Center for Carbon-free Power Integration
Electric Vehicle R&D Group
221 Academy Street
Newark DE, 19716-3501

September 26, 2018

New Jersey Energy Master Plan 2019 (EMP)
Sustainable and Resilient Infrastructure Stakeholder Meeting
September 28, 2018

## SUMMARY OF UD EV R&D PUBLIC COMMENT

The University of Delaware's EV Research and Development Group (EV R&D Group), a leader in vehicle-to-grid (V2G) technology, has already commented during two EMP stakeholder meetings.

We limit our comments here to the implementation of FERC Order 841, which we understand is within the purview of the Infrastucture working group.

New Jersey can encourage the growth of behind-the-meter storage, including grid-integrated electric vehicles, in New Jersey by enabling storage resources to participate in the PJM wholesale market. The recent FERC Order 841, when implemented by PJM, will remove barriers that currently make that uneconomic. Storage resources will be able to purchase at wholesale rates the portion of their charging energy that is later to be resold in wholesale markets. But this model can't be employed for behind-the-meter resources unless utilities agree to "net out" this wholesale charging energy from the retail customer's bill.[1]

We recommend that, when Order 841 is implemented, utilities evaluate the feasibility of accounting for the netting out of wholesale charging energy. This is a complex issue, and calls for review and discussion.

[1] "Each RTO/ISO must specify that the sale of electric energy from the RTO/ISO markets to an electric storage resource that the resource then resells back to those markets must be at the wholesale locational marginal price…To the extent that the host distribution utility is unable…or unwilling to net out any energy purchases associated with a resource using the participation model for electric storage resources' wholesale charging activities from the host customer's retail bill, the RTO/ISO would be prevented from charging that resource using the participation model for electric storage resources electric wholesale rates for the charging energy for which it is already paying retail rates." FERC Order 841 (2018).

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We are also requesting, through another EMP working group, retail-level credit for exported energy. (Resources would, of course, receive only one of these credits during any period of time.) If wholesale netting out is not found to be feasible, retail credit-for-export becomes essential.

Respectfully,

Willett Kempton
Professor, School of Marine Science and Policy
Professor, Department of Electrical and Computer Engineering
Associate Director, Center for Carbon-free Power Integration
willett@udel.edu

Sara Parkison
Policy Analyst
parkison@udel.edu

Imelda Foley
Policy Analyst
imelda@udel.edu