

RWE

PJM IPRTF – RWE Proposal

RWE Renewables Americas

10/29/2021

Interconnection Process Main Goals for Interconnection Customers (“IC”)

Predictable schedule and COD



- Long process that can take five years or more from queue entry to Commercial Operation.
- Need to align this schedule with permitting, procurement, financing, construction etc.
- Firm deadlines with offtake and to be eligible for tax credits.

Economic Upgrades and Budget



- A project cannot fully know its network upgrades and costs at queue entry.
- However, we expect clear, fair and reasonable cost allocation and cost causation rules.
- If upgrades bring other benefits (public policy support, economic or reliability benefits) cost allocation rules should reflect that.

Quality Interconnection Product and Service



- Studies need to be accurate and replicable.
- Projects needs to connect reliably and with minimized risk of congestion and curtailment.
- Network upgrades, if needed, should be identified as part of the interconnection process.
- Uncertainties addressed before signing an ISA.

PJM Proposal

RWE acknowledges PJM's proposal gives a very solid starting point

- RWE is mostly supportive to the PJM proposal. The cluster construct addresses many of the stakeholder concerns and is a step in the right direction.
- Our input is focused on incremental improvements in several areas, in order to increase certainty:
 1. Site Control language alignment
 2. Affected Systems studies coordination
 3. ISA execution timeline
 4. Study methodology and coordination
 5. Public Policy and SAA alignment

Improvement Area 1



Site Control Requirements need alignment with Transmission Owner input and consistency on term requirements

Current PJM proposal: *At IC Decision 1, provide 50% of site control for customer interconnection facilities and interconnection switchyard (if applicable) and provide 100% of site control for generation facility site. At Decision Point 3 the lease terms need to be additional 5 years from the last day of Phase 3.*

Proposed RWE Improvements:

- Interconnection Facilities 50% should be moved at IC Decision Point 2 (TO input may not be available at Decision Point 1).
- Adjust lease term requirement to 3 years* from last day of Phase 3. The 3-year* duration is consistent with current PJM requirements.
- Needs further clarification on what changes are permitted vs. not permitted.
- RWE strongly opposes the idea of security or cash deposits in lieu of site control.

*Considering two-year timeline for completing queue studies

Improvement Area 2



Affected Systems study coordination remains a major area of concern

Current PJM proposal: *During Phase 2 PJM will alert the customer whether they are required to enter into an Affected System Study Agreement with the neighboring entity. At Decision Point 2, Customer provides evidence of entering into an Affected System Study Agreement with a neighboring entity if required by this decision point or within 60 days of being notified by PJM, whichever is greater. At Phase 3, Final Affected system study results.*

Proposed RWE Improvements:

- Current PJM proposal puts the burden of affected systems on the Interconnection Customer and the timeline is highly uncertain. ICs to put high money at risk at Decision Points 1 and 2 without understanding the affected system risks.
- We advocate a similar process to what MISO does, where, by Decision Point 2 the RTO/ISO coordinates and obtains the appropriate Affected Studies.
- There is not an easy fix, but we would like to see PJM discussing its reform with neighbors before filing with FERC, and where possible, align to existing processes.

Improvement Area 3



ISA Execution Timeline. Status Quo is the preferred option.

Current PJM proposal: *IC needs to execute the Interconnection Service Agreement 15 business days from issuance.*

Proposed RWE Improvements:

- Interconnection Customers need enough time for Developers' Boards to approve once final ISA agreement is tendered for execution.
- RWE advocates for the Status Quo (60 days).
- As an option PJM could keep the 60 days and make the Transmission Owner execution concurrent within that period.

Improvement Area 4



Cluster Study Methodology should be further discussed, and energy deliverability outlet issues properly addressed.

Current PJM proposal: *Status Quo in the latest Matrix. New Generation Deliverability criteria being discussed in the Planning Committee.*

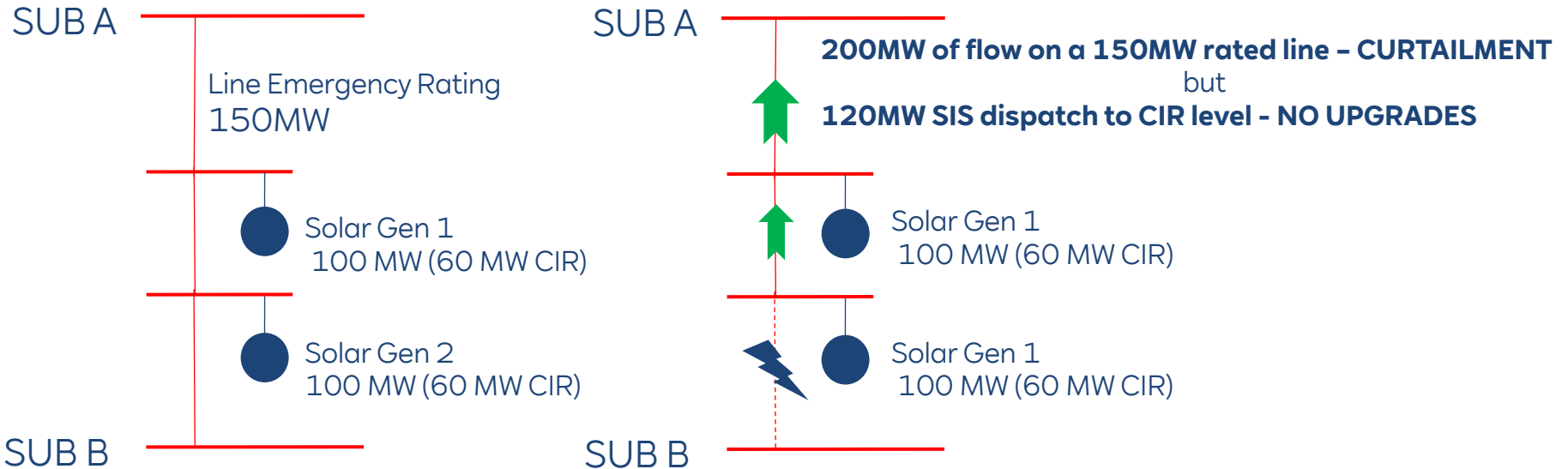
Proposed RWE Improvements:

- RWE would like to understand what the cost implications of the new Generation Deliverability criteria are, as well as understand when PJM would apply it once approved.
- With the current analytical methodology, there is a concern that some necessary outlet network upgrades in solar generation pockets are not being identified (see next slide).
- PJM does provide energy deliverability information on its System Impact Study. At a minimum, we would like to see this information being provided to Interconnection Customers at each Decision Point.

Summer Peak Study Methodology

Current dispatch methodology to CIR levels may create congestion problems on solar generation pockets

- PJM's Summer Peak study dispatched solar at CIR level and solar is not ramped up on Generation Deliverability studies. The result is that outlet upgrades to address N-1 violations at full energy level are not identified in the SIS.



Improvement Area 5



Queue reform and Public Policy alignment should be further explored in the IPRTF packages

Current PJM proposal: *Not discussed in the IPRTF*

Proposed RWE Improvements:

- Clarify geographical and electrical definition of the study clusters during package discussion.
- RWE would like to understand PJM's approach to coordinate study clusters with Public Policy and/or State Agreement Approach initiatives.
- Specific questions remain on:
 - Modeling of SAA upgrades once approved
 - Impact on existing queued projects
 - Eligibility of new network upgrades identified in a cluster to be designated as Public Policy and/or be considered under a SAA.



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Thank you

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