STATE OF RHODE ISLAND
OFFICE OF
ENERGY RESOURCES

One Capitol Hill, 4th Floor
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December 23, 2024

Ms. Stephanie DeLaRose, Commission Clerk
VIA ELECTRONIC MAIL
Public Utilities Commission

Re: 24-34-EL Development of Tariffs Applicable to Energy Storage Systems Connected to the Electrical Distribution Systems

Dear Ms. DeLaRosa,

The Rhode Island Office of Energy Resources (OER) is pleased to share the initial comments below in response to the November 22, 2024 Notice of Staff-Led Workshop, Request for Public Comments, and Deadline to Identify Designated Stakeholders in Docket No. 24-34-EL. While these comments do not address every prompt, OER reserves the right to opine on these questions in the future. We look forward to working through these important, complex topics in greater detail in future working sessions and opportunities for comment or testimony. Please find OER's initial comments in line with prompts, in italics, below.

Sincerely,
William Owen
Energy Policy and Regulatory Manager

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Prompts and OER Response

Interconnection Tariff Framework

1. Applicability
   a. What constitutes the distribution system? Some existing generation facilities have purpose-built interconnection that serve no other distribution customers and may never serve additional customers. Are these distribution facilities? Does it matter if those facilities are built to connect directly to the transmission system?
   b. For storage facilities co-located with facilities subject to existing interconnection tariffs and processes, should the existing tariffs control?

OER Response: *Storage facilities that have already been interconnected, regardless of whether they are co-located with existing facilities or not, should continue to be governed by tariffs that controlled when the resources were interconnected. Although we expect limited interest, it may be worth considering a provision that would allow storage to opt into new tariffs. There could be a defined period in which resources could make this election.*

Storage resources that have begun the interconnection process but do not have an executed ISA should have the option to transition to the new tariffs, without giving up their queue position. Again, this could be subject to a migration period.

   c. Should a single interconnection tariff for all export facilities not subject to an existing interconnection tariff be developed, or should the current focus be on storage facilities? For example, examining a tariff for additional facilities, such as microgrids, could be useful, but could be more time consuming and delay the outcome on storage interconnection.

OER Response: *Given the statutory deadline, OER recommends focusing on storage-specific tariffs first. We suggest using the storage tariff development process as a springboard for considering microgrids within the same docket once the storage-specific statutory obligations have been met. Throughout the process, discussions should consider the application of the portions of or the new storage entire tariff to other resource configurations/types (e.g., microgrids), either as a separate tariff or by designing the storage tariff to be easily amended to incorporate other project configurations. OER has particular interest in developing a tariff that governs the development and operation of microgrids.*

3. Study Process
   a. What interconnection studies should be required for energy storage resources?

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i. Should the process allow for the applicant to seek alternative interconnection studies, for example one study without restrictions and one study subject to operational guidelines?

OER Response: *Yes, the process should allow applicants to seek alternative interconnection studies, including studying the resource based upon an operational schedule developed by the applicant. Making more granular, feeder-level data available to interconnecting customers would enable them to propose operational schedules that account for the specific conditions of the portion of the system to which they are interconnecting, reducing the need for multiple study iterations. The BATRIES Toolkit provides guidance on interconnecting storage, including utilizing a Hosting Capacity Analysis (HCA) to facilitate more efficient application processing. Utilities could provide data through a pre-application report or more detailed distribution system maps.*

ii. If alternatives are allowed, how should alternatives be initiated and sequenced?

OER Response: *Receiving utility data upfront would reduce the need for multiple study rounds as developers would be able to propose a schedule based on the current and anticipated constraints on the feeder. Results of interconnection studies should provide explanations for the specific reasons why the resource failed specific screens or other violations that occurred, enabling the interconnecting customer to effectively amend their proposed schedule.*

b. What characteristics of the facilities, such as size, location, and/or configuration, should determine the study requirements?

4. Costs
   a. Should there be a payment schedule for interconnection costs?
      i. What fees can be assessed fairly via a schedule?
      ii. Which fees, if any, should depend on project scope and size?
      iii. Which other interconnection costs should be collected from applicants and how?
      iv. What is reasonable timing for assessment and payment of study costs and construction costs?
   b. Under what conditions, if any, should a storage facility be eligible for a reduction/credit to the interconnection construction costs? (See e.g., Tariff RIPUC No. 2243 Appendix A, Policy 3).

OER Response: *Application and studies fees can be assessed fairly via a schedule. For interconnection costs, we propose that facilities under a specified size threshold (e.g., 25 kW or*

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less, which is consistent with the Simplified Interconnection Process in the Rhode Island Energy Interconnection Tariff) be charged a fixed fee, while larger projects be charged based on actual costs.

5. Other: What other main elements can stakeholders identify that do not fall within the basic tariff structure provided above?

Terms and Conditions Tariff Framework

1. Availability
    a. What types of energy storage resources should be eligible for service under a WDS?

For the purpose of WDS, we suggest defining an ESS as a facility that is capable of absorbing electric energy, storing it for a period of time, and thereafter dispatching the electric energy to participate in the ISO markets in accordance with ISO Tariff, Section III, Market Rule 1. This would be consistent with wholesale distribution service tariffs in other states, including Massachusetts and Connecticut. The recently approved Eversource WDTs in Massachusetts and Connecticut emphasize that WDS can only be used for charging energy intended to be discharged for participation in wholesale markets. This suggests that, as long as the metering configuration allows for charging energy to be segregated, various configurations (including storage co-located with renewables that are separately registered assets) should be eligible to receive service under a WDS. As discussed below, eligibility for service under a WDS should center on wholesale market participation; it should neither require nor preclude participation in state policies/programs/tariffs that are compatible with the intended operation of the system.

    b. What types of energy storage resources should be eligible for service under a retail service tariff?

The vast majority of storage that is not participating under a wholesale distribution tariff will be behind-the-meter (BTM), so a storage-specific retail service tariff would have limited applicability. BTM ESS, including co-located BTM ESS, can be served under existing retail rates. A storage-specific retail tariff could potentially apply to station service, but, again, it's appropriate to serve station service under existing retail rates, especially given that station service usage is relatively limited, in part, due to the treatment of HVAC loads as charging energy.

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This would be consistent with proceedings in neighboring states. In late 2023, the Massachusetts EDCs filed their respective ESS operational tariffs (currently pending DPU approval in Dockets 23-126, 23-117, and 23-115), which apply to distribution system-interconnected ESSs with a nameplate capacity greater than or equal to 250kW. Among other provisions, these state-jurisdictional tariffs establish that such resources should take service under the applicable existing retail rate.

c. Should storage facilities be considered a distinct class of customers because they have unique characteristics, warranting separate cost allocation and rates?
    i. Are these characteristics different for similarly designed wholesale and retail storage systems?
    ii. If storage facilities should be considered a distinct class of customers, should that apply to standalone, generation-sited, or other configurations?

Storage is a unique resource, so the development of rates should be distinct. This includes ensuring the inclusion and exclusion of certain costs as well as designing rates that incentivize and enable storage to operate in a way that minimizes costs (and maximizes benefits) to the distribution system. As an example, metering, transformer, and service connection costs should be excluded from WDS rates, as they will likely be directly assigned to ESS through the interconnection process. From a rate design perspective, OER is supportive of most costs (including minimum system costs) being incorporated into time-differentiated, as-used demand charges. This design aligns with cost-causation principles and provides ESS with an opportunity to minimize its impact on the distribution system as well as the charges it is subject to, benefiting both ESS resources and other distribution system customers.

d. Should the tariff availability depend on concurrent enrollment in net metering, Renewable Energy Growth, or other programs or tariffs?
    i. Should availability allow a wholesale storage facility to be paired with generation participating in the retail market?

As suggested above, tariff availability should not be contingent upon enrollment in other programs or tariffs. WDS should be designed to accurately recover costs from (and, possibly, compensate for benefits) ESS connected to the distribution system. To the extent that existing and future policies, programs, or tariffs may provide incentives to ESS receiving WDS, such incentives should be designed with the financial and operational impacts of WDS in mind. This is consistent with other states with approved WDTs. For example, Consolidated Edison Company of New York's (ConEd) wholesale distribution service tariff (Attachment O to its Open Access

Transmission Tariff) references the ability of customers to take service under its Wholesale Value Stack, defined in leaf 254.1 of ConEd's PSC No. 10 tariff. This enables eligible projects participating in New York's Value of Distributed Energy Resources program (VDER) to participate in wholesale markets, be served through WDS, and still benefit from the state VDER program (specifically, value stack components that the resource is not selling into wholesale markets). Similarly, resources taking service through MA's WDTs are able to participate in state policies such as the Clean Peak Energy Standard.

As a practical matter, WDS may not be compatible with certain tariffs, including net metering. For example, the value in net metering is tied primarily to volumetric rates; OER contends that WDS rates should be primarily demand-based. Net metering credit values (both Renewable Net Metering and Excess Renewable Net Metering Credits) include Last Resort Service rates, a fundamentally retail charge, as a component. This appears to be at odds with ESS receiving WDS which, by definition, will be transacting in wholesale markets. While OER has not undertaken a legal review of the implications of resources receiving service under both net metering and a WDS because of other challenges noted above, there may be legal reasons why WDS and net metering are incompatible with each other.

As noted above, as long as charging energy to be transacted in wholesale markets can be metered separately from co-located resources, co-located resources should be eligible for WDS.

e. Should other facility types, like microgrids, be considered at this time or should a storage tariff be the priority?

See response to the similar prompt in the interconnection tariff section.

2. Costs
    a. Once the interconnection costs for a storage facility have been incurred, do storage facilities generally create ongoing costs to the distribution system?
        i. Operations costs?
        ii. Maintenance costs?
        iii. Ongoing capital investment? If so, related to what (growth, modernization, asset condition, etc.)?

As discussed above, storage will contribute to the ongoing costs of the system, including administrative costs and operations and maintenance costs. The specific operation of the battery determines the extent to which it creates ongoing capital investment costs. OER looks forward to discussing which cost categories should be applied and how they should be recovered in future discussions.

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Separately, in addition to avoiding some of the costs noted above, storage can, in theory, create benefits to the system including, reduced losses, voltage control/power factor correction, and especially deferred or avoided capital costs for infrastructure investments needed to serve peak demand. Most of these benefits can only be realized if resources are incorporated by utilities into system planning. OER is clear-eyed about the challenge in designing a tariff that ensures that these potential benefits are accurately calculated and, ultimately, realized. Still, accounting for these potential benefits in the tariff development process may present opportunities to realize these benefits that don't exist through other potential avenues (i.e., incentive programs).

b. Do responses to part a on cost causation depend materially on any of the following:
    i. Wholesale versus retail participation,
    ii. Metering/wiring configuration,
    iii. Whether the interconnection relies on existing distribution system capacity,
    iv. Timing of charging and discharging,
    v. Electrical location of the facility, or
    vi. Something else?

While OER declines to address each of the categories above in these initial comments, we note the following:

- *Wholesale and retail resources are likely to incur different costs because they are operated differently. Furthermore, WDS should exclude certain costs that would otherwise be included in retail rates, including certain transmission costs, per FERC Order 841.*
- *The specific operation of a battery will substantially impact the type and magnitude of costs (or benefits) it causes. These impacts, however, should be captured in the design of WDS rates, not through different types of rates or tariffs specific to different modes of ESS operation.*
- *The rates should specifically consider service voltage to ensure that, for example, resources taking service at primary voltage do not have costs associated with the lower voltage service. This is consistent with the availability of high voltage discounts for certain existing retail rates, such as G-32.*

c. All retail customers are assessed certain mandatory charges per various laws. Are there any configurations under which storage connected to the distribution system would or should be able to avoid those charges?

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ESS taking service under a WDT should be exempt from state-mandated charges, including system benefit charges. For reference, Central Maine Power has filed a WDAT with FERC (pending approval), which is based upon its state-jurisdictional distribution service rate, but eliminates certain transmission charges and state public policy charges/state-mandated system benefit charges (i.e., the Electric Lifeline Program, Efficiency Maine Trust, and Stranded Costs charges). In Massachusetts, Eversource and National Grid likewise excluded such charges from their proposed WDATs; FERC recently accepted Eversource's proposed tariff, while National Grid's remains pending approval.

Other: What other main elements can stakeholders identify that do not fall within the basic tariff structure provided above?

OER notes the role the future availability of a distributed energy resource management system (DERMS) and other elements of an advanced distribution will play in discussions of storage tariffs, particularly the interconnection tariff. Given that Rhode Island Energy does not have an approved grid modernization plan, we recommend developing a tariff based on currently-available capabilities, acknowledging that the interconnection tariff (and possibly the WDT) should be revised as a DERMS and related functionalities are implemented, as they can (and should) enable more refined study processes and the use of dynamic resource management in lieu of cruder charge/discharge limitations incorporated into ISAs. While OER is not opposed to including provisions that could become applicable when a DERMS and related capabilities are implemented, the tariff should not be designed around these systems. Designing tariffs around capabilities that have neither been implemented nor approved could create uncertainty that would unnecessarily slow the development of storage.