

RTEP Structure & Timing Approach & Clarifications

Summary:

The purpose of this document is to provide supporting information for the RTEP Structure & Timing Diagrams. The first section describes the approach for evaluating the structure and timing of the RTEP Process. The subsequent sections include details and clarifications about the current 12-Month RTEP Cycle and the proposed 18-Month RTEP Cycle. The numbered notes in the RTEP Cycle sections correspond to numbers on each of the diagrams.

Approach:

The RTEP Structure & Timing diagrams include key interdependencies based on inputs and outputs to the RTEP process. All planning processes with possible relationships to the RTEP were evaluated. Key parts of each planning process as it relates to the timing and structure of the RTEP process are included.

Processes that are constrained by duration, start date, or end date are marked on the diagram (see Border Legend) and are detailed in the “Clarifications” sections below. Some of the processes are tied to specific dates or periods of time by the PJM Operating Agreement (OA), Open Access Transmission Tariff (OATT), or Manuals. Dates or lengths of time that are not mandated in the governing documents are depicted as departmental goals driven by the timing, interdependencies, and deliverables of key RTEP-related processes.

The Current 12-Month diagram depicts the how the 2021 RTEP Cycle occurred in 2015 and 2016. The Proposed 18-Month diagram presents the RTEP Cycle timing in future years. The solid color boxes represent pieces of the RTEP Cycle of focus, and the faded color boxes represent overlapping cycles. For example, the solid color boxes in the Current 12-Month diagram represent the 2021 Cycle and the faded boxes represent overlap from the 2020 and 2022 Cycles.

Key Differences between Current 12-Month RTEP Cycle and Proposed 18-Month RTEP Cycle:

The RTEP is currently conducted as an annual cycle that begins in January and ends in December. Although the RTEP Cycle is 12 months, RTEP work is done beyond the calendar year. PJM is proposing to change the start and end dates of the RTEP Cycle to reflect the full workflow, effective for the 2023 RTEP Cycle:

- The current 12-Month RTEP Cycle begins in January and ends in December. The proposed 18-month RTEP Cycle will begin with the 2023 RTEP Case Build in September 2017 and end with the February 2019 Board meeting.
- The change to the RTEP Cycle timing addresses the timing needed to evaluate Transmission Operator (TO) Criteria and Lower Voltage Facility Projects and supports improved alignment with the new Interconnection Analysis modeling schedule
- Proposal Windows for Short-Term Reliability Projects: In the proposed 18-Month Cycle, multiple proposal windows are replaced with one 45-day Window for technical and financial proposals. Contingent upon modeling timing, the 2023 RTEP Proposal Window will open in June 2018.

Clarifications: Current 12-Month Cycle Diagram

Stakeholder Forums, Recommendations & Reports

1. *TEAC Meetings*: Currently meets monthly. Exact frequency of meetings is not a governing document requirement. Schedule 6 Section 1.3 (b) of the OA only specifies that the TEAC “meet periodically.”
2. The *Sub-Regional RTEP (SRRTEP)* reviews enhancements at the local level (230 kV and below). SRRTEP meetings occur separately from the TEAC three to five times per year.
 - a. Schedule 6 Section 1.3 (f) of the OA requires the SRRTEP Committee to meet once per planning cycle to identify violations and potential solutions. It also requires an additional SRRTEP Committee meeting once (does not clarify time frame) to review criteria, assumptions, models, constraints, public policy, etc.
3. *Notification of recommendations 30-day prior to the board*: The Schedule 6 Section 1.5.6 (e) of the OA requires that the TEAC should provide opportunity for stakeholders to collaborate on the preparation of the recommended enhancements and expansions.
4. *Timing of Project Recommendations to the Board*:
 - a. Currently, the majority of TO Criteria projects are brought to the July Board Meeting, with overflow projects going to the October Board Meeting. The majority of window projects are brought to the October & December Board Meetings for approval, with overflow projects going to the February Board Meeting of the next year.
5. *TEAC Whitepapers*: RTEP documentation is derived from requirements under the PJM Operating Agreement, Schedule 6, Regional Transmission Expansion Planning Protocol, Section 1.6. There are no specific requirements for the TEAC Whitepaper in the OA, but PJM’s practice has been to release TEAC Whitepapers 30-days of board approvals of RTEP projects.

Resource Adequacy Planning

6. The *Load Forecast and Demand Response Forecast* must be complete by mid-December in order to complete the PJM Capacity Emergency Transfer Objective (CETO) analysis by the end of December. The Reliability Pricing Model (RPM) Analysis is dependent on this timing.

Interconnection Analysis

7. Under the current process, the *RTEP Case Clean-Up* should be complete by the beginning of March to accommodate the timing needed for the interconnection process. The implementation of new queue dates will push this timing one month earlier, and future RTEP Case Clean-ups should be complete by the beginning of February. The proposed 18-Month RTEP Cycle is structured to accommodate this change.

Transmission Planning

8. The *Multiregional Modeling Working Group (MMWG)* is external to PJM, but coordinates with the PJM Modeling & Support group.
9. The *Machine List* must be complete by mid-December in order to complete the RPM CETO by the end of December.
10. Today, the *RTEP Case Clean-Up* must be complete by the beginning of March for queue modeling preparations. The new queue timing will push this timing one month earlier. The proposed 18-Month RTEP Cycle is structured to accommodate this change.
11. The *RPM Case Build* must be complete by the end of December in order to complete the RPM CETO by the end of January.
12. The *RPM Analysis* must be complete by the end of January. The results of this analysis are part of the RPM Base Residual Auction (BRA) Planning Parameters that are posted on the February 1 prior to the BRA (Manual 18, Section 5.2).
13. Indicates that projects approved by the Board are accounted for in the RTEP Case Build, RTEP Case Clean-Up, and RPM Case Build.
14. *RTEP Window Proposal Period*: Currently, PJM opens one to three 30-day RTEP reliability proposal window(s).
 - a. The Schedule 6 Section 1.5.8 (c) of the OA requires a duration of 30 days for Short-term Project proposal windows. The durations may be changed under the specific circumstances specified in the OA.

Market Efficiency

15. The *24-month Market Efficiency Cycle and Long Term Window* are defined in Section 1.5.7 and Section 1.5.8 (c) of the OA.
16. The *Market Efficiency Case Build* must be complete and the cases must be posted by the end of September to satisfy Joint Operating Agreement requirements for stakeholder coordination.

Clarifications: Proposed 18-Month Cycle Diagram

Stakeholder Forums, Recommendations & Reports

1. *TEAC Meetings*: Currently meets monthly. Exact frequency of meetings is not a governing document requirement. Schedule 6 Section 1.3(b) of the OA only specifies that the TEAC “meet periodically.”
2. The *Sub-Regional RTEP (SRRTEP)* reviews enhancements at the local level (230 kV and below). SRRTEP meetings occur separately from the TEAC three to five times per year.
 - a. Schedule 6 Section 1.3(f) of the OA requires the SRRTEP Committee to meet once per planning cycle to identify violations and potential solutions. It also requires an additional SRRTEP Committee meeting once (does not clarify time frame) to review criteria, assumptions, models, constraints, public policy, etc.
3. *Notification of recommendations 30-day prior to the board*: The Schedule 6 Section 1.5.6 (e) of the OA requires that the TEAC should provide opportunity for stakeholders to collaborate on the preparation of the recommended enhancements and expansions.
4. *Timing of Project Recommendations to the Board*
 - a. Overflow projects from the previous planning cycle will be brought to the February Board Meeting for approval.
 - b. The majority of projects that are TO Criteria, Lower Voltage Facilities, or TO Simple Upgrades will be brought to the July Board Meeting. The schedule will include time for posting of LVF violations for comment prior to development of solutions. Overflow of these projects will be brought to the October Board Meeting for approval.
 - c. The majority of window projects will be brought to the October & December Board Meetings for approval, with overflow projects going to the February Board Meeting of the next year.
5. *TEAC Whitepapers*: RTEP documentation is derived from requirements under the PJM Operating Agreement, Schedule 6, Regional Transmission Expansion Planning Protocol, Section 1.6. There are no specific requirements for the TEAC Whitepaper in the OA, but PJM’s practice has been to release TEAC Whitepapers 30-days of board approvals of RTEP projects.

Resource Adequacy Planning

6. The *Load Forecast and Demand Response Forecast* must be complete by mid-December in order to complete the PJM Capacity Emergency Transfer Objective (CETO) by the end of December. The Reliability Pricing Model (RPM) Analysis is dependent on this timing.

Interconnection Analysis

7. Under the current 12-Month process, the *RTEP Case Clean-Up* should be complete by the beginning of March to accommodate the timing needed for the interconnection process. The implementation of new queue dates will push this timing one month earlier, and future RTEP Case Clean-ups should be complete by the beginning of February. The proposed 18-Month RTEP Cycle is structured to accommodate this change.

Modeling & Support

8. The *Multiregional Modeling Working Group (MMWG)* is external to PJM, but coordinates with the PJM Modeling & Support group.
9. The *Machine List* must be complete by mid-December in order to complete the RPM CETO by the end of December.
10. The goal of the 18-month cycle is for the *RTEP Case Build* to be complete by the end of January. Historically this has extended into February, March, and April, putting additional pressure on the RTEP Process.
11. The *RTEP Case Clean-Up* must be complete by the beginning of February for queue modeling preparations by Interconnection Analysis
12. The *RPM Case Build* must be complete by the end of December in order to complete the RPM CETO by the end of January.

Transmission Planning

13. The *RPM Analysis* must be complete by the end of January. The results of this analysis are part of the RPM BRA Planning Parameters that are posted February 1 prior to the BRA (Manual 18, Section 5.2).
14. Indicates that projects approved by the Board are accounted for in the *RTEP Case Build*, *RTEP Case Clean-Up*, and *RPM Case Build*.
15. *RTEP Window Proposal Period*: In the proposed 18-Month Cycle, multiple short-term project proposal windows are replaced with one 45-day Window for technical and financial proposals. Contingent upon modeling timing, the 2023 RTEP Proposal Window will open in June 2018.
 - b. The Schedule 6 Section 1.5.8 (c) of the OA requires a duration of 30 days for Short-term Project proposal windows and 120 days for Long-lead and Economic-based Enhancement or Expansions. The durations may be changed under specific circumstances specified in the OA.
16. *Evaluate Window Proposals*: Majority will take place between June & August

Market Efficiency

17. The *24-month Market Efficiency Cycle and Long Term Window* timing will remain as defined in Section 1.5.7 and Section 1.5.8 (c) of the OA.
18. The *Market Efficiency Case Build* must be complete and the cases must be posted by the end of September to satisfy Joint Operating Agreement requirements for stakeholder coordination.