



Tuesday, January 24, 2023

via email: board.secretary@bpu.nj.gov

Carmen D. Diaz

Acting Secretary of the Board
44 South Clinton Ave., 1st Floor
PO Box 350
Trenton, NJ 08625-0350

Re: BPU Docket No. QO21060946

Dear Acting Secretary Diaz:

New Jersey Resources Corporation (“NJR”) appreciates the opportunity to submit the following comments on BPU Docket Number QO21060946, pertaining to the development of a Medium and Heavy Duty (“MHD”) Electric Vehicle (“EV”) Charging Ecosystem for New Jersey.

NJR has played a leading role in New Jersey’s clean energy initiatives over the years. Since 2010, we have invested more than \$1 billion in more than 400 MW of solar projects across all market segments and counties in New Jersey, comprising about 10 percent of solar installed in the State. This investment has supported more than 1,000 local jobs constructed with union labor, helped our customers save on energy costs, and helped reduce 330,000 tons of greenhouse gas emissions. We’ve also invested in a green hydrogen production facility, enabling us to start delivering lower emissions energy to our customers while leveraging existing infrastructure. This investment can offset approximately 180 tons of CO2 emissions per year.

While we understand this stakeholder process, and the resulting straw proposal, was focused exclusively on battery-electric vehicles – we concur with the NJDEP’s 80x50 Report, as well as the New Jersey Clean Truck Rule – which expand the realm of vehicle technologies to include hydrogen when discussing the future of MHD vehicles.

NJR recommends that Staff incorporate hydrogen into this proceeding, for the following reasons:

1. There is strong federal support from the U.S. Department of Energy for regional clean hydrogen hubs that specifically target transportation. Co-located production facilities, fueling stations, and storage units would reduce the need for long-distance infrastructure and lower the cost of early market growth until large scale demand develops. The U.S. Department of Energy’s support indicates the federal interest in participating in the global hydrogen economy. State policy that aligns will assure that New Jersey will participate and benefit from the economic growth and environmental benefits of the hydrogen-based economy.
2. Hydrogen is an attractive technology due to its high energy-density, which allows for longer driving ranges and faster refueling times compared to battery electric vehicles. This is particularly important for medium and heavy-duty vehicles, which often need to travel long distances and cannot afford long downtime for charging. Hydrogen fuel cell electric vehicles (FCEV) essentially

operate the same as battery electric vehicles (BEV), with an electric motor and a battery. The main difference is that a FCEV incorporates hydrogen storage and a fuel cell which continuously charges a smaller onboard battery compared to a BEV. Smaller onboard batteries also mean less lithium and cobalt is used. Refueling times are similar to gasoline and diesel because the hydrogen tanks are being filled with molecules as opposed to charging a battery with electrons. Green Hydrogen fuel cell vehicles will have a lower operational carbon footprint when considering renewable electric generation.

3. Hydrogen fuel cells are more durable and require less maintenance than batteries, which can make them a more cost-effective option in the long run. Hydrogen fuel cells are also not as affected by the same degradation issues that batteries experience, which can further improve their cost-effectiveness.
4. According to Bloomberg New Energy Finance, total cost of ownership for hydrogen-fueled MHD vehicles may become cheaper than BEVs by 2030. Battery electric MHD vehicles with 500-mile range are estimated at approximately \$0.60/mile, where MHD fuel cell vehicles with 500-mile range are estimated to cost approximately \$0.50/mile. (Adithya Bhashyam, Bloomberg New Energy Finance, November 29, 2022, Page 4)
5. The State has a robust pipeline network, which can be used to transport hydrogen and supply refueling stations at an efficiency level surpassing even traditional gasoline. Billions of dollars have already been invested by ratepayers to develop, build, and maintain this infrastructure – today, it is the focus for technology development, innovation, and investment to leverage its value in delivering low- and zero-carbon energy forms to support a variety of end-uses, including hard-to-decarbonize segments of the transportation sector. Using hydrogen as a primary vehicle fuel for MHD vehicles can leverage this infrastructure network to accelerate this segment’s decarbonization efforts more quickly and at a potentially lower cost.

We appreciate the opportunity to comment on this proceeding. We look forward to working with Staff and stakeholders to develop a strong program to drive zero-carbon adoption of Medium and Heavy-Duty vehicles in New Jersey – and using a variety of different technologies would most quickly and effectively drive that adoption.

Sincerely,

Larry Barth
Managing Director, Corporate Strategy

cc: Steve Osborne Jr. - Sr. Corporate Strategy Analyst
Robert Pohlman, Vice President – Clean Energy Ventures and Corporate Strategy
Garrett Lerner, Managing Director Development and Finance
Henry Labalme, Manager Development Emerging Technologies
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