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SUBMITTED ONLINE

Sherri L. Golden
Secretary of the Board New Jersey Board of Public Utilities
44 South Clinton Ave.,
1st Floor PO Box 350 Trenton,
NJ 08625-0350

**Re: Docket No. QO21010085, Proposed Amendments: N.J.A.C. 14:8-4.2 and 14:8-5,
Proposed New Rule: N.J.A.C. 14:8-5.10, 5.11 and 5.12**

Dear Secretary Golden:

Environmental Defense Fund (“EDF”) submits this comment to New Jersey Board of Public Utilities (“BPU”) Docket No. QO21010085, In the Matter of Modernizing New Jersey’s Interconnection Rules, Processes, and Metrics. These comments are submitted to the docket before 5:00pm ET on August 2, 2024, and thus are timely filed.

Respectfully Submitted,

Michael Zimmerman

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Senior Attorney, Electrification

COMMENTS OF ENVIRONMENTAL DEFENSE FUND ON PROPOSED RULES

Proposed Amendments: N.J.A.C. 14:8-4.2 and 14:8-5 Proposed New Rules: N.J.A.C. 14:8-5.10, 5.11, and 5.12

I. Introduction

Environmental Defense Fund (“EDF”) is a membership organization whose mission is to preserve the natural systems on which all life depends. Guided by science and economics, EDF seeks practical solutions to resolve environmental problems. EDF uses the power of markets to speed the transition to clean energy resources, and consistent with its organizational purpose is engaged in activities to facilitate cost-effective and efficient energy market designs that encourage investment to modernize the energy grid so that it can support the ongoing deployment of renewable energy resources, new electric technologies that avoid fossil fuel combustion and attendant emissions (such as transportation and building electrification) and energy efficiency. EDF has been focused on driving the adoption of clean trucks and buses for over 20 years, including collaborating with commercial entities to accelerate technology development as well as engaging in transformative legislative and regulatory initiatives focused on reducing greenhouse gas emissions and diesel emissions that harm public health especially in vulnerable populations. While trucks and buses today are a significant source of greenhouse gas emissions and local air pollution, an electrified truck and bus sector has the potential to become a critically important grid resource.

EDF previously submitted comments to BPU Docket No. QO21010085, In the Matter of Modernizing New Jersey’s Interconnection Rules, Processes, and Metrics.¹ Currently, BPU is proposing amendments and new rules to incorporate stakeholder feedback at N.J.A.C. 14:8, which governs the interconnection of distributed energy resources to the electric grid. EDF’s comments in this matter are limited to vehicle-related issues, consistent with the scope of prior comments in this proceeding. EDF’s silence on other matters within the BPU’s Proposed Rules does not indicate support or opposition thereto.

COMMENTS

A. The Definition of ‘Customer-Generator Facility’ Should Be Clarified to Exclude Non-Exporting Electric Vehicles.

EDF recommends tailoring the definition of the term “customer-generator facility” to clarify that non-injecting resources—such as charging-only capable electric vehicles (“EVs”)—are not subject to the Proposed Rule’s requirements. Currently, Proposed Amendment N.J.A.C. 14:8-4.2, sets out the following definitions:

¹ Docket No. QO21010085, In the Matter of Modernizing New Jersey’s Interconnection Rules, Processes, and Metrics; *See also*, Docket. No. QO21010085, *Comments of Environmental Defense Fund on Grid Modernization* (July 19, 2022).

“Customer-generator facility” means the equipment used by a customer-generator to generate, store, manage, and/or monitor electricity. A customer-generator facility typically includes an electric generator, energy storage device, vehicle-to-grid device, and/or interconnection equipment that connects the customer-generator facility directly to the customer, whether the equipment is aggregated or not.”

“Energy storage device” means a device that is capable of absorbing energy from the grid or from a generation source on the customer’s side of the meter, storing it for a period of time using mechanical, chemical, or thermal processes, and thereafter discharging the energy back to the grid or directly to an energy-using system to reduce the use of power from the grid.”²

These definitions could be interpreted as including any device that both stores and uses electricity—such as a battery-electric vehicle as a “customer-generator facility.” For example, the Ford F-150 Lightning truck can store electricity absorbed from the grid and later discharge that electricity via onboard 120V plugs to appliances. This could arguably automatically render such a truck an “energy storage device,” and hence a “customer-generator facility,” under the current proposed definitions. Such an overly prescriptive interpretation could trigger interconnection requirements for all EV owners, even those who plan to utilize interconnection solely for vehicle charging purposes. Indeed, EVs have the potential serve as important grid assets through vehicle-grid integration (“VGI”) technologies that enable EVs to export power, and/or provide other services to the grid.³ And the BPU should continue to pursue the incorporation of bi-directional interconnection of EVs. However, not all resources are currently capable of bi-directional interconnection, as technological and safety standards are still being developed alongside a quickly changing grid.

In the meantime, clarifying the Proposed Rule’s definition for “Customer-generator facility” would help refine these requirements and avoid overbroad regulation of non-injecting resources. EDF therefore recommends amending the definition for “Customer-generator facility” to include the following language *in bold italics*:

“Customer-generator facility” means the equipment used by a customer-generator to generate, store, manage, and/or monitor electricity. A customer-generator facility typically includes an electric generator, energy storage device, vehicle-to-grid devices, ***not including electric vehicle chargers and/or electric vehicles that are not configured to discharge energy back to the grid***, and/or interconnection equipment that connects the customer-generator facility directly to the customer, whether the equipment is aggregated or not.

By making this distinction clear, the BPU will avoid adding unnecessary confusion for EV charging-only interconnections.

² N.J.R. 56 996

³ Docket No. QO21010085, *Comments of Environmental Defense Fund on Grid Modernization*, July 19, 2022, at 3.

B. The Proposed Rule’s Definition of Hosting Capacity and Requirements for Hosting Capacity Mapping Should Be Expanded to Include Load in Addition to Generation Capacity.

EDF supports the BPU’s efforts to implement a strong framework for hosting capacity mapping and analysis, as having uniform, up-to-date hosting capacity maps is key for applicants to know where they can plan to meet their energy needs. However, the current Proposed Rules only require EDCs to include generation capacity data. In order for customers to be able to locate appropriate locations for interconnecting resources, hosting capacity maps should include both generation *and* load data. EDF therefore recommends revising the definition for “Hosting Capacity” under Proposed Rules 14:8-5.1 and including requirements for these maps to also provide similar data on import (or load) hosting capacity.

Proposed Amendment 14:8-5:1, defines “Hosting Capacity” as “the amount of aggregate generation capacity that can be accommodated on the electrical power system, or a specific electrical power system circuit, without requiring distribution system upgrades.”⁴ Moreover, the Hosting Capacity Map protocols proposed in 14:8-5:11 do not clarify whether the EDC is responsible for providing equally granular data for both generation and load.⁵ The protocol only references load when it calls for EDCs, to the extent possible under NARUC standards, to provide information on “Uniform Load on a Circuit Segment,” otherwise the requirements focus on gathering generation capacity data.⁶

Not all customers experiencing interconnection delays are seeking to connect generating resources. For example, medium- and heavy-duty (“MHDV”) fleets looking to develop a transition plan to EVs require some degree of certainty for investing in charging infrastructure. A single electric MHDV fleet depot can produce multi-megawatt charging loads, which can come online much more quickly (MHDV vehicles can typically be delivered within 6-12 months) than comparably-sized traditional electric loads such as office buildings. This increases the need to visualize and prepare for MHDV charging loads.⁷ Additionally, EV MHDV fleet owners require import capacity data in order to make predictions about their long-term electrification planning and charging needs. New fleet owners may be unwilling or unable to participate in VGI in the near-term, as import capacity remains uncertain in some areas and owners may need to prioritize their own charging needs first and foremost. EDCs should provide hosting capacity maps that allow customers to visualize load and make planning decisions, including whether to engage in VGI, with more confidence.⁸

The BPU should require New Jersey EDCs to incorporate import load data into its hosting capacity maps and display the data on online portals to enable customers to make long-term planning decisions with respect to fleet electrification. EDF recommends revising the definition for “Hosting Capacity” under Proposed Rules 14:8-5.1 to “the amount of aggregate generation *and* import capacity that can be accommodated on the electrical power system, or a specific electrical power

⁴ 56 N.J.R. 997

⁵ 56 N.J.R. 1007

⁶ *Id.*

⁷ Cf. Yihao Xie et al., *Near-Term Infrastructure Deployment to Support Zero-Emission Medium- and Heavy-Duty Vehicles in the United States* (ICCT, May 2023).

⁸ Many utilities already provide load hosting capacity maps. For example, Southern California Edison’s Distribution Resources Plan External Portal displays (i) existing generation; (ii) queued generation; (iii) total generation; (iv) projected load; and (v) total penetration in a given service area.

system circuit, without requiring distribution system upgrades.” Additionally, EDF recommends revising Proposed Rules 14:8-5.11(c)(2) to include the following language *in bold italics*:

A recommended and maximum amount of additional export capable generating capacity, defined as the maximum amount of power customer-generator facilities can export, after accounting for any non-exporting technology, that can be accommodated on each nearby open circuit without violating any reliability criteria, including, but not limited to, thermal, steady-state voltage, voltage fluctuation, and voltage protection criteria; ***and maximum amount of additional import capacity, defined as the maximum amount of additional power demand that can be accommodated on any given circuit(s).***

These changes will positively impact interconnection customers, especially for EV MHDV fleet charging, by allowing customers to visualize where both load and generation is materializing and plan investments accordingly.

Thank you for the opportunity to provide these comments, and we look forward to future opportunities to engage in New Jersey’s grid modernization efforts.