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TARIFF

I. COMMON SERVICE PROVISIONS

References to section numbers in this Part I refer to sections of this Part I, unless otherwise specified.

1. Definitions

“**Generating Facilities**” shall mean Interconnection Customer’s device for the production and/or storage for later injection of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer’s Interconnection Facilities or Storage As Transmission Asset as defined in the Operating Agreement.

OPERATING AGREEMENT

Intra-PJM Tariffs --> OPERATING AGREEMENT --> OA 1. DEFINITIONS

1. DEFINITIONS

Unless the context otherwise specifies or requires, capitalized terms used in this Agreement shall have the respective meanings assigned herein or in the Schedules hereto, or in the PJM Tariff or RAA if not otherwise defined in this Agreement, for all purposes of this Agreement (such definitions to be equally applicable to both the singular and the plural forms of the terms defined). Unless otherwise specified, all references herein to Sections, Schedules, Exhibits or Appendices are to Sections, Schedules, Exhibits or Appendices of this Agreement. As used in this Agreement:

Storage As Transmission Asset:

“Storage As Transmission Asset (“SATA”)” shall mean energy storage equipment connected to or to be connected to the Transmission System and included in the RTEP as a Transmission Facility that is capable of receiving energy from the Transmission System and storing energy for injection to the Transmission System and is operated only to support the Transmission System. SATA is not an Energy Storage Resource; and, therefore, shall not be permitted to participate in the PJM Markets except to the extent necessary to receive energy from the Transmission System and to inject energy into the Transmission System as a Transmission Facility.

Intra-PJM Tariffs --> OPERATING AGREEMENT --> OA SCHEDULE 6

SCHEDULE 6 -REGIONAL TRANSMISSION EXPANSION PLANNING PROTOCOL

References to section numbers in this Schedule 6 refer to sections of this Schedule 6, unless otherwise specified.

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1. REGIONAL TRANSMISSION EXPANSION PLANNING PROTOCOL

1.5.6 Development of the Recommended Regional Transmission Expansion Plan

(g) The recommended plan shall separately identify enhancements and expansions for the three PJM subregions, the PJM Mid-Atlantic Region, the PJM West Region, and the PJM South Region, and shall incorporate recommendations from the Subregional RTEP Committees. Transmission enhancements or expansions may include any facilities that are eligible to be included in the Transmission System as provided for under this Agreement, including SATA. A SATA may only participate in the PJM Markets to the extent necessary to receive energy from the Transmission System and to inject energy into the Transmission System to provide the services for which the SATA was including in the RTEP. Except to the extent necessary to receive energy from the Transmission System and to inject energy into the Transmission System as a Transmission Facility, SATA may not otherwise participate in the PJM Markets unless and until the Tariff or Operating Agreement includes provisions for storage facilities recovering cost-based revenues as transmission assets to also participate in these or other market activities.

1.5.11 Treatment of Storage as Transmission Asset (SATA)

1. A storage facility proposed as Storage as Transmission Asset ("SATA") may be considered for inclusion in the RTEP as a transmission enhancement or expansion.
 - a. In addition to the criteria set forth in the Operating Agreement, Schedule 6, section 1.5.8(c)(1), all SATA proposals submitted in the proposal windows also must contain the following information as part of the proposal:
 - i. Direct capital cost;
 - ii. Expected useful life;
 - iii. Equipment replacement schedules and associated life-cycle costs and other ongoing costs to maintain the SATA at its required capability necessary to address the system needs identified, or otherwise comparable to a traditional wires solution; and
 - iv. Other cost and performance information as the Office of the Interconnection may determine is necessary to compare cost and performance with other proposed solutions to the system needs identified.
 - b. In evaluating the appropriateness of a SATA proposal as an expansion or enhancement to address the posted reliability violations, operational

performance, economic constraints, as well as Public Policy Requirements, the Office of the Interconnection will consider the following factors in evaluating the appropriateness of SATA as proposed to be a transmission solution:

- i. The ability of the proposed SATA to address and solve the posted system reliability violation, operational performance, ~~or economic constraints, as well as Public Policy Requirements~~ in all hours that the system need is determined to exist with a life-cycle cost that is comparable to other proposed transmission solutions, or as otherwise required to address the potential system need after consideration of the comparability in system performance to other proposed solutions, including any non-transmission alternatives.
- ii. The required charge and discharge capability (MWh capability) of the proposed SATA to address the identified system need shall be treated as a Transmission Facility. Any excess ~~charge or discharge MWh capability~~ above the required capability of the SATA shall not be treated as a Transmission Facility and shall not be eligible to participate in PJM Markets until rules for such participation are submitted and accepted by the Commission. ~~The cost of the SATA MWh capability included in the RTEP. Cost recovery under transmission rates relating to the charge and discharge capability as well as the total MWh storage capability~~ is limited to the cost of the SATA's ~~charge and discharge MWh capability~~ required to address system needs and will be pro-rated on that basis if a SATA of higher MWh capability is proposed and selected for inclusion in the RTEP.
- iii. Assurance of sufficient instantaneous energy and/or reactive capability (MWh/MVAr) to charge or discharge energy for any magnitude and duration identified as necessary in the planning study to address the identified system need.
- iv. Life-cycle cost comparisons, including consideration of the duration required to address the system needs, which may be less than the life cycle cost of alternatives that would otherwise be required to address the system needs. Life cycle costs shall include all maintenance costs for the life of the SATA to ensure it continues to address the system needs for which SATA was planned throughout the projected life of the facility.
- v. Demonstrate operating characteristics necessary to automatically respond to system needs, with the automatic response initiated through sensing of conditions requiring the SATA to be located local to the system need. Additionally, provisions for manual operability of the SATA shall be included in the PJM Manuals.
- vi. The SATA must remain connected to the Transmission System while operating to address the system needs for which SATA was planned.

- c. In order to consider potential impacts by the proposed SATA on New Service Requests in the New Services Queue, the Office of the Interconnection will test the models used to identify reliability criteria violations, operational performance or constraints with and without the SATA operating in the manner required for the SATA to address the system needs for which SATA was planned. If such assessment demonstrates that the necessary operating mode of the proposed SATA would cause the need for additional system upgrades, the cost of such upgrades driven by the SATA will be included as part of the SATA proposal.
2. Operating Guides associated with SATA will be developed ~~as needed~~ to provide clear guidance with regard to the use of the SATA.
3. Any changes to the location or capability of the SATA included in the RTEP must be proposed through the RTEP planning process.
4. Credits for Real-Time Energy Market
 - a. A SATA's market activity will be limited to the charging and discharging necessary for the SATA to meet or be ready to mitigate the identified system needs for which the SATA was included in the RTEP.
 - b. A SATA receiving cost-based rate recovery that also receives compensation for market-based rate services during asset charging/discharging shall monthly net its charge/discharge costs and ensure that any such costs are reflected in will be subject to appropriate market revenue crediting through future annual transmission revenue requirements to address prevent for any potential double recovery of costs.

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