



DERs Interconnection Package/Proposal Matrix Review

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- In review of the current DERS Interconnection Solutions Matrix, two themes identified
 - Items whose potential solutions are already captured in PJM's current process
 - Items whose proposed solutions cannot feasibly be captured in PJM's process
- Review of these design components

Status Quo	Package A
<p>Customer determines which attachment to fill out.</p> <p>Multiple generation request forms: Att BB: 10kW or less inverter based (energy only) Att Y: 2 MW or less synchronous or up to 5 MW or less inverter based connecting to FERC jurisdictional facilities (energy only) Att N: Any size generation connecting at any location. (capacity)</p>	<p>Allow multiple technologies behind the same meter (POI) to submit one application (and deposit)</p> <p>Allow multiple similar resources within the same zone to submit one application (Tariff change)</p>

- Item 1 is allowed under current process
 - Fields exist in Queue Point to indicate mixed generation configurations, submit data as one application
- Item 2 poses concerns in accuracy, complexity, soundness of studies—one facility per interconnection request

Status Quo	Package A
-	<p>Apply at less than max (nameplate) capability if DER will never inject at their full rated capability.</p> <p>For verification, solutions such as timers, meters at POI that communicate with inverter, and software-controlled systems will be acceptable.</p>

- Allowed in current process, units can apply requesting any level CIRs and MFO below nameplate
- Gross energy output is used in multiple facility contingency and short circuit studies

Information Requested per Tariff Applications:

- Attachment N:
 - **“Total Requested Maximum Facility Output (as defined in the PJM Tariff) in Megawatts”**
 - **“Total Requested Capacity Interconnection Rights (as defined in the PJM Tariff) in Megawatts”**
- Att. Y, Att. BB:
 - **“Maximum Physical Export Capability Requested”**

Status Quo	Package A
Unused Feasibility Study deposit cannot be rolled over to System Impact Study deposit and will not be returned until 90 days after execution of Impact Agreement	Allow rollover of deposit to next study AND refund unused balance of deposits within several weeks after close of study.

- Non-refundable portion rolled into next study
- Refundable portion returned per timing of invoices received from TOs
 - Typically ~90 days after study issue date

5.1.2 New Services Request Feasibility Study Cost Responsibility

"...PJM will hold 10% of every deposit as non-refundable. The non-refundable portion is held to offset restudy costs associated with a Developers decision to withdraw a project from the queue.

If an Interconnection Customer does not withdraw its project, the non-refundable deposit will become refundable after commencement of commercial operations."

5.2.1 Impact Study Agreement and Cost

"After receipt of the Generation or Transmission Interconnection Feasibility Study results, if the Developer decides to proceed, an executed System Impact Study Agreement must be submitted to PJM with **the** required deposit as specified in [Section 204.3A of the Tariff](#).

Section 204.3A of the Tariff

“Provided that the maximum total deposit amount for a System Impact Study shall be \$300,000 regardless of the size of the proposed Customer Facility, a System Impact Study deposit shall be submitted to Transmission Provider, as follows:”

- “...20 MW or greater, **a deposit of \$500 for each MW** requested; or”
- “...2 MW or greater, but less than 20 MW, **a deposit of \$10,000**; or”
- “...less than 2 MW, **a deposit of \$5,000.**”

“10% of each total System Impact Study deposit amount is non-refundable”

Manual 14G Sec. 5.3.1: Impact Study “...if the standard Tariff deposit is less than the amount shown in the table, the Developer shall provide PJM the difference between the value in Table 5.3.1-2 and the standard Tariff deposit... Note however, that a Developer is responsible for actual costs of the study...”

- *See: Table 5.2.1-2 System Impact Study PJM Expected Costs*

Manual 14A Sec. 5.2.1: Feasibility Study “...and the standard Tariff deposit is less than the amount shown in the table, the Developer shall provide PJM the difference between the value in Table 5.2.1-2 and the standard Tariff deposit.. Note however, that a Developer is responsible for actual costs of the study...”

- *See: Table 5.3.1-2 Feasibility Study Expected Costs for Attachment N submitted Small Generation Interconnection Requests*

3e. Third-Party Interconnection Studies

Status Quo	Package A
Third party engineers can perform facilities study if on PJM's approved contractor list	Allow developers to hire third party engineers to do feasibility, system impact, and facilities studies. Provide access to PJM's and TO's system models. To be determined: allocation of risk for flawed studies.

- Not feasible under current process

Status Quo	Package A
<p>Applicability of federal vs. state jurisdiction as described in Manual 14G</p>	<p>Establish a procedure to determine the FERC-jurisdictionality and communicate to all parties when a generator interconnection request is made. Ensure that one party is responsible for determining jurisdiction of interconnection.</p>

- Jurisdiction determination is discussed at kick-off call, based on date of queue entry; final POI determination “locks-down” jurisdiction
- Pre-Application Process for facilities < 20 MW

OATT 109 Pre-Application Process

“109.4 Jurisdictional Review

Within five (5) Business Days following the receipt of a completed formal written request, submitted along with a \$300 deposit paid by the prospective Interconnection Customer, the **Transmission Provider will evaluate whether the proposed project contemplates FERC jurisdictional service and/or will be interconnected with FERC-jurisdictional facilities.**

If it is determined that the proposed project does not contemplate FERC-jurisdictional service and/or will not be interconnecting with FERC-jurisdictional facilities, the Transmission Provider will so inform the prospective Interconnection Customer and refund the \$300 deposit.”

Status Quo	Package A
Honored for QFs (connected through PURPA), not used otherwise.	Don't restudy resources already approved for injection (both QFs and other resources like NEM).

- If non-QF, studies of injection impact on transmission system are required
- Distribution-level injection was not previously studied for transmission system

1.4 Interconnection Procedures for FERC Jurisdictional Facilities and Non-FERC Jurisdictional Facilities

“If a generation resource that desires to be designated, in whole or in part, as a Capacity Resource or Energy Resource is proposing to interconnect to facilities that are not under FERC’s jurisdiction (except those entities described in Section 1.5), **PJM must still complete studies to verify no impacts to the PJM system.**”

The generation resource owner will be **required to enter the non-FERC jurisdictional entity’s interconnection process in parallel to PJM’s New Services Queue.**”