



**Engineers Labor-Employer Cooperative**  
The Labor-Management Fund of Operating Engineers Local 825  
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**Subject:** EV Infrastructure Ecosystem

All New Jersey residents deserve access to clean, reliable and affordable energy and a safe environment for this generation and all that come after. In order to meet our EV charging infrastructure goals, New Jersey's energy portfolio must contain more diversity than wind and solar because reliability is crucial to meet the demand EV's will put on the electric grid. The currently simply ignores all reliability factors. Concurrently, we must be cognizant of the post COVID-19 economic conditions facing our residents as current policy provides tax and fair-share payment holidays for electrical vehicle owners as they do not pay sales tax, do not pay into the transportation trust fund for maintenance and roadway repairs, and owners receive a tax benefit. Regressive policies such as EV tax amnesty place an undue burden on the very low-income and environmental justice communities these policies are striving to help.

We support investments in all types of energy infrastructure that expands capacity, reduces emissions, increases reliability and lowers costs for residents and businesses as these are the principles that our organization respectfully requests consideration for in expanding our State's EV Infrastructure.

The Engineers Labor-Employer Cooperative is a labor-management trust that represents the combined interests of the nearly 7,200 members of International Union of Operating Engineers Local 825, and the signatory union contractors who employ them. As a multi-state organization, ELEC focuses on promoting economic development and advocating for investments in infrastructure -- not only to provide work opportunities but to ensure that our members, contractors and their families, have the quality of life they deserve as residents of New Jersey.

IUOE and contractors invest millions annually, host and operate two state-of-the-art training campuses and are making significant advancements and investments in STEM higher education for our members to keep up with equipment technology, software and hardware, internal computers, GPS and other advanced features, which will be required to build the energy of the future. As we plan the energy mix of the future, it is critical to keep in mind that organizations

like ours have already begun putting the pieces in place to ensure our membership is up-to-date and ready to work.

In order to achieve the EV goals outlined in the Energy Master Plan, New Jersey requires a diverse and reliable energy portfolio as well as more affordability to the end user. Installation of EV charging infrastructure must be done strategically with smart investments that provide value for the taxpayer, ratepayers and incentivize utilities to innovate and invest private sector capital into EV infrastructure that benefits the public.

For New Jersey to become a leader in EV's, our state must invest in energy storage, transmission systems, and other measures that will improve and modernize the energy grids for the challenges that are facing today, as well as in the post COVID-19 economy, before we can handle the energy load these vehicles will have on the grid.

Today, consumers still suffer from "range anxiety" with electric vehicles. Although adding charging stations along routes will help to mitigate this anxiety, charging is not instant and requires time, leaving consumers waiting at a location until their vehicle has been "fueled". Even with the introduction of direct current fast charging (DCFC), there are still problems that exist with rapid charging. Studies have shown rapid charging can have a damaging effect on EV batteries. According to a recent study by the University of California-Riverside, fast charging adversely impacts the lifespan of lithium-ion batteries, further reducing their capacity beyond their estimated 10-year life cycle. This may also make these batteries obsolete for their second phase of life, as usage for energy storage on the grid. In addition, rapid charging will cause high loads on the grid during peak traffic hours and load times, increasing variability and uncertainty in areas where the grid is already vulnerable.

Current maps of EV registrations in New Jersey shows most EV's are registered in locations directly outside of metro areas and where median incomes are higher. Those that will benefit from the charging stations will be those that can afford this new technology while our already struggling residents will be picking up the tab through higher rates.

It is important to note that the economic impact of the COVID-19 pandemic will have a costly impact on New Jersey's residents and our state budget for years to come. Upgrading to EV's and residential upgrades associated with home charging, even with the incentives offered to purchase these vehicles, will not be an affordable option for families in New Jersey. With pre COVID-19 stats showing nearly 37% of NJ residents not being able to afford basic needs like housing, childcare, food, or healthcare, it is likely in a post-COVID-19 world, that percentage is much higher. Many New Jersey residents will not have the necessary resources to upgrade to an electric vehicle. In fact, the Rocky Mountain Institute's own EV-Grid Integration report shows

the installation costs alone are astronomical: “costs for charging infrastructure components ranged from \$2,500 up to \$7,210 for a Level 2 commercial charger and from \$20,000 up to \$35,800 for a 50-kilowatt DC fast charger.” None of these costs take into account the additional electric generation that will be required to power these chargers.

In addition to the infrastructure costs that we know about (RMI also reported that ‘EV soft costs are very hard to quantify and almost entirely undocumented’), we must also take total cost into account. Currently there are 30,000 EVs in NJ, which results in over \$5 million for the Transportation Trust Fund to repair roads and bridges that is not being collected. If we extrapolate to 330,000 EVs, that leaves a gap of more than \$55 million to the TTF not being collected.

Electric vehicles are also exempt from the paying sales tax (6.625%). Of the 30,000 EVs currently registered in NJ, assume that the average price is \$55,000. That is \$3,643.75 per car that isn’t paying the sales tax. At 30,000 cars that’s \$109 million in sales tax revenue that has been forgone already at a time when NJ is proposing to borrow over \$14 Billion just to pay our bills. If we play this scenario out, \$695 million in sales tax revenue by 2025 or \$139 million per year this committee will have to generate elsewhere to offset the loss. The numbers just don’t add up well for NJ residents and taxpayers.

Thus, we must allow EV infrastructure investments and upgrades to happen organically. Although we applaud the lofty goals of reaching 330,00 EV vehicles on the road by 2025 and 3 million by 2035, our long term financial recovery will prevent consumers from investing in these vehicles and the EV infrastructure that is being labeled as critical today, will be underutilized tomorrow.

Public private partnerships are the most efficient way for our State to meet their EV infrastructure goals. Encouraging private investment will reduce the financial impact these costly upgrades would have on the state budget.

## **Conclusion**

In order to build New Jersey’s EV infrastructure while reducing the cost on the state and our most vulnerable residents, we must utilize private investments and build this infrastructure gradually in order to reduce the financial impact on our residents and businesses.

Thank you for the opportunity to submit these comments.