From: R W
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NJ Board of Public Utilities
To whom it may concern,

My comment on the Draft Plan follows:

Reduction of greenhouse gas emissions on a "vehicle miles traveled" basis for existing public transit is a hopelessly blinkered view of where transportation GHGs come from. The best motor vehicle trip from a climate and economic perspective is one that is not taken at all. This is possible when walking and biking are options, and that is made possible when, at a minimum,

A: Safe infrastructure exists for these modes

B: Distances between destinations are human-scale

Therefore, it would make more sense to eliminate parking space minimum requirements which both encourage driving and also discourage non-driving modes, by increasing distance between everything. New Jersey can also legalize denser housing and expedite its permitting. People not able to live in dense housing options with strong transit in New Jersey are forced to move elsewhere, typically to higher-emission lifestyles which require more driving. Eliminating these barriers can be done immediately and requires no public money whatsoever.

The state should expand and strengthen the Transit-Oriented Communities program with broad overrides to local zoning that totally eliminate parking requirements. The state should compel the Port Authority to keep its pedestrian crossings open 24 hours a day and seek a statewide bicycle network like that in the UK and other countries- the point not necessarily being to make NJ a bicycle paradise, but to destroy the *de facto* reality that car access determines mobility and establish the principle of freedom of movement by human power.

Simply making denser living areas near transit is not enough. That transit has to be affordable, reliable, and frequent. Today, even though Northern NJ and much of the rest of the state is along rail transit lines that could be used for this purpose, New Jersey Transit still operates as a boutique, peak-direction, peak hour service in many cases. In New Jersey's urban centers, buses are miserably slow because they make too many stops and do not have dedicated lanes or traffic signal priority. An electric bus idling in traffic between making many stops with a low average speed and low ridership because it is unreliable and slow is worse for the climate and for the taxpayer than an old diesel bus that is exactly where it is supposed to be every time and moves quicker than a car stuck in traffic can.

However, before New Jersey can discuss electric cars and buses, it should be funding a full buildout of electrified railways made to today's international-grade FRA standards. Lighter EMU trains running frequently on dedicated rights of way at all hours, at a low fare, should be the standard for New Jersey Transit. This can be accomplished by copying the best practices from around the world in terms of modern fare collection, operations, and rolling stock, rather than clinging to an obsolete golden age-that-wasn't-that-golden of rush hour commuter trains that are partly, arbitrarily forced to run on diesel. All of this technology exists and should be implemented before newer, riskier investments in battery electric buses. Even where New Jersey Transit's rail operations are electrified, they aren't up to par with other developed countries' in terms of frequency and all-day running times and are hampered across state lines, which is a major problem for a state with major metro areas centered in other states. New Jersey's transit agencies should stop comparing their operations to our even more backwards neighbor states and look abroad to continental Europe, Russia, and East Asia.

Even when electrified operations are entirely within the state, as with the Hudson-Bergen Light Rail, the trains do not have traffic light priority even though New Jersey Transit has the power to implement that immediately. Investing in electrifying NJ Transit's confused, haphazard bus operation would be a waste today.

NJ Transit should be forced to redesign its entire network with the stated goal of maximizing ridership and all relevant state powers should be brought to bear on

this task by stopping funding for any new roads and suburban development that will be un-reachable by transit, and forcing the Port Authority of New York and New Jersey to open bus lanes in the Holland Tunnel and George Washington Bridge, and where merited, other crossings, and forcing all these to stay open to bus priority at all times when a bus might use them. Climate change is too important to let the Port Authority of New York and New Jersey, and for that matter the Delaware River Port Authority of Pennsylvania and NJ, operate siloed, untouchable transportation operations. For example, I encourage members of the board to try to ride a bus with luggage to Newark Airport at a few random days at different times and think about the experience, including the fact that bus riders must walk around multiple barriers and car lanes to get to the terminal.

When that process is underway, it will be appropriate to modernize the bus fleet with electrified buses with whatever funds are available, with clean power sources. But again, full diesel buses are much more helpful than empty electric ones.

New Jersey should not subsidize any car charging infrastructure. This is a distraction from a robust, statewide transportation network that includes electrification and expanded trackage to all parts of the state which merit it, in particular, reactivating unused lines in Bergen County and expanding fixed-route transit in and to urban cores.

New Jersey should eliminate all ambiguity and make ANY new fossil fuel infrastructure: roads, natural gas pipelines and connections, gas stations—illegal immediately. Aside from the direct effects, more suburban sprawl is unreachable by transit and is fiscally ruinous to the state.

Offshore wind power is a good thing and the state should commit to as much as the grid can tolerate, but if Pennsylvania, New York, and Maryland will not permit a corresponding amount of electrical transmission and onshore wind power to offset when the wind is not blowing offshore, New Jersey should have plans ready to buy and site off-the-shelf nuclear reactor technology, starting with Oyster Creek. The stakes are too high to hitch New Jersey's future to other states that refuse to cooperate, or to extremely expensive battery technology.

Local energy planning is largely a waste of time and effort. Every energy source must be decarbonized. Microgrids, community solar, individual home solar panel

subsidy schemes that do not fit this rubric are a distraction. A deregulated retail electricity market also makes no sense for this reason.

The nuclear subsidies should be scrapped and the state should buy PSE&G and Exelon's nuclear power stations and operate them on a public basis while making clear that all fossil fuel electrical power sources will be phased out as soon as it is logistically possible to do so. 10 years from plan approval is a reasonable target based on experience building nuclear and offshore wind power stations in Europe and Asia.

Sincerely yours,

Raphael Wakefield