## Senate Transportation: PennDOT Funding, Electric Vehicle Update

Chairman Langerholc, Chairman Flynn, and members of the Transportation Committee, thank you for the opportunity to discuss the status of transportation funding, new investment opportunities, and ongoing trends and challenges we look forward to collaborating on.

Pennsylvania has traditionally approached vehicle fees from a perspective of keeping these fees to "access" the system low to decrease barriers to using our network. A higher mandatory cost up front (like a registration fee) affects people differently than a fee based on how much they drive, over which they have more control.

Similarly, most of our highway and bridge transportation-funding model has been structured as "pay as you go"/pay for what you use. In PA, this has historically relied on the gas tax.

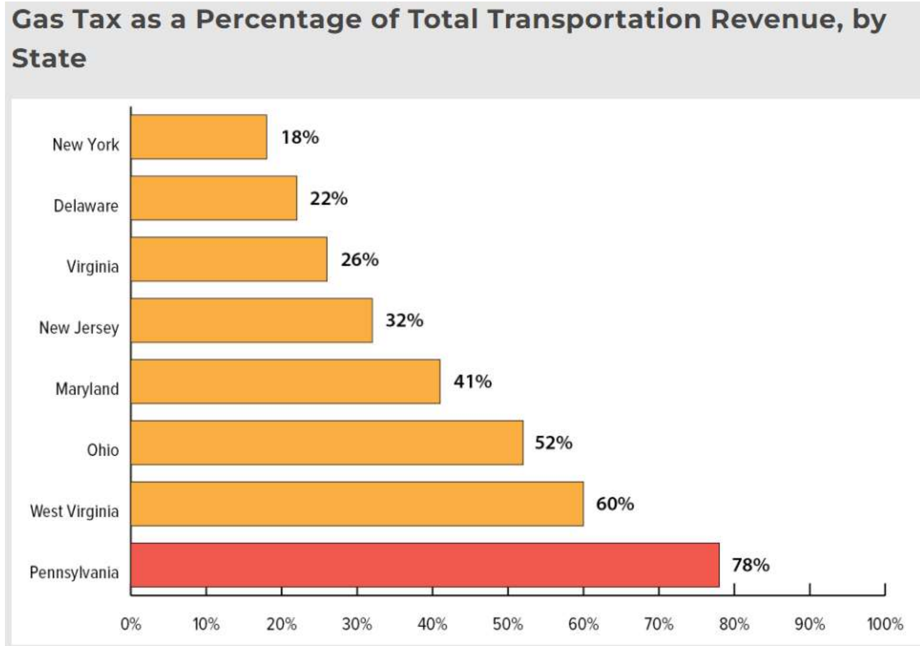
### Status and Reliability of the Motor License Fund, State Gas Tax

Pennsylvania's fuel tax is assessed at the wholesale level, not at the pump. Gas prices are set by the industry, and how and whether taxes are passed on to consumers at the pump is their decision. The tax rate is set based on a calculation of the average wholesale price (AWP) of fuel over the previous 12-month period multiplied by the millage rate set by Act 89 of 2013, which was signed into law during the Corbett Administration. Due to the significant increases in fuel prices during 2022, the AWP increased from $1.92 in 2022 to $3.17. This was the first time the AWP has been above the $2.99 statutory floor since that went into effect in 2017, per Act 89.

As a result, the cents per gallon rates for 2023 increased from 57.6 cents per gallon for gasoline to 61.1 cents and from 74.1 cents per gallon for diesel to 78.5 cents. This increase in tax rates will increase the revenue collected, although overall collection may fall because consumption is below where it was projected to be a year ago. Forecasted collections for the two fiscal years impacted by this increase combined (FY 2022-23 and FY 2023-24) are approximately $50 million lower than they were forecasted to be in last year's Governor's Executive Budget, which was not projecting an increase in the tax rates.

Ultimately, this means that the increased fuel tax rates will be partially offset by the decrease in fuel consumption, which leads to less funding available for Pennsylvania's vast transportation network. In addition to these year-to-year decreases, Department of Revenue gasoline and diesel consumption data illustrates that our gas tax is becoming a less reliable source for funding the commonwealth's roads and bridges. **The peak for gasoline consumption in the state was in 2003-04, and the peak for diesel was in 2006-07**. Vehicles' fuel efficiency and driving patterns affect this consumption – since 1992, the highest recorded vehicle miles traveled on Pennsylvania roadways was in 2007-08 and the trend towards more fuel-efficient cars in the years since then have since reduced gasoline consumption.

Additionally – as demonstrated in the following figure from the July 2021 *Transportation Revenue Options Commission (TROC) Report* – **compared to neighboring states we are far more vulnerable** to changes in this funding source.




We are grateful that President Biden signed the Infrastructure Investment and Jobs Act (IIJA) – or the Bipartisan Infrastructure Law (BIL) – in 2021. Over five years, the BIL will bring $4 billion in new federal highway and bridge funds to Pennsylvania. This includes $1.6 billion in a new funding stream specifically for bridges. We must have stable and sufficient state funding to leverage these federal dollars. Federal funding is reimbursed, so we must first spend state dollars to get the federal ones, and federally funded projects usually require a 20-percent state match. We expect we will need approximately $991 million in additional state funds over five years to match this funding and as of today, **we still need $442 million in these matching funds** via additional revenues or legislative appropriations. The additional discretionary programs also require additional state or local matching dollars.

## BIL National Electric Vehicle Infrastructure (NEVI) Formula Program

As part of the BIL, PennDOT will receive and distribute $171.5 million in federal formula funds for electric vehicle (EV) charging infrastructure over the next five years. For the Round 1 funding, PennDOT has advanced appropriations of $25.4 million for federal fiscal year (FFY) 2022 and $36.5 million for FFY 2023. Some of this amount may be used for labor & workforce training, planning, outreach, and program management as allowed by NEVI guidelines. Approximately $56 million is anticipated to be available for applicants. The PA NEVI grant program is a reimbursement grant program and applicants are required to provide a minimum 20% match.

Funds for the PA NEVI grant program are to be awarded on a competitive basis to plan, design, construct, operate, and maintain EV Station Infrastructure sites across Pennsylvania.

The NEVI grant funding supports the commonwealth and federal goal of expanding EV charging along the previously designated Alternative Fuels Corridors (AFCs) and Interstate lookalikes. Pennsylvania has over 1,800 miles of Electric Vehicle AFCs. AFCs are targeted locations to build out fast-charging EV and alternative fuel stations to support drivers' needs for reliable long-range and employment-related travel. Per the guidance from U.S. DOT, NEVI formula funds must first be used to "build out" designated AFCs (no more than 50 miles between stations and less than 1 mile from an exit) and meet U.S. DOT minimum standards and requirements.

The PA NEVI grant program includes multiple rounds of funding. During Round 1, the focus will be on building out the AFC network along the interstates to meet the NEVI requirements.

PennDOT's Round 1 Notice of Funding Opportunity for the NEVI Formula Grants Program is available on **PennDOT's Apply for NEVI Funds webpage.** Funds for FFY 2022 and 2023 PA NEVI grant program are to be awarded on a competitive basis to plan, design, construct, operate, and maintain Electric Vehicle Supply Equipment sites across Pennsylvania. **PennDOT is now updating the National Electric Vehicle Infrastructure (NEVI) Round 1 Notice of Funding Opportunity (NOFO) to adopt the final federal rulemaking that was announced on February 15, 2023. The updated NOFO will be released March 13, 2023. PennDOT will begin accepting applications for Round 1 of the NEVI Grant Program on Monday, March 27, 2023. The application deadline will be 5:00 PM EDT on May 5, 2023.**

Building out this charging network not only complements climate goals, but also supports the small but growing number of drivers using EVs. Combined with gas-tax revenue trends demonstrated in previous years and recently magnified by the pandemic, PennDOT has been reviewing and collaborating with stakeholders on identifying reliable transportation-funding options for our multimodal transportation system. Through PennDOT Pathways – launched in 2020 – potential options are continually identified and evaluated in conjunction with the completed TROC study's findings. One of the identified options that continues to be studied internally and with multi-state efforts is a Mileage-Based User Fee/Road-User Fee (MBUF/RUF).

### Market-Driven Revenue Trends

Pennsylvania and other states are increasingly focused on MBUF/RUF options due to rapidly changing market and consumer choices with vehicle types. With recent advances in fuel efficiency and the increasing popularity of alternative fuel vehicles, gas-tax revenue is trending downward and is expected to continue to do so in the long term. In PA, the number of registered battery EVs increased considerably between December 2021(23,487) and January 2023 (63,931).

Moreover, automobile manufacturers are committed to offering fully electric fleets soon. There are several examples of how this industry conversion goes beyond passenger vehicles:

- Amazon committed to putting 100,000 electric delivery vehicles on the road by 2030.
- UPS ordered 10,000 electric delivery trucks in 2020.
- By 2025, "50% of FedEx's parcel pickup and delivery vehicle purchases are intended to be electric."
- The United States Postal Service expects to acquire at least 66,000 battery electric vehicles between now and 2028.
- The US Department of Energy (DOE)'s renewable energy laboratory released a study showing that by 2030, nearly half of medium- and heavy-duty trucks will be cheaper to buy, operate and maintain as zero emissions vehicles compared to traditional diesel-powered combustion engine vehicles.

Recognizing these market realities, some states have explored implementing fees on electric or hybrid vehicles to help ensure all users are contributing to the transportation network. Pennsylvania, along with 17 other states, already tax the electricity used to charge an EV as an alternative fuel. Under the provisions of Act 3–1997, alternative fuels used to propel vehicles on the public highways are subject to the Alternative Fuels Tax (AFT) effective October 1, 1997. Enabling legislation is Chapter 90 of Title 75 (the Vehicle Code) of the Pennsylvania Consolidated Statutes. Alternative fuels include natural gas, compressed natural gas (CNG), liquid propane gas (LPG), liquified petroleum gas, alcohols, gasoline-alcohol mixtures (at least 85 percent alcohol by volume), hydrogen, hythane, electricity and any other fuel not taxable as liquid fuels or fuels.

- Alt. fuels tax rates are based on the energy equivalent of a gallon of gasoline which is statutorily set at 114,500 Btu. Electricity converts to 3,414 BTU/ kilowatt hours (kWh).
- The AFT is determined on the "gallon-equivalent-basis" of the oil company franchise tax.
- As of January 2023, the oil company franchise tax on a gallon of gasoline is $0.611. The current alt. fuels tax rate for electricity is $.0183/kWh.

While this fee has already been implemented in Pennsylvania, there are some challenges in its enforcement. There are currently no systems in place dedicated to measuring kWh of electricity used to charge a plug-in electric vehicle (PEV) for the purpose of calculating and reporting AFT. While most public chargers are connected to a network and track data, such as kWh used and number of charges, it is estimated that up to 85% of personal EV charging will occur at home on non-metered chargers. Without the installation of a sub-meter specific for EV charging at the home, the EV owner is responsible for tracking and reporting the total kWh used for charging their EV, and then calculating and paying tax on the kWhs used, which is a time-consuming proposition.

In addition, EV chargers are increasingly being installed at workplaces, shops and restaurants. Depending on the ownership structure and charging station technology, there could be different measurement, payment, and electricity source models at each of these locations. Some stations charge by the kWh, some charge by length of time an EV is connected, and some do not charge the user at all. While most standalone charging stations have dedicated electrical feeds, some charging stations are powered through the host businesses' electricity and would require an additional meter to measure the electricity used specifically for vehicle charging.

To illustrate the complexity of administering the payment of this tax, as of January 2023 there were 41,567 EVs and 22,364 Plug-in Hybrid Electric Vehicles (PHEVs) in the Commonwealth. But as of December 2022, there were 53 AFT accounts for electricity (42 of which were automotive dealerships) statewide. An "account" indicates a registered entity or individual, not the number of chargers or plugs operated by the registered entity/individual. AFT revenue totaled $312,403 in FY 2021-22. If AFT was collected on all miles traveled using electricity, an estimated $2.5 million would be collected in FY 2022-23.

One logistical challenge has been accurately identifying a vehicle's fuel-type during the registration process. PennDOT has made and will continue making progress on solving this problem. The ongoing VIN Decoding initiative seeks to eliminate self-reporting inaccuracies by using the manufacturer's VIN number to provide detailed fuel-type information. Increasing the accuracy of this data will allow for more targeted communications with EV owners and facilitate compliance with the Alternative Fuels Tax. Additionally, PennDOT is in the middle of a comprehensive technology systems overhaul, known as the Motor Vehicle and Driver Licensing

Solution, that will integrate existing data silos, facilitate better data collection and analysis, and enhance our ability to deliver innovative customer service solutions across the department.

PennDOT is actively working with the Department of Revenue to improve the MyPATH user experience, facilitate individual EV owner registration, and ultimately increase AFT compliance.

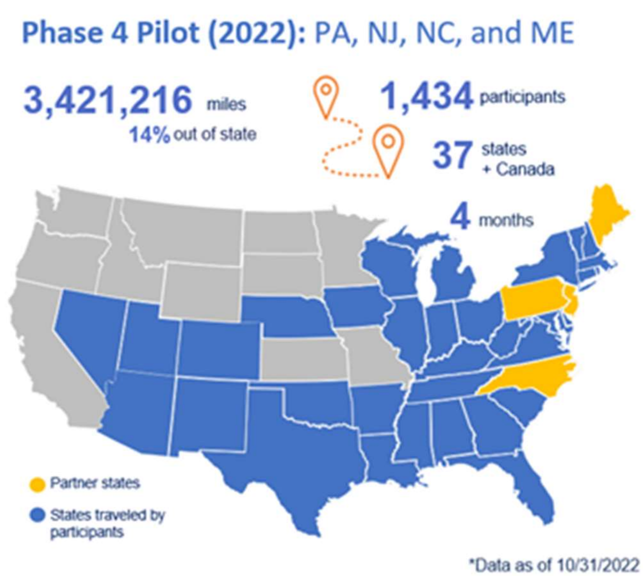
## Research Partnerships and Public Education

To explore potential funding options—and contribute to the national conversation on the subject—PennDOT, in partnership with The Eastern Transportation Coalition (TETC), a coalition of 17 states and Washington, D.C., is working to better understand how drivers view a range of alternative funding mechanisms and their impacts. PennDOT has also joined RUC America, a consortium of 17 primarily western-U.S. states.

PennDOT has participated in numerous TETC studies and surveys over the past several years as the agency assesses the potential benefits and drawbacks to Pennsylvanians of different models. For TETC's state passenger vehicle pilot, more than 500 Pennsylvanians participated voluntarily, along with drivers from Delaware, New Jersey, and North Carolina.

While much of the focus has centered on EV or alternate-fuel vehicles, all types of drivers and vehicles need to be carefully considered. In its partnership with TETC, Pennsylvania focused on rural drivers, logging 226,267 miles over four months with over 14 states traveled.

PennDOT also has been participating in TETC pilot programs to learn about the unique perspective and needs of the trucking industry in relation to alternative transportation funding policies. The multi-state truck pilots show that one rate for all trucks does not work because of the vast differences in vehicle operations, types, ages, performance, and mileage travelled. Sharing results from these pilots and further ongoing studies, and highlighting key differences between trucks and passenger cars could help reduce misinformation about motor carriers and help the industry to craft an eventual approach to MBUF that considers all interests.




For example, another pilot program that PennDOT is engaged in is a Phase 4 Pilot examining the best way to enable MBUF technologies for commercial trucks. The study has 1,434 participants and looks at four types of measurement devices (plug-in with and without GPS, manual options, and vehicle telematics) over 3,421,216 miles, in 37 states plus Canada. The results will help to determine which type of device is the most useful for a variety of trucks over specific distances.

In addition to technical studies as part of the coalition partnership, the department continues to conduct extensive public education. The department's transportation funding website for PennDOT Pathways – www.penndot.pa.gov/funding – outlines the funding situation and potential options that have been studied, including MBUF/RUF. For example, the public can use a MBUF vs Gas Tax calculator to enter their personal vehicle and mileage information to simulate their potential costs if the state gas tax were replaced with a mileage-based model.

As described here today, PennDOT is currently engaged in intensive study of different avenues for addressing the declining revenues from the gas tax. Given that ongoing work, PennDOT believes it is too early to settle permanently on what approach will work best for Pennsylvania.

There are many potential ways to sustainably and fairly ensure that all vehicle users are contributing to maintaining our roads and bridges. No other state has yet implemented a final comprehensive solution, and PennDOT believes that it would be premature for Pennsylvania to do so without considering the wider context of incentivizing EV adoption and ensuring that statewide charging infrastructure continues to expand to support growing EV needs. We look forward to recommending sensible solutions based on the data still being gathered today. Furthermore, we stand ready to collaborate with you on the important mission of adequately funding and modernizing our transportation system.
Beyond our discussion of vehicle types and revenue trends, we look forward to working with you on another measure to ensure roadway users' dollars are being used on our roads and bridges. As you know, Governor Shapiro proposed a new Public Safety and Protection Fund in his budget address earlier this week. We urge the General Assembly to embrace this important step to decouple support for the State Police from the Motor License Fund so we can ensure sustainable funding for public safety while investing more in our roads and bridges.

Thank you for the opportunity to testify today.