

BPU Medium and Heavy Duty EV Ecosystem Straw Proposal: Impact on Overburdened Communities

Unitarian Universalist FaithAction is a faith-based organization. Our faith is based on seven principles, including “justice, equity, and compassion in human relations” and “respect for the interdependent web, of which we are a part.” Because of these principles, we are greatly concerned with the impact of human activity on the natural world and also on individuals, especially those with less income and less power, such as those in overburdened communities.

We must minimize pollution in heavily populated areas and overburdened communities. This requires not only electrifying vehicles but also minimizing their presence in these communities. They have a direct impact on the social, economic and environmental welfare of these people.

Converting the enormous fleet of medium and heavy duty trucks in New Jersey from diesel to electric will benefit all inhabitants of New Jersey and especially residents of overburdened communities. It will reduce nitrogen oxide, carbon monoxide, hydrocarbon and volatile organic compound emissions. These reductions will reduce respiratory illness and premature deaths, especially from the enormous and growing scourge of asthma. Reduction of environmental stresses will reduce cumulative impacts from the combination of environmental, financial, and social stressors in overburdened communities. Truck and fleet owners would see savings in operating and maintaining zero emissions trucks during their overall lifespan. Building infrastructure will create new, high-paying jobs, both in generating and storing electricity and in charging vehicles.

However, replacing diesel engines or switching from fossil fuels to all renewable electricity do not address all forms of pollution from medium and heavy duty trucks, and in one key metric will do little to mitigate poor air quality. Total PM₁₀ and PM_{2.5} particulate emissions have been found to be similar to those of ICEVs (Internal Combustion Engines), in large part due to increased weight of EVs (which is expected to decrease over time) and the production of PM emissions from non-exhaust sources, especially brakes and tires. This may even be worse for heavier vehicles (<https://www.oecd-ilibrary.org/sites/4a4dc6ca-en/index.html?itemId=/content/publication/4a4dc6ca-en>). Policies designed to reduce production of particulate matter need to be investigated and put into practice where possible.

In addition, conversion to electric vehicles will increase the load on power plants. If fossil-fuel fired electric generating plants, like natural gas and especially coal, must be brought on-line to produce the electricity, this will also damage overburdened communities. It is essential that we convert electricity to all renewable fast enough to produce the additional electricity required by electrification of vehicles. This may require coordination between state agencies.

One approach to electrification being offered is to place charging stations in overburdened communities to motivate more electrification there. However, in addition to increasing the number of e-trucks in these communities, this could necessitate an increase in the number of e-trucks coming into overburdened communities solely for recharging and thereby increase particulate pollution. We urge the BPU to consider many options in supporting the charging infrastructure that would keep trucks out of overburdened communities to the extent feasible, including housing charging at destination points (e.g., at warehouses or fleet facilities outside overburdened communities). Incentives that support building charging infrastructure outside of overburdened communities might also reduce truck traffic in them.

Given that funding is always limited we suggest the BPU clearly prioritize which transportation sectors receive incentives, assistance and resources first. Zero emissions school buses will impact all New Jersey's children, with a special emphasis on busing in overburdened communities, and should be the top priority: studies show the acutely poor air quality in and around diesel buses, especially when loading and unloading passengers; school buses are a common denominator of a large sector of children between 4 and 18 years of age; and asthma rates, highly impacted by air quality, are at exceedingly high levels in overburdened communities. Public transit, with its high user rate in overburdened communities, should be a second priority: bus routes lie on the periphery, as well as through, overburdened communities; electrifying NJ Transit's fleet can have significant impact on improving air quality within communities.

We applaud the growing partnerships, collaborations and awards that put level 2 charging stations, used primarily for light vehicles, in overburdened communities, thereby facilitating the use of EV cars and light trucks in those communities and piloting uses that decrease many emissions, put more agency in the hands of communities, and support growing economies. We urge the BPU, and the DEP, to continue developing incentives and partnerships that increase medium and heavy-duty EV's on New Jersey's roadways. However, we ask that in developing the charging infrastructure that all factors and consequences be viewed through a lens of reducing pollution and cumulative impacts as much as possible in already-overburdened communities.

On the subject of rates, the rate counsel did not include an estimate of health-care costs in the cost-benefit analysis, although pollution increases higher health care costs. We believe that health care costs and the reductions in lifespan and quality of life due to poor health are so important that it is unforgivable to ignore these. If for no reason other than health, we must minimize pollution in heavily populated areas. This requires not only electrifying vehicles but also minimizing their presence in heavily populated areas.

In sum, we believe the following are crucial in making decisions while building the infrastructure for a zero emissions transit fleet at all possible speed:

- Consider all associated impacts on overburdened communities - health, air quality, economic - especially unintended but collateral consequences
- Ensure that building out increased electricity demand and supplying charging for ZEVs does no further harm to overburdened communities - that all decisions mitigate existing damage
- Prioritize funding, with school buses and public transit in overburdened communities being the first to benefit from conversion to ZEVs
- Incentivize acquisition and innovation in the private as well as the public sector to maximize benefits

Thank you for considering our concerns.