understanding important concepts like home charging set-ups, rates, and advantageous times to charge. By including vehicle telematics in the program, OEMs have the opportunity to promote the program, including the incentive and the TOU rate, to customers during pre-sale and sale.

Auto Innovators thanks the PSC for the opportunity to provide these comments on the Mid-Course Electric Vehicle Pilot Programs. We believe that the PSC and the utilities have important roles in helping Maryland expand EV charging infrastructure, which is an essential piece in growing the EV market. We commend the PSC and utilities for initiating pilot programs and looking for ways to improve them. We look forward to working with the PSC, staff, and the utilities to continue to build out the infrastructure necessary for increased vehicle electrification. Auto Innovators recently released our EV Infrastructure Guiding Principles,³ which look to advance EV acceptance through a set of concise and pointed principles that help guide infrastructure investments and developments, whether under legislative or utility-based processes. The principles

³ <https://www.autosinnovate.org/about/advocacy/EV%20Infrastructure%20Initiative.pdf>


are included as an annex, and we would welcome the opportunity to meet with the PSC to share additional detail around these principles.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Dan Bowerson", with a long horizontal flourish extending to the right.

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The background features a large, light gray semi-circle on the left side, which overlaps with a larger, lighter gray semi-circle on the right. Both semi-circles are filled with a pattern of thin, radial lines that create a sunburst or fan-like effect. The lines are evenly spaced and extend from the center of each semi-circle towards its outer edge.

ANNEX
Alliance for Automotive Innovation
EV Infrastructure Guiding Principles



ACCELERATING THE TRANSITION TO ELECTRIC: EV INFRASTRUCTURE AND CONSUMER ACCEPTANCE

The Alliance for Automotive Innovation (Auto Innovators) recognizes that the future of personal mobility is increasingly electric, and the auto industry will have invested more than \$330 billion by 2025 to reach the goal of an electrified future. All of that is in addition to continued improvements for conventional cars and light duty trucks to address air quality, greenhouse gas emissions and fuel economy.

A new generation of electric vehicles (EVs) is coming, and IHS Markit predicts there will be 130 models for sale in the U.S. market by 2026, up from over 50 models today.¹ These will include battery electric, plug-in hybrid, and fuel cell electric technologies with longer range, more capability, and in different market segments at a variety of price points. Although EV sales amounted to roughly 2 percent of all U.S. vehicle sales in 2020, consumer interest is growing because these vehicles are reliable, efficient, safe, and particularly fun to drive. To realize an increasingly electrified future, a comprehensive plan, as outlined in Auto Innovators' [EV letter to President Biden](#), is needed at all government levels to support a cost-effective, no-compromise experience for Americans.

Despite the significant number of EVs coming to market, consumers are unlikely to buy a vehicle that cannot be conveniently fueled. Although roughly 80 percent of EV charging takes place at home, more options are needed. This includes: affordable and readily available charging and hydrogen fueling infrastructure, easy-to-understand utility rate structures that reward off-peak charging, and improved charging or refueling times. Consumers consider all of these elements before buying or leasing an EV.

The shift to EVs also means expanded roles for utilities, energy regulators, and other stakeholders to create opportunities for new and existing businesses to participate in this clean transformation. With this in mind, Auto Innovators remains committed to partnering with public- and private-sector stakeholders to advocate for policies that create viable business models, attract new capital sources, and stimulate competition and innovation to successfully accomplish this shift.

We are at a pivotal time on the journey to a cleaner, safer, and smarter transportation future. The auto industry is committed to producing EVs. With timely, focused, and sustained leadership and investment from a variety of public and private stakeholders, consumers can fully realize the full benefits of EVs.

¹ Stephanie Brinkley, *IHS Markit Forecasts EV Sales to Reach US Market Share of 7.6% in 2026*, IHS Markit, <https://ihsmarkit.com/research-analysis/--ihsmarkit-forecasts-ev-sales-us.html> (May 28, 2019).



To that end, the Auto Innovators puts forth the following *EV Infrastructure Guiding Principles* to significantly advance EV acceptance and use.

Provide no-compromise mobility for EV drivers and fleets by rapidly scaling up access to charging infrastructure at home and work, around town, and on the highway.

- *EV drivers need access to convenient, accessible, affordable, and reliable charging for their vehicles wherever they live, work, and play. Hydrogen fueling stations need to be built to support fuel cell electric vehicles.*
- *Public and utility investments are needed to help EV charging networks reach a sustainable scale and to ensure infrastructure is available in more challenging settings, including multifamily housing, underserved communities, and rural areas.*

Accelerate the pace of infrastructure deployment through public-private partnerships and collaboration across government entities, industries, and stakeholder groups, and by building on the experience of early-acting states.

- *By working together, we can accelerate infrastructure deployment, fully realize the benefits of transportation electrification, and minimize the cost of this transition.*

Adopt utility rates and programs for EV charging that ensures it is affordable, compensates EV drivers if providing grid services, supports fleet electrification, and enables high-powered charging business models.

- *EV charging should offer drivers cost savings relative to traditional petroleum-based fuels and be designed to encourage charging when the grid is less congested and as renewable energy is abundant.*
- *Utility rate design can make or break the business case for fleet electrification and deployment of charging infrastructure, especially high-powered charging. Utilities and their regulators should address this potential barrier.*

Prepare for timely, cost-effective grid upgrades to support EV charging.

- *EV drivers need to be confident that grid technology is reliable, resilient, and able to accommodate their charging needs.*
- *Collaboration among utilities, automakers, EV charging companies, fleet owners, local governments and others will be critical.*



Ensure that all utility customers, especially those in underserved communities, benefit from transportation electrification.

- *Transportation electrification at scale offers many potential benefits including savings on transportation costs for EV drivers, lower overall energy cost, valuable grid services, lower GHG emissions, and improved air quality around high-traffic areas including fleet depots, ports, and freeways.*
- *Cost savings realized from EV rates and programs should be shared across participating EV owners and other utility customers.*

Adopt building codes that require level 2 chargers in 100 percent of new residential parking spaces at new multi-unit dwellings and single-family homes, and measurably increase the number of new workplace and public chargers based on dwell time.

- *Installing EV chargers during new construction can be five times as cost effective as retrofitting to add chargers.*