Avoiding RMRs in PJM

Solution Options for Alternatives
Presented by Illinois CUB, NRDC, and Roselle

Deactivation Enhancements Senior Task Force October 21, 2025

Overarching Goals

- 1. Avoid reliability must-run arrangements (RMRs) by evaluating cost-effective alternatives, including generation, while maintaining reliability.
- 2. Evaluate potential future reliability risks caused by deactivations.
- 3. Develop tools for PJM and states to enhance planning and avoid RMRs.
- 4. Balance economic decision-making for deactivating generators with reliability & cost-effective alternatives for RMRs.

Value proposition of our solution options

- Competitive solicitation of alternatives to an RMR creates potential for more cost-effective solutions to reliability issues.
- Allows for a wider range of technologies.
- Provides states with the tools to ensure that state-supported resources address reliability needs driven by state laws.

Process Overview

- 1. PJM evaluates retirements for reliability issues, modeled after NYISO's "STAR" process, quarterly.
- 2. If reliability violations are identified, two paths for alternatives solicitation:
 - **a. PATH 1: Reliability issue is due to generator with a deactivation notice:** PJM conducts an alternatives solicitation (see slides 6&7).
 - b. PATH 2: Reliability issue is not due to a deactivation notice, but due to state law: PJM assists the state with an alternatives solicitation (see slides 9&10).
- 3. Selected alternative solutions must satisfy the reliability need, come in-service by a specified date, and be more cost-effective than an RMR. Alternative solutions:
 - a. Could include generation, transmission (including storage as a transmission asset), and advanced transmission technologies. Includes portfolios.
 - b. Are permitted a limited expedited interconnection study process to ensure timely in-service date (see slide 10)

To allow time for this solicitation, we believe deactivation notice period must be extended to 2 years.

PJM to adopt version of NYISO "STAR" Analysis

Quarterly short-term assessments of reliability (STAR) that look 5 years ahead & identify potential reliability violations driven by deactivations.

STAR models anticipated deactivations that occur across the study horizon, including:

- Announced deactivations
- Deactivations required by state laws, as identified by the regulator

Considers load, transmission, and resource mix projections.

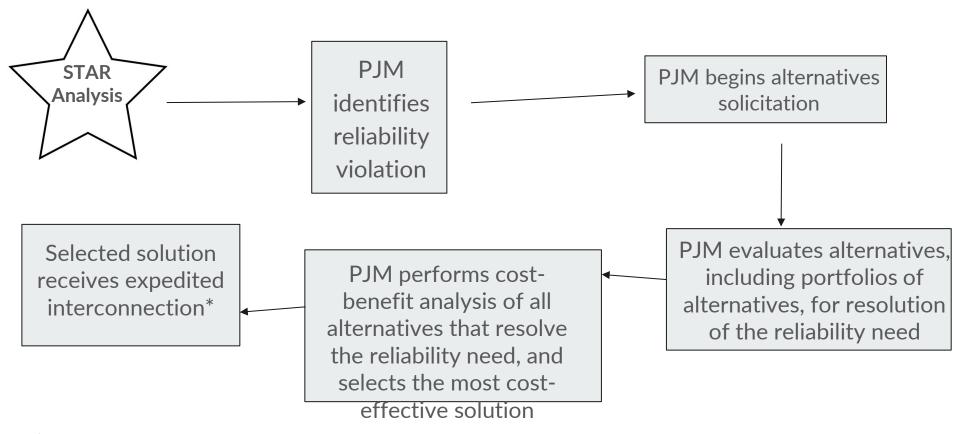
Incorporates and replaces existing deactivation analysis.

Path 1: PJM Alternatives Solicitation

If STAR analysis of an **announced deactivation** shows a reliability violation, PJM holds a solicitation to select alternative resources, including portfolios of resources, that can:

- 1. Resolve the reliability need(s) in a timely manner.
- 2. Be more cost-effective than a potential RMR.

Path 1: PJM Alternatives Solicitation Visual



^{*}Expedited interconnection only available if no network upgrades are required (match Surplus Interconnection rules)

Does PJM have authority to run such a solicitation?

- Yes.
- Same as PJM's authority to offer RMRs
- Contractual structure would mirror NYISO tariff: PJM can solicit voluntary offers to operate to meet a reliability need, and enter into contractual commitments to do so

Path 2: State option for solicitation with PJM advice

States may provide input into STAR process on known retirements due to state laws and regulations.

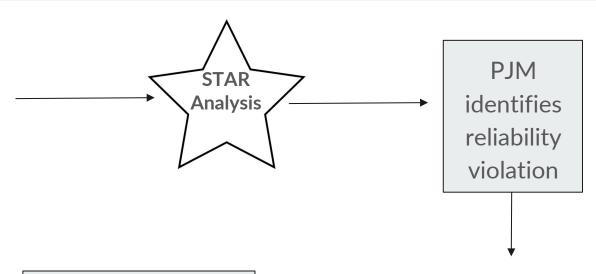
Where a reliability violation is identified in the STAR process, for example due to a state law, states may seek to procure alternative solutions to avoid the reliability violation.

PJM's limited role:

- Provide advice and technical support to a requesting state to ensure that state-procured resources solve the reliability need
- Provide a pro forma agreement by which state-procured alternatives may voluntarily commit to operate so as to solve the reliability need

Path 2: State option for Solicitation Visual

States provide input to PJM on known retirements due to state laws and regulations



State uses own process to procure alternative. PJM provides technical support to ensure alternative meets the reliability need.

PJM prepares operational pro forma which the state can use to evaluate alternatives

Limited Interconnection for Reliability Resolution (LIRR)

Problem: New generation may need an expedited path to interconnect to avoid the RMR. Existing CIR transfer rules may not resolve this issue. Proposal:

- 1. New expedited interconnection study process for limited use case: new generation entering service through a PJM or state procurement to resolve a reliability issue and/or avoid an RMR
 - a. 90 day study process
- 2. CIRs from retiring resource are released to either a) resources in the queue that can resolve the reliability need, b) winner(s) of PJM solicitation, or 3) winner(s) of state solicitation if using *pro forma*

Limited Interconnection for Reliability Resolution (LIRR)

If retiring generator will cause a reliability issue, CIRs will be released on deactivation date.

If resources already in the queue can resolve the reliability issue in whole or in part, they receive the CIRs.

If no resource in the queue can resolve the reliability issue, the CIRs become available to the resource(s) PJM selects to resolve the reliability violation.

Other proposal components

Immediate Needs process: PJM provides cost benchmarking analysis comparable to MISO's Transmission Cost Estimation Guide. The immediate need designee must propose a project budget that stays within the benchmark or provide public documentation for any departures. Cost overruns are capped at 10% of the benchmarked project budget.

Market participation: Cost recovery for a generation alternative will be negotiated similar to an RMR agreement. The alternative will be modeled as a price-taker in the capacity market and any market revenues will go towards the RMR cost. After the transmission solution is in place and RMR payments cease, eligible resources will be allowed to participate in PJM's markets.

Questions?

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