

May 1, 2023

Hon. Ed Neilson, Chairman  
House Committee on Transportation  
127 Irvis Office Building  
P.O. Box 202174  
Harrisburg, PA 17120-2174

## **RE: Road Funding and Electric Vehicles**

Dear Chairman Neilson and Members of the Committee:

On behalf of the Alliance for Automotive Innovation<sup>1</sup> (Auto Innovators), thank you for the opportunity to provide testimony to the Committee as it considers the Commonwealth's road funding needs and the appropriate taxation of electric vehicles.

At the outset, it is important to recognize that Auto Innovators' members are committed to the decarbonization of the transportation sector and are working diligently to expand motor vehicle offerings of battery electric vehicles, plug-in hybrid electric vehicles, and fuel cell electric vehicles with ranges, price points, and vehicle types to satisfy all customers' needs. There will be 150 models<sup>2</sup> of electric vehicles for sale in the U.S. market by 2026, up from roughly 90 models today. Globally, automakers have committed to investing \$1.2 TRILLION dollars<sup>3</sup> on electrification through 2030. Our members recognize the pressure this transition – along with the continued rise in MPG ratings of traditional gas/diesel powered vehicles and the increased costs of highway construction generally – places upon state road infrastructure budgets that have historically been funded through state and federal gas tax revenues.

To address this concern, policymakers across the country have been forced to consider avenues outside of a gas tax to recoup revenues that otherwise would have been collected. The three potential revenue streams most commonly identified are: a flat annual registration fee on electric vehicles (EV); a tax based on the number of vehicle miles traveled (VMT) by an EV; or a tax based on the number of kilowatts of electricity (kWh) used to charge an EV.

While automakers were once among the loudest to protest additional registration fees placed upon EV owners, we have now come to believe that such fees are the most responsible path for states to follow. Much attention has been given to pilot programs to study ways to implement both VMT and kWh taxes. From a state's perspective, however, increased registration fees on EVs could be accomplished with little added administrative costs. It would also represent the fastest way to begin collecting revenue, and likely prove to be the most stable source of revenue year-to-year. That is not to say there are not policy considerations around an EV fee that deserve heed – including: challenges for consumers facing a new fee that must be paid

---

<sup>1</sup> From the manufacturers producing most vehicles sold in the U.S., to autonomous vehicle innovators, to equipment suppliers, battery producers, and semiconductor makers – the Alliance for Automotive Innovation represents the full auto industry, a sector supporting 10 million American jobs and five percent of the overall economy. Active in Washington, D.C. and all 50 states, the association is committed to a cleaner, safer, and smarter personal transportation future. [www.autosinnovate.org](http://www.autosinnovate.org).

<sup>2</sup> <https://www.autonews.com/white-paper/here-are-nearly-150-evs-plug-hybrids-headed-us-dealerships-through-2026>

<sup>3</sup> <https://www.autosinnovate.org/posts/communications/The%20Future%20Is%20Electric%20Infographic>

all at once, as opposed modest payments throughout the year like the gas tax; and the limitations to collect road usage revenue from out-of-state drivers who are utilizing the Commonwealth's roadways – but these can be mitigated through thoughtful policy development. Despite these drawbacks, EV fees will prove to be the most appropriate resolution to the funding problems faced by the Commonwealth, given the challenges with implementing both VMT and kWh taxes as discussed below.

While a VMT tax allows for collection of revenues in proportion to that vehicle's use of a public good – which is a basic premise of responsible taxation – the challenges that must be navigated to properly implement such a program far outweigh this one positive attribute. VMT taxes carry a much higher administrative burden on state officials to both correctly set rates and tabulate roadway usage. To avoid legal challenges on the ability of the Commonwealth to apply a tax on miles driven outside the state, monitoring of a vehicle's location in real-time may be necessary, which introduces considerable privacy concerns during a period of heightened attention to government collection of personal information. Additionally, like an EV fee, a VMT tax does not capture drivers crossing through the state from another state. And perhaps, most importantly, VMT taxes are generally disliked by the general public. In a survey<sup>4</sup> conducted by San Jose State University, roughly 61% opposed the idea of taxation based on miles traveled, with the highest cohort (40%) in the “strongly oppose” category. As the auto industry pushes toward a more electrified future, we have great concern that such a tax applied only to alternately fueled vehicles will add a substantial disincentive to consumers considering an EV purchase.

Shifting to kWh taxes, on a cursory review there are numerous arguments to support the adoption of such a tax. First off, it is most akin to the current gas tax, where consumers pay a tax on the volume of fuel used. It would also present some proportionality to amount of road usage by that vehicle and it would capture out-of-state drivers if they stop to charge within the Commonwealth. If one digs a bit deeper, however, it becomes clear that the problems with a kWh tax lie in the proper administration of the tax structure. To effectively apply this tax in a residential setting, the electricity used to charge an EV must be segregated from electricity used for other household purposes. There appear to be two ways to accomplish this, either through the installation of a sub-metered electrical panel in the home or through the use of a network-connected charging system. Both of these options would add to the already considerable costs consumers face when installing a home charger, and asking consumers to pay more up front just to aid the government's collection of tax revenue is unlikely to be well received. While a networked-connected charging system may be more of a viable option in the future, a very limited number of home chargers currently installed carry this capability, forcing early-adopters to pay to reinstall an updated system. Some have postulated that EV would be able to track charging information in the future. If onboard systems were utilized to apply a tax, however, it would again introduce all of the privacy challenges around GPS monitoring to offset out-of-state use as discussed above. Finally, given the lack of network-connected or sub-metered charging systems today and the changes that would be necessary at every electric utility in the state, this option for taxation probably has the longest delay before the Commonwealth would receive any considerable revenues.

In light of the above considerations, Auto Innovators members now support reasonable annual fees on EV owners to support the maintenance of roadway infrastructure. Additionally, we support the application of a kWh tax on the high-speed charging infrastructure (known as Level 3 or DC Fast Chargers) being installed along highway corridors to capture out-of-state drivers who are transiting Commonwealth roadways. We do not, however, support the application of a kWh tax on all non-residential chargers, as chargers at workplace or retail/grocery stores will be typically utilized by state residents who will already be paying an EV fee.

---

<sup>4</sup> <https://transweb.sjsu.edu/sites/default/files/2208A-Agrawal-Nixon-Public-Opinion-Federal-Tax-Options-Transportation-Survey-Toplines.pdf>

As the Commonwealth considers how to calculate a reasonable EV fee, we would offer a few ideas for consideration. First, to avoid the fee being a disincentive to the purchase of a new EV consider applying the fee at the time of reregistration, not the initial registration. The state collects far more in sales tax on an EV sale than it does from any possible EV fee. Secondly, while natural instinct would be to do a simple calculation based on average miles traveled and average fuel economy, it is important to recognize that EV buyers are probably transitioning from another high MPG vehicle. A more apt calculation is based on similar situated vehicles or hybrids, or else a vehicle owner may be paying more in an EV fee than they otherwise may have paid in gas tax with their previous vehicle. Finally, as the adoption of an EV fee would be new and unexpected for most consumers, consider a phase-in period over a few years – perhaps 50% fee for 2 years; 75% fee for 2 years; and finally, 100% fee thereafter. While we do not suggest EV owners should get a free ride, we are very sensitive to a public perception that EV owners are being punished with a new fee that drivers of traditional drivers do not pay, and the possibility that such perception could holdback sales of this growing technology.

Thank you for your consideration of our views. If I can provide any further information, please feel free to contact me at [wweikel@autosinnovate.org](mailto:wweikel@autosinnovate.org).

Kindest regards,



Wayne Weikel  
Vice President, State Government Affairs

cc: Members, House Committee on Transportation