



May 9, 2022

Jamie Flynn
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NESCAUM

RE: Comments of FreeWire Technologies on Draft Multi-State Medium- and Heavy-Duty Zero Emission Vehicle Action Plan

Mr. Flynn,

On behalf of FreeWire Technologies, thank you for the opportunity to submit these brief comments on the on Draft Multi-State Medium- and Heavy-Duty Zero Emission Vehicle Action Plan (Action Plan). FreeWire is a manufacturer of battery-integrated electric vehicle supply equipment (EVSE), primarily ultrafast direct-current fast charging (DCFC) equipment.

As the draft Action Plan notes, the electric load associated with charging of medium- and heavy-duty vehicles (MHDV) can be significant and present challenges and barriers related to installation and operation of EV charging equipment to support these vehicles. These challenges range from the time and cost related to equipping a location with the necessary customer and utility-side electrical infrastructure required to support EV charging, to operational costs associated with energy, namely demand charges. In addition, without proper management of this load, electrification of MHDV fleets can result in significant strain on the electric grid.

The pairing of EV charging infrastructure and battery-storage presents an opportunity to overcome these challenges, and as a result FreeWire is experiencing increased demand for its charging equipment. Whether integrated with the EVSE or located elsewhere on-site as a stand-alone asset, utilities, regulators, site hosts, and fleet operators are increasingly considering the pairing of these technologies to enable economically viable electrification of MHDV.

FreeWire appreciates the discussion on the co-location of battery storage and EVSE in the draft Action Plan and suggests the following additions under the Strategies and Recommendations section to ensure that this strategy is sufficiently highlighted and encouraged as part of the final Action Plan.

Electric Utility and Utility Regulator Actions

Add after second paragraph in intro:

“Given the large load requirements that MHD vehicle charging represents, utilities and utility regulators must also focus on strategies to manage and minimize the impacts of this new load. Load management and energy management systems, achieved through hardware or software



solutions, will play a critical role for managing installation and operational costs as well as impacts on the grid. Pairing of charging infrastructure with battery-storage, for example, is one such energy management strategy that can help to achieve these objectives.”

Add to list of actions under number 2:

“Develop standardized site evaluation methodology to assess load requirements and approaches to manage costs and grid impacts through load management and energy management systems, enabled by hardware or software technology solutions.”

Add to list of action under number 3:

“Offer incentive programs or other support for hardware or software technology solutions, such as battery-storage, that can be integrated with EVSE to help manage installation costs (e.g., make-ready) and operational costs (e.g., demand charges) as well as to limit grid impacts and support expeditious deployment.”

Planning for and Deploying Public Charging and Fueling Infrastructure

Add to list of actions after number 5:

“State environmental, energy, and transportation agencies should work with utilities to identify opportunities for commercial installation of battery-integrated EVSE or stand-alone battery storage as a strategy to overcome barriers that make installation and operation of public charging infrastructure prohibitive from a cost or timing standpoint.”

Thank you for the opportunity to offer these suggestions. We would be happy to answer any questions or provide additional information upon request.

Sincerely,

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