

January 25, 2023

Response from Fermata Energy to the New Jersey Bureau of Public Utilities’ Request for Comments on the draft Straw Proposal for the development of a Medium and Heavy Duty (MHD) Electric Vehicle (EV) Charging Ecosystem for New Jersey

Fermata Energy appreciates the opportunity to respond to the New Jersey Bureau of Public Utilities (NJ BPU) Staff request for comments on the development of a MHD EV Charging Ecosystem draft Straw Proposal, Docket No. QO21060946.

Fermata Energy is a leading provider of Vehicle-to-Everything (V2X) services, which includes Vehicle-to-Grid (V2G) and Vehicle-to-Building (V2B). Fermata Energy has multiple V2X deployments across the country, enabling electric vehicle (EV) owners to discharge power from the batteries onboard their EVs for onsite power. Our V2X technology benefits our users, transforming EV charging from a cost to a revenue-generating, grid-supporting asset.

Overall, we commend Staff for assembling a thoughtful Straw Proposal that considers expansion of Make-Ready Incentives for private fleets, review of rate design and interconnection processes, and means of technical and financial support from the electric distribution companies (EDCs) for MHD infrastructure in New Jersey. While the new proposal presents exciting opportunities for the EDCs to pursue in EV charging ecosystem development, this opportunity is severely limited to those entities located in Overburdened Municipalities (OBMs) as specifically defined by the proposal. For example, PSE&G only serves 19 OBMs, because OBM is defined more narrowly than the definition for Overburdened Communities used in New Jersey for other purposes. In addition, essential service providers like hospitals and private educational institutions would not qualify for utility support unless within an OBM.

In the spirit of accelerating fleet electrification to achieve New Jersey’s ambitious EV adoption goals, we recommend Staff consider pathways for utilities to develop and or own charging infrastructure. To maintain equity among ratepayers and support a reliable grid for all New Jersey residents, we recommend preservation of demand charges that promote economically efficient consumption by aligning cost allocation with cost causation. V2X accesses the battery capacity onboard EVs to mitigate demand to the grid by discharging those batteries to reduce site consumption.

Response to Proposed Program Elements

A Modified “Shared-responsibility” business model

Fermata Energy joins Staff in recognizing the EDCs’ expertise in technical and planning support, and the need to wisely allocate ratepayer money with a focus on public accessible charging depots, public-serving fleets, and private depots located in or primarily operating in OBMs. We recommend Staff consider expanding qualified location and fleets for the EDCs’ expertise and infrastructure investment, as well as additional EDC ownership and investment models that can accelerate EVSE infrastructure deployment and the benefits this infrastructure will bring to New Jersey:

- As discussed above, we recommend more broadly defining locations that qualify for technical and planning support because the limitation to OBM may hamper the intent of promoting electric fleets in Overburdened Communities.
- Enable EDCs to have the ability to own and operate technology that will enhance the integration of MHD charging depots to the grid, which includes software to automate charging and or discharging of the EVs, stationary storage, and bidirectional chargers that enable utilities to access battery storage onboard EVs anywhere the utility can own and control a bidirectional EV charger.
- For EDCs that are hosting charging depots that will have stationary storage and bidirectional charging capabilities, that will provide benefits to the grid, enable EDC options to develop and own or develop and sell/transfer ownership of these depots to private investors. Allowing EDCs the option of developing charging depots that can benefit their distribution networks will leverage the EDCs technical and design knowledge, as well as accelerate infrastructure deployment because the EDC can optimize the coordination of front-of-meter and behind-the-meter developments.
- A corollary to the recommendation of allowing EDCs to own or develop charging depots would be to allow the utility to negotiate services from the charging depot's stationary storage and bidirectional EVs. If EDCs can purchase energy and capacity, or dispatch rights from these charging depots, it could create an incentive for private investors to develop and deploy charging depots that have stationary storage and bidirectional EVs where the utility would otherwise need to upgrade a circuit or substation.

Allowing utilities to own and operate this infrastructure may achieve two goals for NJ: accelerate transportation electrification and accelerate the deployment of battery energy storage on the grid to support grid decarbonization. Allowing these alternative ownership models, particularly in overburdened communities, can boost EV access and energy storage deployment, as we will discuss further in our comments.

EDC technical assistance

The Straw proposal recommends the EDCs provide technical assistance, including the development and hosting of customer-accessed fleet planning and modeling tools to private fleets interested in EV adoption to ensure adequate charging infrastructure is planned for an incorporated into the grid. Such a tool is valuable to educate customers about their options. Most fleet electrification tools are limited to the costs of replacing existing conventional gasoline- or diesel-fueled vehicles with EVs and lack information about technologies that can manage the cost of fleet electrification such as managed charging and vehicle-to-grid equipment and software. Fermata Energy recommends the EDCs include insight into technologies such as these for their fleet customers, so that these customers can work with the EDCs to minimize the operating costs of their charging depots.

Tariffs and other managed charging incentive design

Fermata Energy agrees with Staff that a demand charge program should preserve demand charges. Cancelling demand charges could have the unintended effect of increasing infrastructure costs for all EDC customers. Charging depot operator-owners can minimize and even avoid demand charges related



to charging depot operations by installing and deploying load management technologies such as stationary storage, bidirectional EV charging, and automated load management software.

To encourage adoption of load management technology and public charging investments, Fermata Energy offers this feedback:

- EDCs can own or provide Make Ready funding for behind-the-meter energy storage, bidirectional charging technology, and automated load management solutions. Providing an upfront incentive or allowing the EDCs to own these technologies helps the charging depot reduce ongoing costs associated with peak demand while mitigating the amount of front-of-meter infrastructure upgrades necessary during the site construction stage.
- Public charger discount on demand charge, which could take the form of a bill credit. A discount on the customer's demand charge could provide relief from demand charges and encourage deployment of public chargers at charging depots.
- Location-based demand charges in addition to on-peak demand charges, to ensure rapid recovery of Make-Ready infrastructure funded by ratepayers. Fermata Energy recognizes that some charging depots may require more extensive front-of-meter upgrades. A demand charge that recognizes peak and locational costs to deliver power will send a strong incentive for charging depots to manage their load.

In closing

Fermata Energy appreciates the opportunity to respond to the BPU's request for comments. We welcome the opportunity to share our experience in designing, deploying, and operating V2X projects to assist BPU in its consideration of designing the NJ SIP. Our Director of Grid Solutions and Strategic Partnerships, Melissa Chan (melissa(at)fermataenergy(dot)com), may be contacted to further discuss our response. We would be happy to provide a complete briefing.