



**Testimony of Advanced Energy United
Pennsylvania House of Representatives Consumer Protection, Technology, and
Utilities Committee
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On behalf of Advanced Energy United (“United”), I want to thank Chairman Matzie, Republican Chairman Marshall, members of the committee, and staff for inviting testimony on the issue of electric vehicle (EV) infrastructure. United is proud to support commonsense policy that would ensure Pennsylvania’s utilities are developing transportation electrification plans and proactively planning for the transportation electrification transition. Such a policy would both strengthen the state’s grid resilience as more EVs come online and protect Pennsylvania electric ratepayers.

United is a national business association, dedicated to educating and advocating for policies that empower our member companies to lead the transition towards a cleaner, reliable, and affordable energy economy. We represent over 100 businesses working across the energy sector, including large-scale and distributed renewables, geothermal, energy storage, energy efficiency and demand response providers, transmission developers, EV manufacturers, and charging infrastructure providers.

The transition to EVs is not a distant future scenario, but an ongoing reality here in Pennsylvania. Major automakers, including General Motors, Ford, Nissan, and Honda, have all committed to transitioning most or all of their vehicle offerings from gas-powered to electric within the next 20 years. By 2030, Pennsylvania is expected to have approximately 750,000 passenger light-duty EVs on the road. Currently, EV sales are increasing, with light-duty EVs constituting a record 12% of the market share in December 2023.

Unfortunately, Pennsylvania is still well behind the curve in preparing for transportation electrification. We've seen many of our neighbors prioritize the buildout of transportation electrification infrastructure, with New Jersey investing \$265 million, Maryland investing upwards of \$55 million, and Ohio investing over \$11 million. In addition, numerous states across the country have enacted legislation to require electric utilities to submit transportation electrification plans, including Colorado, Illinois, Nevada, New Mexico, Oregon, and Washington. As a result of enacting legislation by these states, their electric grids will be more prepared for EV load growth and protect ratepayers through proactive planning for increased transportation electrification. Proactive planning through transportation electrification plans can put downward pressure on energy prices, leading to lower energy bills and a minimized impact on the average ratepayer. To date though, Pennsylvania has not passed any policy to ensure that utilities are submitting transportation electrification plans, and thus, we are falling behind other states in preparing for the inevitable.

As mentioned, United represents several companies directly involved with the transition to EVs. One concern that many companies involved in this transition have whether the electric grid will be ready to support the increased load needed for electrified transportation. To illustrate, for a company to electrify a truck depot that currently fuels up diesel trucks, with enough electricity to charge up multiple electric tractor trailer trucks, would be nearly the equivalent of putting a sports stadium's worth of electricity demand where that one depot used to be.

To make that work and ensure that electrified truck depot can get the power it needs on a timeline that works for their business and without causing unnecessary grid issues, electric utilities in Pennsylvania need to be proactively planning. This includes forecasting for EV adoption in their service territories and determining where charging stations are likely to be built in the near term. It also includes forecasting where their distribution systems will need upgrades to handle the increased load resulting from transportation electrification, as well as setting new rate plans for ratepayers that encourage EV drivers to charge at optimal times to help distribute that increased load.

Rep. Joe Webster introduced HB 1240 to ensure Pennsylvania is hitting on these goals of preparing the electric grid for the transition to electrified transportation and ensuring that ratepayers are not unduly burdened in the process. This legislation would



set up a transportation electrification planning framework, instructing the state's electric utilities to develop transportation electrification plans in conjunction with Pennsylvania state agencies and other interested stakeholders. These plans will evaluate the reliability and resiliency of the utility's transmission and distribution networks, analyze the rate structure for the utility's ratepayers, and ultimately provide solutions to prepare for the transition. Simply put, the legislation is not about the EV chargers or infrastructure themselves, but rather the electric grid behind the chargers, and ensuring that utilities plan for this transition properly to get the grid ready to power those chargers. Additionally, the goal of this legislation is not to incentivize or require electric utilities to own and operate their own EV charging stations.

If HB 1240 is enacted, electric utilities in Pennsylvania will have one year to develop their plans. In the development of transportation electrification plans, utilities must consult with key stakeholders who understand the energy and transportation landscapes of the region, including the Pennsylvania Department of Transportation (PennDOT), the Pennsylvania Department of Environmental Protection (DEP), local transit agencies, and metro or rural planning organizations. Under this legislation, the plan would be updated after five years to account for new changes in the state of transportation electrification and Pennsylvania's energy landscape. Finally, the entire process by which utilities are developing plans will be overseen, reviewed, and approved by the Pennsylvania Public Utility Commission (PUC), with the goals of ensuring grid reliability, adequate charging infrastructure for Pennsylvania's EV drivers, and consumer protection through the mitigation of increasing rates.

According to a report by Synapse Energy Economics, nearly 1 in 10 vehicles in Pennsylvania will be electric by 2030 – just six years away. This of course represents a near-term and rapid increase in the electric demand that will be needed to power these vehicles. Unfortunately, Pennsylvania's electric utilities have not been building out their grid infrastructure and evaluating their rates at the pace at which this transition will require. While some utilities in the state have implemented pilot programs, there is a lack of significant transportation electrification planning at any of the state's utilities. To achieve the level of grid reliability that Pennsylvania will need as a result of increased transportation electrification, the Pennsylvania General Assembly must pass legislation to authorize the PUC to ensure utilities are conducting this proactive planning.



The study evaluated the expected increase in annual transmission, distribution, and generation capacity costs without alternative rate designs for each utility in Pennsylvania. As shown in the table below, without proper planning and rate evaluation as more Pennsylvanians make the transition, the total price tag increase sits at just over \$85 million.

| Utility | Transmission Capacity | Distribution Capacity | Generation Capacity | Total Capacity Costs |
|-------------------|-----------------------|-----------------------|---------------------|----------------------|
| Duquesne Light | \$1,640,000 | \$850,000 | \$1,850,000 | \$4,340,000 |
| Met-Ed | \$1,840,000 | \$5,130,000 | \$2,230,000 | \$9,200,000 |
| Penelec | \$1,760,000 | \$2,670,000 | \$2,210,000 | \$6,640,000 |
| PPL ⁵⁴ | – | \$20,230,000 | \$5,650,000 | \$25,880,000 |
| PECO | \$5,270,000 | \$22,350,000 | \$7,030,000 | \$34,650,000 |
| West Penn Power | \$17,000 | \$2,270,000 | \$2,260,000 | \$4,547,000 |
| Total | \$10,527,000 | \$53,500,000 | \$21,230,000 | \$85,257,000 |

Source: https://www.puc.pa.gov/media/2338/synapse_energy_economics_study_report_maximizing_benefits_of_transportation_electrification_in_pa032423.pdf

The good news is that we can prevent these rate increases and potential grid reliability issues with effective and proactive planning by the PUC and the state’s utilities. United and our members want to see Pennsylvania take a smart, efficient, and effective approach to the state’s transition to electrified transportation.

For the reasons listed in this testimony, United encourages this committee and the General Assembly to explore a common-sense approach for the Commonwealth that will put the Keystone State in line with its neighbors in effectively planning for the future. If you should have any questions or concerns, please do not hesitate to contact me at nbibby@advancedenergyunited.org or 717-331-9348.

