ACT The Alliance for Climate Transition

Via electronic mail

To: Stephanie De La Rosa, RI PUC Commission Clerk
CC: Matt Nelson and Michael Goldman, Apex Analytics / Consultants to the RI PUC
Date: August 4, 2025
RE: Docket No. 23-34-EL - Storage Industry Response to Interconnection Prompts

On behalf of the Alliance for Climate Transition ("ACT"), thank you for the opportunity to provide these written comments to support the design of tariffs in Rhode Island Public Utility Commission ("PUC") Docket 24-34-EL.

The following comments reflect our responses on select questions following the technical meeting on July 23, 2025.

1. If a new ESS-specific interconnection tariff is adopted, this will have implications for existing and future ESS projects. The following lists various potential configurations of ESSs. What configurations should the new interconnection tariff be applicable to? When should the old tariff still apply? Are there other configurations worth noting?
2. Should a new interconnection tariff be developed specific to ESS, or should the existing interconnection tariff be adapted to include ESS?
3. How would this tariff interact (if at all) with ESSs connecting to the transmission system? Would they follow the Open Access Transmission Tariff (OATT) instead? Will this be dictated by the size of the system and whether they intend to participate in the wholesale market?

In response to the question of whether a separate interconnection tariff should be created for ESS, we would caution against this approach due to the potential unintended consequence of creating **competing interconnection queues**.

The introduction of a separate tariff could lead to administrative fragmentation, inefficiencies in queue management, and inequities in project treatment. Rather than establishing a siloed tariff, it may be more effective to **incorporate ESS-specific provisions within the existing interconnection framework**, clearly identifying any process distinctions needed for standalone or paired storage resources. This approach would help maintain a unified queue structure and ensure that projects are evaluated in an integrated and technology-neutral manner.

Creating a separate queue for storage could also disadvantage projects depending on how capacity, hosting, or upgrade costs are allocated. In jurisdictions where dual queues have been implemented, we have seen confusion around how available grid capacity is reserved or shared between queues, often to the detriment of more advanced or shovel-ready projects.

4. The current interconnection tariff uses export capacity to determine the Study Path. Should nameplate or export capacity ratings be used to determine the Study Path?

The Study Path should be determined based on the **maximum export and import capacity**, not nameplate capacity, since these values directly reflect the potential grid impacts of an energy storage system.

Nameplate ratings fail to capture operational controls that limit export and import. Furthermore, interconnection studies themselves should take into consideration those operational controls—such as ramp rates, state-of-charge limits, and export/import ceilings—when evaluating technical screens like voltage impacts, protection coordination, and thermal loading.

Using maximum export and import capacity—as constrained by real-world operational controls—ensures each project is assigned the appropriate study path, leading to a more accurate, efficient, and equitable interconnection process.

5. Is there additional data or information you would like to see in the Pre-Application Report (e.g., 8760 data) to inform ESS siting and design?

Yes, additional data in the Pre-Application Report would be valuable, but **8760 data is likely too granular** to be actionable for most project developers. Its volume and complexity can hinder, rather than help, informed decision-making for ESS siting and design.

A more useful alternative would be to adopt an approach similar to the **IREC 576-point hosting capacity methodology**, which provides 15-minute interval data over a representative week per month. This strikes a balance between data resolution and usability, capturing time-varying grid constraints without overwhelming developers with excessive information.

If this level of analysis is too resource-intensive for the utility, then a reasonable compromise would be to provide **raw 8760 data along with a transparent summary of assumptions and normalization methods** the utility uses in its own studies. This would support consistent interpretation and help developers align their expectations with utility practices.

6. With consideration for the effort it will take to produce new dataset(s), what data would be the most beneficial and is the top priority for you to support ESS

interconnection applications? Which data points, what temporal granularity, and at what point in the application process?

The top priority data for supporting ESS interconnection is not more granular hosting capacity maps, but rather **feeder-level and substation level load profile data**, particularly at the feeder head. This information is far more relevant to evaluating the operational viability of energy storage projects and can help avoid unnecessary study delays or upgrade costs.

If the IREC 576-point format is not feasible, we are open to other practical alternatives. From an ESS developer's perspective, the most useful formats could include: **time-stamped minimum and maximum load values at the substation and feeder head**, a **normalized daily loading profile by season**, and **load profiles for the specific days or months when the feeder or substation is historically constrained**. These types of data would help developers assess both grid headroom and optimal dispatch windows without requiring full 8760 datasets for hosting capacity or even load.

The appropriate point in the process for the utility to provide a **dispatch-limiting schedule** is as part of the **feasibility study** under the standard interconnection process. This creates a structured and cost-effective opportunity to align system constraints with project design early enough to influence key development decisions.

7. How can utilities be assured that the Facility will adhere to an operating schedule? Do adequate rules exist for advanced monitoring capabilities or do these need to be made? What penalties make sense for violating flexible interconnection agreements?

Utilities can be assured that a facility will adhere to an operating schedule by requiring the use of **RTACs in combination with utility-grade relays**, which can be programmed to enforce **dispatch-limiting schedules** in real time. This setup enables automated control of import and export based on predefined schedules, seasonal constraints, or grid conditions.

While some monitoring and control requirements already exist, **additional rulemaking may be helpful** to standardize expectations around telemetry, scheduling enforcement, and utility visibility. The necessary technologies—such as SCADA integration, secure communications, and relay-based enforcement—are already in wide use and can be leveraged effectively.

8. Would it be useful to conduct alternative studies based on different operational scenarios for ESS? How should alternative studies for ESS be initiated?

While conducting alternative studies based on different ESS operational scenarios could offer useful insights, it would likely **overburden the interconnection process** by requiring extensive, project-specific analyses that could slow down the overall queue and delay timelines for all applicants.

A more practical and scalable approach would be to implement **standardized dispatch-limiting schedules**, similar to the method used by **Eversource in Massachusetts**, where the utility defines allowable export windows and constraints based on system conditions. This provides clarity to developers while streamlining utility review and study processes.

We would support this type of approach, as it balances flexibility with feasibility, avoids clogging the queue, and still allows for tailored ESS operation that aligns with grid needs.

9. In the current tariff, are design modifications while remaining in the queue allowable? For ESS, what design modifications (e.g., increase in export capacity, extension of operating profile), if any, would be allowable while remaining in the queue? At what point in the process (e.g., pre-impact study, post-impact study) would they be allowable?

A review of the current tariff suggests there are **no clear guidelines** on how material modifications are defined or handled, which creates uncertainty for developers. From an energy storage perspective, a **general reduction in import/export capacity**—particularly when done to avoid costly upgrades or meet permitting constraints—should not affect a project's queue position.

Certain **technical design changes**, such as updates to inverters, transformer winding configurations, or effective grounding methods, may warrant limited restudy but should be accommodated **without loss of queue position**, provided they don't materially increase system impact. To manage process efficiency, it may be appropriate to **limit such changes to specific windows**.

A reasonable approach would be to allow **all design changes except project size modifications** before any studies begin. **Downsizing of export/import capacity** should be allowed up until the signing of the Interconnection Service Agreement (ISA). Technical changes like inverter swaps or grounding method revisions should be allowed **once**, during the window **between delivery of impact study results and before witness testing**.

10. Should the same cost requirements in the existing tariff apply to ESS? What are the unique elements of storage that should be considered?

The same cost requirements in the existing interconnection tariff should not be applied to energy storage systems (ESS) without modification. As detailed in our prior comments to the Commission in Docket 24-34-EL, the core concern is the **entanglement of interconnection and retail rate design.**

Our comments emphasized that FTM standalone storage systems participating in a **load reducer program** should only be assessed charges like the net metering fee, long-term contracting charge, or transmission charges for the energy consumed on site (i.e. losses and on-site load).

These systems are not typical load customers; they are often connected at the primary distribution level, pay their full interconnection costs upfront, and can reduce ISO-NE monthly transmission and annual capacity peak contributions through targeted dispatch. As such, their contribution to system costs is different and should be recognized through a distinct rate design and cost responsibility framework.

Additionally, ESS should not be penalized or restricted by assumptions that their charging behavior inherently causes cost. In summary, applying existing cost structures to ESS without differentiation fails to account for the unique operational and system benefits of storage. Rhode Island should consider separate treatment for ESS in both interconnection and rate design to ensure fairness, grid alignment, and the realization of the full value these resources offer.

On behalf of our members, thank you again for the opportunity to provide input in this proceeding.

Sincerely,

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