



June 17, 2020

Joseph L. Fiordaliso
President
New Jersey Board of Public Utilities
Post Office Box 350
Trenton, NJ 08625-0350

Re: DOCKET NO. QO20050357: In the Matter of Straw Proposal on Electric Vehicle Infrastructure Buildout

Dear Mr. Fiordaliso,

Electrify America, LLC, appreciates the opportunity to comment on the Straw Proposal on Electric Vehicle Infrastructure Buildout. Electrify America is a wholly-owned subsidiary of Volkswagen Group of America that operates the nation's largest open DC fast charging network for electric vehicles. Our company currently operates 33 chargers across seven stations in New Jersey, with another 19 chargers across three stations under construction. Additionally, we have numerous projects under development in the state through our second phase of investments, which are expected to be completed by December 2021. Finally, we have just announced the opening of our submissions portal for input from a broad range of stakeholders that will be considered for our third cycle of investments, which may lead to further EV charging infrastructure in the state between January 2022 and June 2024.

Support from the utility sector is critical to ensuring that New Jersey meets its ambitious targets for transportation electrification, including the goals of 330,000 plug-in vehicles registered and 400 DC fast chargers deployed in the state by 2025, and Electrify America commends the New Jersey Board of Public Utilities for developing this straw proposal to help meet the state's commitments to transportation electrification.

Electrify America's comments on the Straw Proposal are best summarized in three principles, which are further elaborated on within this letter:

ACCESS

First, there must be public vehicle charging options that are available ubiquitously to all drivers, especially for the significant population that will not have access to workplace or residential chargers.

FAIRNESS

Second, in keeping with the above, effective utility rates for electricity delivered to public charging stations should be commensurate with if not lower than those for residential charging in order to create equitable incentives for adopting electric transportation between those that have access to charging at home and those that do not.

EXPERIENCE

Third, the speed of charging an EV should approach that of refueling a gas/diesel powered vehicle. To accomplish this requires higher power level charging infrastructure.



ACCESS

With respect to the principle of Access, Electrify America broadly supports the framework of “shared responsibility” outlined in the proposal, under which electric distribution companies (EDCs) would be responsible for the “wiring and backbone infrastructure” to support charger-ready locations, and EVSE infrastructure companies would be “primarily responsible for installing, owning and/or operating, and marketing EVSE.” As an EVSE Infrastructure Company with substantial investments in New Jersey, Electrify America appreciates the recognition that private companies have already made substantial investment in the state, and that utility support for make-ready infrastructure can encourage additional private sector investment in EV charging infrastructure in New Jersey.

Electrify America now provides feedback on some of the details of the straw proposal, including the proposed utility responsibility to “develop hosting maps in conjunction with the EV Mapping Effort that identify where to prioritize making sites Charger Ready.”¹ Electrify America selects “customer-centric” sites for development based on a range of key criteria, including, but not limited to, an agreement with a site host, proximity to major travel corridors, continuity with existing charging infrastructure, site visibility, lighting, and safety, adequate parking, and geospatial modeling based on existing and projected EV deployments and charging needs. An overly prescriptive approach towards identifying sites for development could potentially interfere with the private sector’s capacity to identify suitable targets for EVSE deployment. As such, we encourage the Board to consider the EV Mapping Effort as only one input to prioritizing where to make sites Charger Ready, and to recognize that sites proposed by EVSE infrastructure companies are also based on sophisticated analysis of viable and consumer-oriented charger locations.

Another area that raises some concern is the 12-month timeframe for EDCs to make locations Charger Ready, particularly when combined with the existing long timeframes for project development in New Jersey. Having now developed projects in 46 states, Electrify America has found that EVSE permitting timeframes for projects in New Jersey are by a wide margin the longest in the country, taking more than 2.5 times the national average. Electrify America’s 2019 National Annual Report states that the average permitting duration for projects in New Jersey was 114 business days, or more than five months.² If the 12-month timeframe for EDCs to make locations Charger Ready begins at the end of an already lengthy permitting process, the overall timeframe for station development could easily extend to one-and-a-half to two years. Reducing both permitting timeframes and the expected timeline for EDCs to complete Charger Ready improvement will be necessary to ensuring that stations are deployed in an expeditious manner.

Electrify America supports the proposal that EDCs would perform any necessary upgrades on the utility side of the meter to support new charging station infrastructure and the anticipated load on the distribution system caused by the expansion of the EV ecosystem, and that such costs will be recovered from the rate base, not from the EV charging station provider building the station. But Electrify America encourages the Board to design this program so that the EDCs act expeditiously to make the upgrades on the utility side of the meter at the sites which the charging industry has identified, secured and permitted, thereby enabling the EDCs to

¹ State of New Jersey Board of Public Utilities, 2020. “New Jersey Electric Vehicles Infrastructure Ecosystem 2020 Straw Proposal,” p. 8.

² Electrify America, 2020. “2019 Electrify America National Annual Report,” p. 6. Available at: <https://media.electrifyamerica.com/en-us/releases/94>



facilitate the rapid deployment of charging stations and the rapid growth of the charging industry in New Jersey without depending on the EDCs to direct that growth.

FAIRNESS

With respect to the outlined principle of Fairness, Electrify America supports the commitment to “reform utility rate structures that are acting as barriers to mass deployment of EV infrastructure”³ in the state. Electrify America notes that commercial rates meant for high load factor service were not designed for utilization by the unique low-load factor profile of high-powered DC Fast Charging. This could result in improper subsidization from public charging networks, and would need to be addressed should EVSE infrastructure companies have an appropriate signal to invest in New Jersey.

In the Public Stakeholder Meeting held on June 3rd regarding the Straw Proposal, Electrify America outlined the operational risks imposed on EVSE infrastructure companies that make New Jersey among the most uneconomical states in the nation for EVSE infrastructure companies providing fast charging services. Specifically, Electrify America noted that a single energized location could have a potential demand charge exposure approaching \$750,000 annually regardless of the level of customer activity or the volume of electricity delivered⁴. This operational risk discourages EVSE infrastructure investment in the state generally, and it is particularly discouraging to those investing in the fastest, most consumer-friendly charging stations that focus on high-power charging. As a result, especially high demand charges will serve as an impediment to the Charger Ready vision the Straw Proposal outlines if not addressed.

The Straw Proposal states that the effective rate for energy by residential customers in multi-family dwellings should be comparable to that paid by those living in single-family dwellings. Electrify America would suggest to the Board to expand this proposal to all public fast charging infrastructure to best meet the fairness principle outlined above.

As outlined in Electrify America’s Cycle 2 ZEV Investment Plan, access to affordable, fast, ubiquitous public charging is a critical component to transportation electrification. It is recognized that current electric vehicle adoption is concentrated with households that have access to charging at home. Equity in charging cost is frustrated by the fact that lower-income Americans are much more likely to rent their homes than wealthier Americans. According to analysis of Census data by CityLab, “households earning less than \$50,000 per year have a homeownership rate of around 45 percent, while nearly 80 percent of households earning more than \$50,000 own.”⁵ Because it is far more difficult to install a home charger at a rental property or multi-unit

³ State of New Jersey Board of Public Utilities, 2020. “New Jersey Electric Vehicles Infrastructure Ecosystem 2020 Straw Proposal,” p. 2.

⁴ Electrify America operates a location in East Brunswick, NJ with eight 150 kW DCFC and two 350 kW DCFC, with a total interconnected load of 1900 kW. Based on the PSE&G Tariff effective June 1, 2020 an LPL Summer Demand Charge of \$8.9495/kW + CIEP Capacity Charge of \$11.6828/kW + BGS Transmission Charge of \$12.9349/kW would be applicable, resulting in a total demand charge of \$33.5672/kW or \$63,778/month if a coincident charging event materialized. (<https://nj.pseg.com/aboutpseg/regulatorypage/-/media/6A04206002AF417EA4857F50778FE6A0.ashx>)

⁵ In addition to income disparities, a 2018 Harvard University study found significant disparities in homeownership by race and ethnicity. See <https://www.citylab.com/life/2018/08/who-rents-their-home-heres-what-the-data-says/566933/>; http://www.jchs.harvard.edu/sites/default/files/Harvard_JCHS_State_of_the_Nations_Housing_2018.pdf



dwelling, these trends create a significant challenge to EV adoption in New Jersey, and they accentuate the critical importance of providing available, convenient, and ultra-fast EV charging to populations that cannot easily install a home charger. To best meet New Jersey's ZEV Memorandum of Understanding and SB2252 goals of 330,000 plug-in vehicles registered and 400 DC fast chargers deployed in the state by 2025, equitable EV adoption incentives must be provided to all drivers, whether or not they have access to home, workplace, or multi-dwelling charging infrastructure.

To accomplish this via rate reform, Electrify America urges the Board to have EDCs minimize demand charges and fixed service costs, while allowing recovery of only the marginal cost to serve without riders or other non-bypassable surcharges associated with historical infrastructure costs and unrelated programs. Specifically, the effective \$/kW-hour charges for all public charging infrastructure should be comparable to effective rates for residential charging in each EDC to best meet the Fairness objective outlined above. Furthermore, such rates should be guaranteed for a reasonable horizon, such as 10 years, to ensure that investment in economically viable for EVSE infrastructure companies.

Electrify America holds that the make-ready Charger Ready incentives combined with appropriate rate reform should broadly provide sufficient incentives to meet New Jersey's objectives for charging infrastructure by 2025. In areas where infrastructure needs may not be met via these approaches alone, Electrify America would encourage close examination of utility ownership and operation of charging infrastructure. Given the significant ratepayer risk that would be incurred by EDC ownership, including potentially stranded investments, Electrify America would encourage the Board to maintain the Shared Responsibility approach to meet its goal of ensuring equitable distribution of EVSE. Specifically, in the areas where EV charging station investments are least economically appealing to the private sector, we would also encourage the Board to address that through targeted capital support and additional rate relief to attract private capital investment and competitive activity, while maintaining the existing role of the EDCs. Simply put, competition should spur best outcomes.

EXPERIENCE

With respect to Experience, Electrify America is encouraged that the Straw Proposal outlines 150 kW and above DCFC for Charger Ready to best meet the experience needed to drive EV adoption in the state. In the Public Stakeholder Meeting held on June 3rd regarding the Straw Proposal, Electrify America noted that 150 kW charging infrastructure may provide refueling speeds of nine miles per minute, while Electrify America's 350 kW DCFC infrastructure may provide refueling speeds of 20 miles per minute for capable vehicles⁶ – approaching gas station refueling speeds. Electrify America posits that this fast charging customer experience is crucial to achieving New Jersey's ZEV adoption goals, especially as a large segment of the population may never have practical access to workplace or home charging, and encourages the Board to further incentivize such customer friendly higher power level infrastructure as part of its implementation of Charger Ready. Electrify America also wishes to emphasize that providing maximum charging speeds on demand to customers who need them is critical to user experience, making DC fast charging unsuitable for load management solutions that throttle customer charging power. In 2017, the Rocky Mountain Institute found that DC fast

⁶ Assumes 3.5 miles per kilowatt-hour.



charging “users expect to be able to obtain a maximum-speed charge from them in the shortest possible time, so it’s generally not practical to turn DCFC on and off (or ramp their power output) in response to changing grid conditions.”⁷

Importantly, Electrify America urges the Board to consult with industry regarding the technology specifications prioritized under the program. In particular, we note that the Straw Proposal indicates that an EVSE Infrastructure Company electing to use an EDC-funded Charger Ready location would be required to commit to “using chargers capable of handling more than one EV, such as dual-port chargers, wherever technically feasible.” Electrify America installs large-format charging stations that are “capable of handling more than one EV,” but each charger is dedicated to a charging space and cannot charge more than one vehicle at a time. While each charger includes two cables, the two cables are necessary because auto manufacturers have not yet standardized the location of the charging port on today’s EV models, with ports located alternatively at the front center, front driver’s side, back driver’s side, front passenger’s side, and back passenger’s side. Two cables are necessary to comfortably reach all of these charge port configurations, without making the cables overly long or heavy, particularly given that Electrify America stations require thicker cables capable of supporting up to 350 kW of charging power. While simultaneously charging two cars from a Level 2 AC charger is quite common, Electrify America is not aware of a single large charging network in the United States that commonly deploys DC fast chargers capable of charging two vehicles at the same time. As such, Electrify America respectfully recommends that the Board eliminate the dual-port requirement, which is not consistent with trends in charger design and charging speed.

Electrify America appreciates the opportunity to comment on the Straw Proposal, and looks forward to continuing to work with the Board and the State of New Jersey in meeting the state’s ambitious targets for electric vehicle and infrastructure deployment.

Sincerely,

/s/

Matthew B. Nelson
Director of Government Affairs

⁷ Rocky Mountain Institute, 2017. “From Gas to Grid: Building Charging Infrastructure to Power Electric Vehicle Demand,” p. 35. Available at: <https://rmi.org/wp-content/uploads/2017/10/RMI-From-Gas-To-Grid.pdf>