



Via electronic submission to emp.comments@bpu.nj.gov

September 16, 2019

TO: Aida Camacho, Secretary
New Jersey Board of Public Utilities
44 South Clinton Avenue, 3rd Floor, Suite 314, CN 350,
Trenton, New Jersey 08625

FROM: Zachary S. Kahn, Director of Government Relations
On behalf of BYD Motors

RE: Comments on the 2019 Draft State Energy Master Plan

Secretary Camacho:

Enclosed please find the comments submitted on behalf of BYD Motors LLC, pursuant to the notice released by the Board of Public Utilities regarding the Energy Master Plan Stakeholder Meetings, dated August 21, 2019.

Thank You.



On behalf of BYD Motors LLC (BYD), I appreciate the opportunity to submit the following comments regarding the New Jersey Board of Public Utilities (NJBPU) 2019 Draft Energy Master Plan (EMP). I want to thank Governor Murphy for his leadership on energy and climate issues and his determination to put New Jersey on a path toward a clean energy future. I commend the state and NJBPU for leading the EMP with *Strategy 1: Reduce Energy Consumption and Emissions from the Transportation Sector*. My comments will focus particularly on the issues related to the electrification of the medium- and heavy-duty vehicle sector in New Jersey.

BYD is a global company that is changing what is possible in zero-emission transportation. Our commitment to “solve the whole problem” has made BYD an industry pioneer and leader in not only the transportation sector, but also high-efficiency energy storage, solar power, LED lighting, and information technology. BYD and its shareholders, including Warren Buffett’s Berkshire Hathaway, see these environmentally and economically forward products as the way of the future.

Our American headquarters and manufacturing facilities are located in Southern California. We recently signed a lease on a service hub in northern New Jersey that we expect to use as our Eastern U.S. headquarters. This service hub will allow BYD to service our customers in the eastern region. We are vertically integrated in order to better control the quality and costs throughout the manufacturing chain. We produce every major vehicle component, including our 100 percent recyclable batteries, inverters, and traction motors. This business structure ensures seamless communication and efficiency across components, which creates a better operational experience and competitive pricing.

BYD recognizes the importance of clean energy and its key roles in both economic development and environmental sustainability policy. Plug-in electric vehicles (PEVs), across the spectrum of on- and non-road vehicle types can help New Jersey achieve the ambitious and achievable goals set forth by Governor Murphy.

Our comments below are in response to the questions identified in the EMP, which outlines a roadmap to reach the goals of 100% clean energy and 80% emissions reductions from 2006 levels by 2050, and builds upon our public and written comments submitted during the Clean and Reliable Transportation Stakeholder Meeting. I look forward to engaging with the State of New Jersey and the NJBPU in furthering the economic development and environmental sustainability policies as they pertain to our clean energy future.



Comments & Feedback:

State Fleets

Goal 1.1.5: Rollover the state light-duty (passenger) fleet to EVs is a commendable and achievable goal for the state to set, however, the state should not limit itself to rolling over only its light-duty fleet to EVs. Commercial technology exists today that allows the state to electrify nearly every vehicle type in its fleet. In California for example, AB739 set goals for the state fleet to begin converting its heavy duty vehicles to zero emission options. It set a relatively low near term goal of 15% of all new heavy duty vehicles purchased by the state being zero emission vehicles by 2025, and 30% of all new purchases by 2030.¹ This bill was signed into law well before numerous legacy manufacturers announced significant plans to build electric trucks. New Jersey should set more ambitious goals given the pace at which the technology has developed in the last two years and should aim for 50% of all new heavy-duty vehicles purchased by the state be zero emission vehicles by 2030, 100% of new purchases in 2035, with a complete turnover of the state's fleet to zero emission vehicles by 2045.

New Jersey Transit

The EMP rightly focuses on improving the environmental performance of New Jersey Transit (NJ Transit). BYD agrees with this goal and suggests that NJ Transit set a goal of full fleet electrification by 2040. Transit agencies across the country have already adopted similar goals, and the state of California has adopted a regulatory requirement called the Innovative Clean Transit Rule that commits all transit agencies in the state to be full zero emission by 2040. The market for electric buses is no longer nascent but has matured to the point where there are zero emission options for every type of bus in NJ Transit's fleet. NJ Transit has one of the largest fleets of commuter coach buses in the country, and there may be some concern with electrifying those types of buses. It should be noted, however, that BYD's all-electric 45' commuter coach is expected to complete federally mandated Altoona bus testing by the end of the year, and BYD is already manufacturing more than 35 of these buses for customers in the US. This bus will have more than 200 miles of range which would enable NJ Transit to meet the duty cycle of most of the routes that utilize these buses (especially as there is ample opportunity to charge these buses during the middle of the day). NJ Transit should set a bold goal for electrification and should strive to be a national leader in the space.

Zero Emissions Port Strategy - Roadmap

Additionally, New Jersey should adopt and implement a zero emissions ports strategy. To do so, the state can start with reviewing successful programs already implemented elsewhere and update them to New Jersey's unique operating environment. One program to focus on would

¹ https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201720180AB739



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be the Zero-Emission Roadmap created by California's San Pedro Bay Ports Clean Air Action Plan. This roadmap identifies strategies and goals to support the development of port-related zero-emission technologies and recognizes that a suite of technologies and strategies will be required to achieve zero emissions goods movement. The idea of integrating multiple approaches to foster technological innovation and regional partnerships should be a cornerstone to New Jersey's efforts. The guiding principle should be to electrify everything that can be electrified now (yard trucks, drayage trucks, forklifts, etc.) and develop a detailed roadmap for the electrification of the rest of the port.

Commercial PEVs have advanced to a point where each of the vehicle types used along the goods movement chain can be electrified—from the yard, drayage and forklift equipment used to receive product to the Class 6 delivery and refrigerated vehicles use to fulfill orders to the end customer. To promote low-carbon freight and goods movement, New Jersey should continue to ensure that as much of its allocation of the Volkswagen settlement funds as possible are allocated to electric vehicle and infrastructure investments, especially in the medium- and heavy-duty sectors. BYD commends New Jersey for the bold steps it has taken in the selection of zero emission truck projects with its initial VW settlement allocation.

In addition to aggressively allocating its Volkswagen settlement funds to electrification projects, New Jersey should implement other approaches to incentivize electrification investments. For example, providing access to high-occupancy vehicle lanes has been a successful incentive for EV purchases in California. Green Express Lanes at the ports and in other keys areas of the freight network that allow EVs to skip to the head of the queue or generally avoid truck congestion should be integrated in the larger freight network to further incentivize clean vehicles throughout the freight network. Not only will green express lanes improve freight economics and efficiency, they will improve the air quality in the communities through which commercial vehicles pass.

The state should also work with the Port Authority of New York & New Jersey (PANYNJ) to commit to electrification of the ports under their supervision by 2040 (with benchmark goals for 2020, 2025, 2030, and 2035). This plan could start with utilizing a portion of the VW funding to replace diesel yard trucks with electric models, but should also include programs to replace diesel drayage trucks with electric options.

Voucher Incentive Program

Goal 1.1.8 references voucher incentives as a potential program for New Jersey (referenced on p. 34 of the EMP). Vouchers are a simple and tested tool for speeding deployments of zero emission commercial trucks and buses. Voucher programs have proven successful in other jurisdictions (including New York and California), as simple-to-use and cost-effective inducements to help commercial fleet operators identify and purchase available clean technology by taking advantage of point-of-sale discounts to bring zero emission technology



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closer to cost parity with diesel technology. A voucher program could be implemented quickly and leverage local fleets' familiarity with this mechanism. This will allow New Jersey to hit the ground running as the next leading market for clean and zero-emission commercial vehicles.

Diesel Buy Out Program – Focus on Electrification

Goal 1.3.2 references a Diesel Buy Out program for the ports. Port vehicles – including yard or terminal trucks and drayage trucks – are already being electrified throughout the country, and this Program should focus on getting vendors and operators in the ports of New Jersey to replace their diesel trucks exclusively with zero emission options. In particular, focusing on terminal tractors (also referred to as yard tractors, yard hostlers, or yard trucks), would be a viable solution to addressing non-road diesel emissions. Terminal tractors move freight quickly and efficiently through the state's ports, as well as inland terminals. However, this efficiency is at the cost of clean air because terminal tractors typically use older, high-emitting diesel engines. New Jersey can therefore make an immediate and lasting impact on local air quality in these disproportionately burdened areas by electrifying those terminal tractors. Drayage trucks that are used extensively to move cargo from the ports to distribution centers are also prime targets for electrification and the state should consider both carrots – monetary and non-monetary incentives – as well as sticks in the form of requirements and higher fees, to get operators to electrify their trucks on a more expedited time frame.

Charging Infrastructure

The most significant obstacle to widespread electric bus and truck deployments in New Jersey is a lack of investment in charging infrastructure. The lack of infrastructure creates difficulty in providing potential customers with successful case studies, and thus creates a reluctance to invest.

NJBPU should demonstrate its commitment to overcoming the infrastructure barrier in two key ways. First, NJBPU should ensure that individual utilities are involved in long-term planning and short-term incentive creation to cover the incremental costs of EV fleet development. Second, NJBPU and its stakeholders should seek to secure commitments from political leadership to serve as “torch bearers” for clean transportation projects. An example of the successful use of such a two-pronged strategy can be seen in the state's offshore wind projects.

Large-scale investments in recharging infrastructure that supports electrified medium- and heavy-duty vehicles will demonstrate at a commercial scale electrified on- and non-road vehicles. These projects, and the data generated from them, will serve as the model for other states who are interested in installing fast chargers at their facilities. The creation of an EV docket that encourages utilities to provide EV infrastructure plans that address rate basing, coupled with incentives such as vouchers or green bonds, are key approaches to overcoming



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insufficient EV infrastructure. Utilities should also deliver rates specific to EVs (and specific to EV fleets) and coordinate on project implementation for service upgrades.

In the long run, New Jersey may need to create new policies that will generate new, significant revenue for these investments, such as a state or regional Low Carbon Fuel Standard, and/or implementing a cap-and-invest system for the region as part of the Transportation Climate Initiative (TCI).

Thank you for the opportunity to provide comments on the draft EMP. The state has done a tremendous job in this document in laying out its roadmap to reducing emissions in the state and setting a path for it to be a national leader in transportation electrification. BYD looks forward to working with the state to meet and exceed its ambitious goals. Please feel free to contact me directly about these comments. I can be reached at (213) 400-7279 or zach.kahn@byd.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'Zachary S. Kahn', written over a thin horizontal line.

Zachary S. Kahn
Director of Government Relations, North America
BYD Motors LLC