

Manual 14H Revisions – Surplus Interconnection Service

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Markets & Reliability Committee

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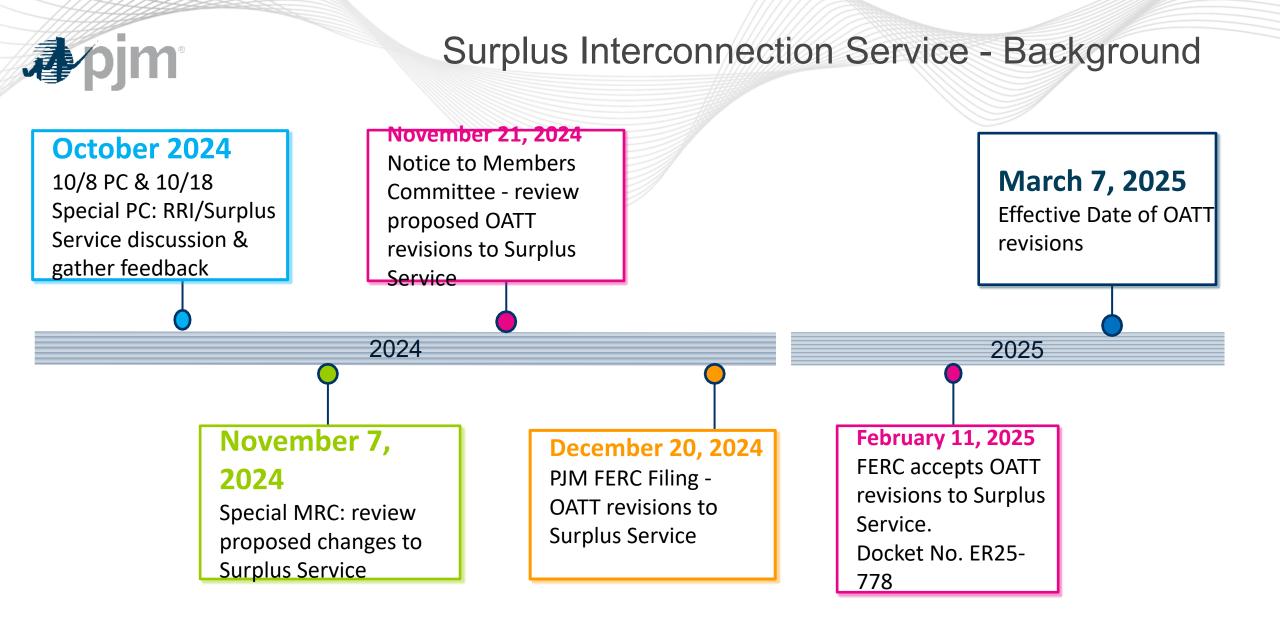
Surplus Interconnection Service - Background

Surplus Interconnection Service (SIS) is the unused portion of service for a facility *that cannot or does not operate 24/7/365.*



Does not increase the maximum net output of the generation fleet, but improves ability to use these limited resources. **Total amount of interconnection service remains the same.**

Expedited process that must remain outside of the interconnection cycle to allow the generator owner, affiliate or non-affiliate to install generation resources to use the unused service. Outside the cycle because a Surplus Interconnection Request does not trigger any new network upgrades.





Summary of OATT Revisions

OATT Part VIII, Subpart E, section 414 – Surplus Interconnection Service

- Eliminate restrictions on Surplus service when 1) the service would affect the determination of Network Upgrades for projects already in the interconnection process or 2) result in material adverse impacts on short circuit capability limits, steady-state thermal and voltage limits, or dynamic system stability and response
- Changes to allow Project Developers to apply for Surplus Interconnection Service from planned as well as existing generating facilities
- Changes to permit Surplus Interconnection Service even in circumstances in which additional physical interconnection facilities are needed to accommodate that service



M14H revisions needed to conform the manual to the OATT revisions

M14H sections identified for revision:

Section 1.2.5 Surplus Project Developer Section 12 Surplus Interconnection Service

Note 1: M14H revisions on the following slides are targeted to highlight the substantive changes made to conform to the OATT revisions Note 2: clarifying edits and corrections were also made to Section 12



- Section 1.2.5 Surplus Project Developer
 - Reflect that a *planned* Generating Facility can now also request Surplus service in addition to an already interconnected or *existing* Generating Facility:

A Project Developer whose Generating Facility is already interconnected to <u>or has executed</u> (or requested to file unexecuted) an Interconnection Service Agreement or Generation Interconnection Agreement to interconnect to the PJM Transmission System or one of its affiliates, or an unaffiliated entity that submits a Surplus Interconnection Request to utilize Surplus Interconnection Service within the Transmission System in the PJM Region.



- Section 12.1 Overview of Surplus Interconnection Service
 - Changes to reflect that a *planned* Generating Facility can now also request Surplus service in addition to an already interconnected or *existing* Generating Facility:

Surplus Interconnection Service requests can be made by an existing Project Developer or one of its affiliates whose Generating Facility is already interconnected to the PJM Transmission System, or has executed (or requested to file unexecuted) an ISA or GIAone of its affiliates, or by an unaffiliated Project Developer. that submits a Surplus Interconnection Request to utilize Surplus Interconnection Service within the Transmission System in the PJM Region.



- Section 12.1 Overview of Surplus Interconnection Service
 - Changes to the eligibility criteria to approve a Surplus Interconnection Request, per new OATT rules
 - Clarification to permit Surplus Interconnection Service even in circumstances in which additional physical interconnection facilities are needed to accommodate that service

In order for <u>a</u> Surplus Interconnection Request to be approved, there must be no new Network Upgrades required to accommodate the request, including no additional scope for planned Network Upgrades. Additional Interconnection Facilities that are necessary to accommodate the request are permitted. he following criteria must be met:

- 1. There are no new Network Upgrades required to accommodate the request.
- 2. There are no impacts affecting the determination of what upgrades are necessary for the Project Developers or Eligible Customers in any Cycle that has begun Phase I.
- 3. There are no material impacts on the Transmission System with regards to short circuit capability limits, steady-state thermal and voltage limits or dynamic system stability response.



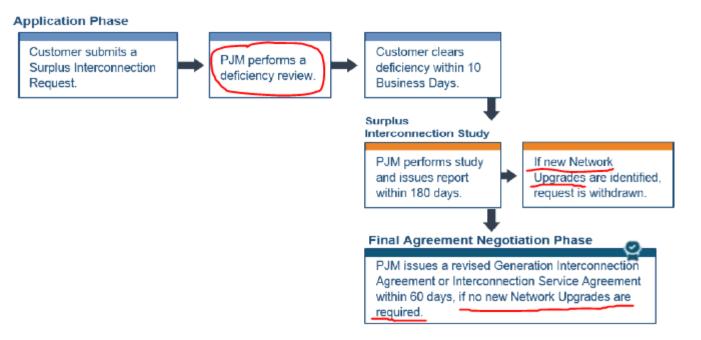
- Section 12.1 Overview of Surplus Interconnection Service
 - Removing examples of various types of Surplus requests which may or may not be eligible
 - These examples were provided under the old Surplus eligibility rules
 - These examples are no longer applicable or necessary under the new OATT Surplus eligibility rules as all these various types of examples would now be eligible for Surplus Service
 - Removing eligibility details which impacted Surplus eligibility under the old OATT rules and which no longer apply under the new OATT rules:

The following impact the eligibility for surplus interconnection service:

- 1. The parallel/simultaneous versus independent (one at a time) operation of the existing and surplus unit affects the short circuit and stability material impacts.
- 2. The material impacts consider not only thermal capability but also short circuit capability and dynamic capability.
- Thermal capability of the PJM Transmission System is evaluated at various seasonal conditions (summer peak, light load and winter peak) which may have different fuel based dispatch assumptions.
- 4. For battery storage, whether or not the battery will charge from the grid.



- Section 12.2 Surplus Interconnection Request Process
 - Exhibit 33 process flow diagram edits to 1) reflect deficiency review details outlined in OATT and 2) to reflect no new Network Upgrades are allowed
 - Revised process flow diagram shown here, highlighting the boxes which were edited:





- Section 12.2.2 Surplus Interconnection Study Agreement Requirements
 - Added clarifying detail addressing that the existing or planned Generating Facility must have an executed (or filed unexecuted) ISA or GIA prior to submitting a Surplus request, per OATT
 - Identification of the existing-Generating Facility that is subject to an ISA or GIAalready interconnected to the PJM system. The ISA or GIA must be fully executed, or filed unexecuted, prior to submitting the Surplus Interconnection Request. An existing Generating Facility that does not have an active ISA or GIA should follow the Non-Cycle Process outlined in Section 14: Converting a Two-Party Agreement to a GIA;

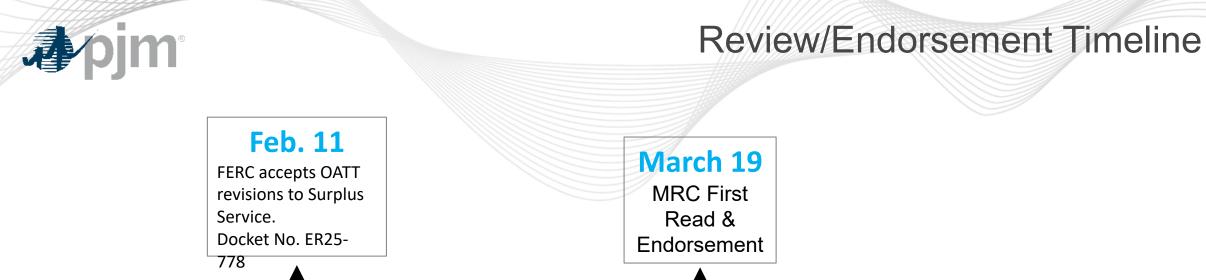
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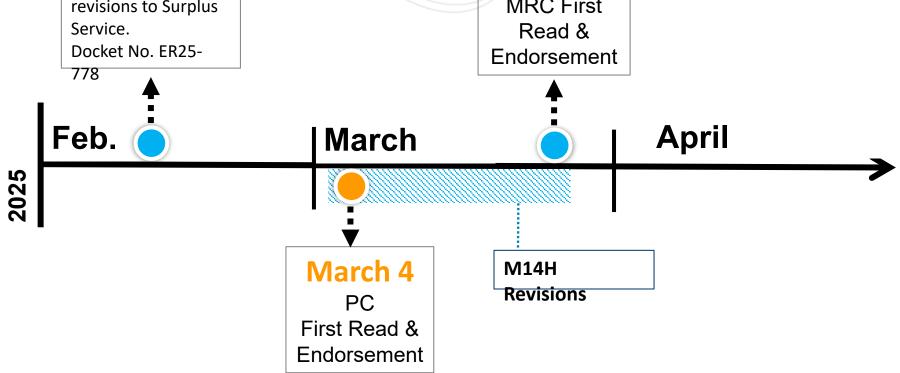
- Section 12.2.3 Surplus Interconnection Request Deficiency Review
 - Revisions to deficiency review period to align with OATT
- Section 12.2.4 Surplus Interconnection Study
 - Adding clarifying details to the Surplus Interconnection Study in regards to:
 - Scope of reliability studies performed and the study criteria applied
 - Specifying which study models will be used for the Surplus study
 - Contingent Facilities

The surplus interconnection study scope consists of reactive power, short circuit/ fault duty, stability, steady-state (thermal/voltage) analyses, and any other studies deemed appropriate by PJM. The scope of the studies and the study criteria used for Surplus Interconnection Requests is consistent with that used in the Cycle Phase I, Phase II, and Phase III System Impact Studies, as described in M14H sections 4.3, 4.5, and 4.7.

PJM will study the Surplus Interconnection Request on the latest Phase III study model for the Cycle which has most recently started Phase III. This applies to all study models (Load Flow, Short Circuit and Stability).

Contingent Facilities, if any, would be identified during the Surplus Interconnection Study in the same manner they are identified in the Cycle Phase I, Phase II, and Phase III System Impact Studies (see M14H sections 4.2.3 and 4.2.3.1) and will be listed in the revised ISA or GIA.









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