

Generation Deactivation Education

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- Deactivation Process and Timeline
- Analytical Studies
- Mitigation – Current Process
- Notification timeline to Generator Owner
- Identify Reliability-Must-Run (RMR) Unit
- DESTF Phase 1 Updates
- PJM Documentation and links

Deactivation Process and Timeline

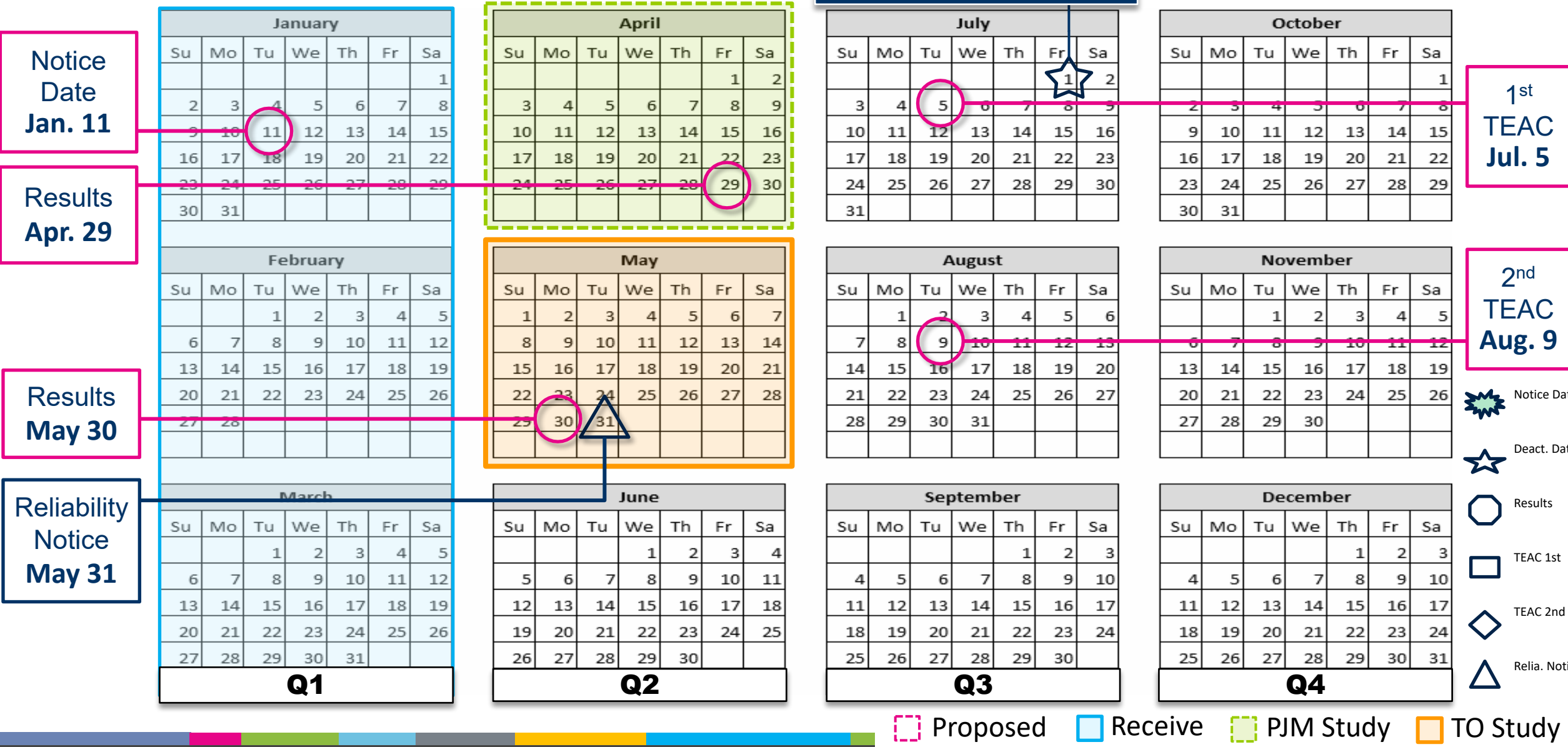
PJM will study four times per year (quarterly) for all notices received in the quarter prior to the study commencement date:

- Currently governed by OATT, Part V
- PJM observes notification period each quarter.
- PJM study period commencements: January 1st, April 1st, July 1st, and October 1st, for the previous quarter
- PJM studies as a batch (holistic);
- Reliability Notifications will be made by end of February, May, August, and November respectively.
- PJM and TOs use the study period to build cases, run analyses, identify violations and upgrades, review construction schedule, look for operational measures.
- Analysis results, any recommended transmission upgrades, their associated construction schedule and estimated cost, as well as whether or not a generator should be considered Reliability-Must-Run (RMR) unit, are communicated in subsequent TEAC meeting(s)

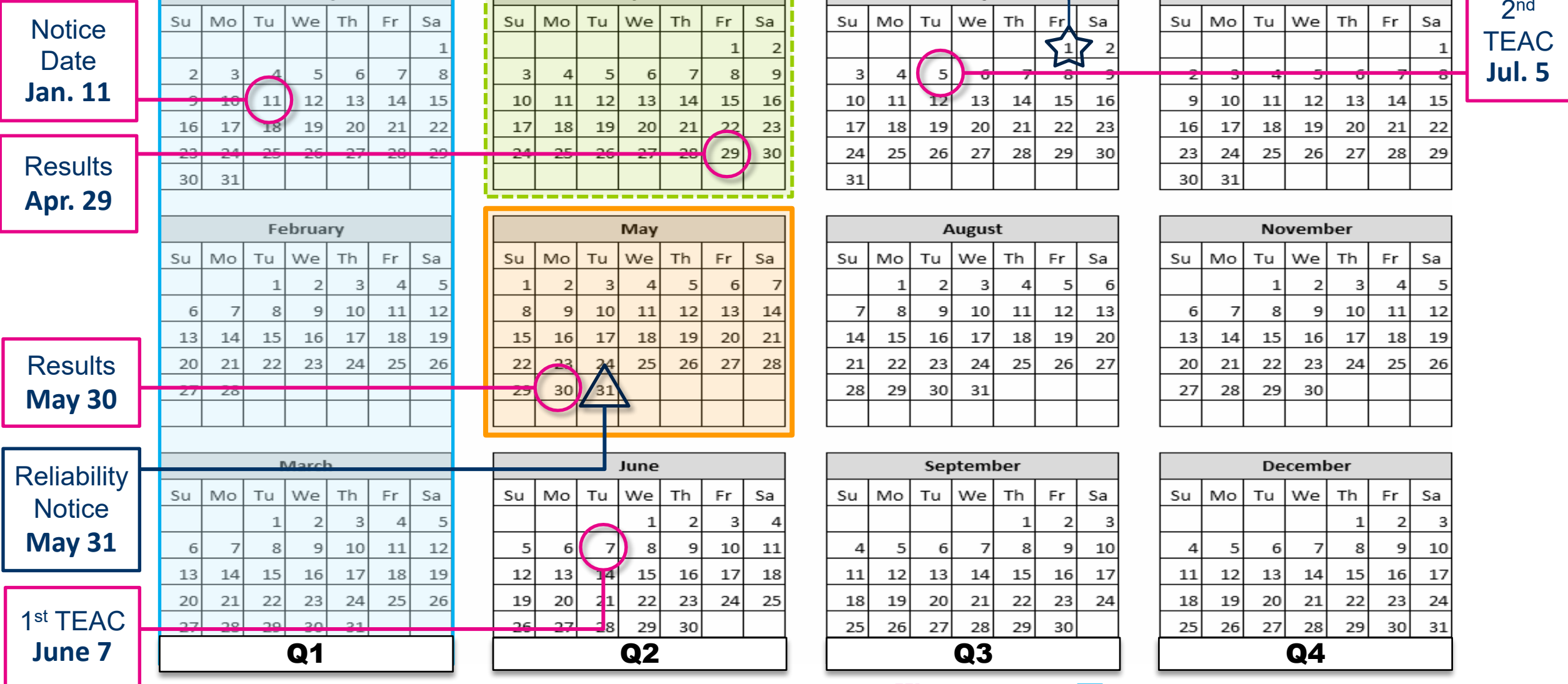
To request a deactivation, a Generation Owner, or designated agent, must submit notice:

	A	B	C	D
Between:	January 1 and March 31	April 1 and June 30	July 1 and September 30	October 1 and December 31
To Deactivate:	July 1 or later	October 1 or later	January 1 of the subsequent year or later; or	April 1 of the subsequent year or later.

Deactivation Timeline – Q1 Example (no RMR)



Deactivation Timeline – Q1 Example(RMR)



PJM will study the holistic impact of announced deactivation each quarter by comparing reliability performance on selected base case(s), with and without the contribution of announced deactivations units.

Reliability tests includes but not limited to:

- N-1-1 (Thermal)
- N-1-1 (Voltage deviation + Voltage Magnitude)
- Generation deliverability
- Load deliverability
- N-1 (Thermal, Voltage)

Reliability performance criteria is the same with Manual 14B and Manual 3

Non-wire alternatives available to consideration:

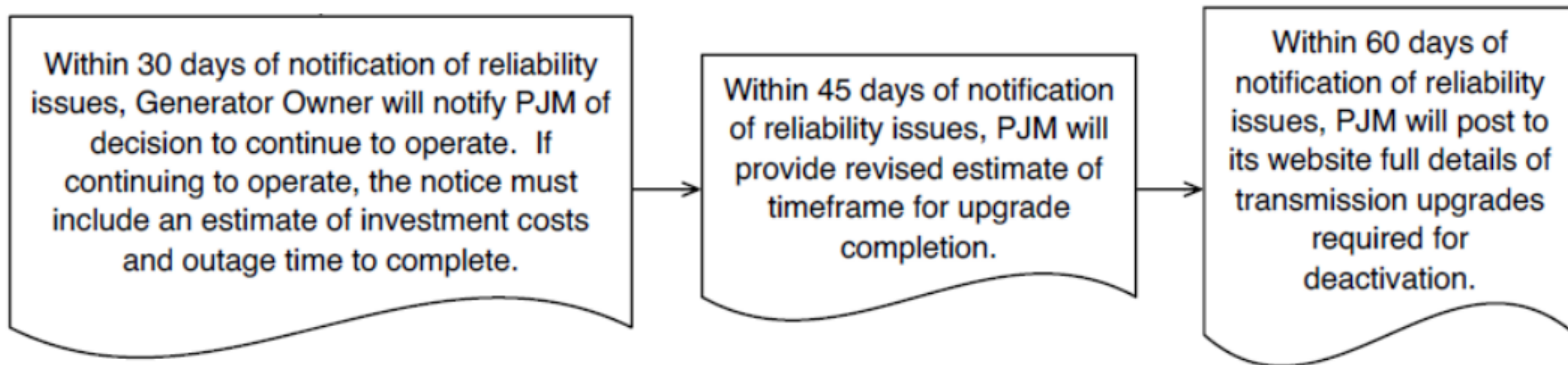
- Proposed-ISA projects up to the requested deactivation date are modelled in the starting power flow case, even if they are not in service yet.
- PJM will determine whether interim operational measures exists and practical
- Load shedding beyond Demand Response not considered an acceptable interim operation measure.

PJM will notify impacted TO members of the study results and provided associated analytical files for their review/confirmation of the identified violations.

TO have 1 month to work with PJM to develop and analyze mitigation / solution, provide schedule and a cost estimate of mitigation

PJM will work with TO to refine solution and cost

Notification Timeline to Generator Owner



Tariff requires Reliability Notifications by end of 2nd month of each quarter (Feb., May, Aug., Nov.) respectively to Generation Owner (or designee)

From initial result notification, PJM and TOs have an additional 45 days to optimize solutions and schedule.

- PJM defines "Immediate-need Reliability Projects" as those that are required to be in service within three years or less to address a reliability need.
- In the event that not enough time exists to hold a competitive proposal window, PJM follows the Immediate need process, working with the incumbent TO to identify the best solution

Identifying Reliability-Must-Run(RMR) Units

- PJM does not approve deactivations, but rather identifies whether the requested deactivation date could lead to reliability impacts on the system.
- When PJM has determined a proposed deactivation(s) would adversely affect the reliability of the Transmission System, and upgrades cannot be completed by proposed deactivation date, and no operational measures are available, PJM requests the Generation Owner to extend operations of the deactivating unit(s) until necessary upgrades are completed.
- The Generation Owner may elect to support system reliability by operating until necessary network upgrades are completed.

The Generation Owner has two options for continued operations:

1. file its proposed Cost of Service Recovery Rate (CSRR) at FERC; or
2. receive the Deactivation Avoidable Cost Credit (DACC) as provided in the Tariff.

- At the TEAC Deactivation Notice second read, PJM will identify PJM requested extended operations.
- PJM will announce at subsequent TEAC(s) after the FERC accepted the filing from the Generation Owner (CSRR or DACC).

- In January 2025, PJM MRC approved DESTF Phase 1
- PJM has filed changes with a requested acceptance date of 5/1/2025
- Phase 1 updates include:
 - Notification Time: Units that plan to participate in RPM must provide at least 12 months' notice prior to desired deactivation date
 - Compensation Mechanism, and Modeling concepts remained status quo with slight changes
 - Transparency: Improvements above status quo

PJM OATT, Part V

<https://agreements.pjm.com/oatt/4241>

PJM Manual Library

<https://www.pjm.com/library/manuals>

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Generation Deactivation Education



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V1 - 4/3/25 – Original version posted.

Appendix

Notification Time

- Units that plan to participate in RPM must provide at least 12 months' notice prior to desired deactivation date
- Units that do not plan to participate in RPM due to deactivation must provide notice consistent with existing RPM must offer exception process
- Existing quarterly deactivation implementation process will continue

Compensation Mechanism

- Status Quo (maintain the Cost of Service Recovery Rate filing option and the existing Deactivation Avoidable Cost Credit formula) with the following changes to the Deactivation Avoidable Cost Credit:
 - Removal of the \$2 million cap on Project Investment
 - Limit the yearly adder that is applied to Project Investment to 10%
 - Removal of the clause that triggers the credit to be paid using the Daily Deficiency Rate rather than Deactivation Avoidable Cost Rate (DACR) if $\text{DACR} + \text{Applicable Multiplier}$ is greater than the Daily Deficiency Rate.

Transparency

- Improvements on top of Status Quo to make additional details including deactivation response letters, IMM market power letters, and RMR arrangement notifications available to stakeholders
- Publish estimated RMR revenue allocation zonal rate for impacted zones

Modeling

- Status quo. No changes to Planning and Markets modeling of RMR units