Capacity Market Reform

Issue Source

Issues identified by stakeholders in the Capacity Market Workshops[1] as well as a letter issued by the PJM Board of Managers (Board Letter) on April 6, 2021 urging stakeholders to address a series of topics related to the capacity market.

Issue Content

Stakeholders undertook resolution of issues related to the Minimum Offer Price Rule (MOPR) using the Critical Issue Fast Path (CIFP) process, which culminated in a vote by the Members Committee endorsing a proposal which went into effect by operation of law effective September 29, 2021. This issue charge is intended to address the remaining issues identified as a result of the Capacity Market Workshops as well as topics identified in the Board Letter.

Scope and Key Work Activities

The scope of work will focus on the list of the issues identified by stakeholders at the Capacity Market Workshops as well as topics identified in the Board Letter.

- Performance Assessments
- Capacity Resource Qualification and Accreditation
- Procurement Process, Timeframes, and Levels
- Capacity Resource Obligations[2]
- Supply-Side Market Power Mitigation Rules
- Fixed Resource Requirement Rules
- Procurement of Clean Resource Attributes and Inclusion of the Social Cost of Carbon in Markets

While the review at the RASTF will be holistic, the solution for any of the above topics may be advanced to a vote alone or in conjunction with other topics[3]. Check-ins will be scheduled to assess if any proposed solutions for the topics should be advanced for an earlier implementation date (with consideration of timing for pre-auction activities, FERC filings, etc.).

Key Work Activities (KWAs) are listed below with education and discussion to begin in December 2021. It's expected that the topics for many of these KWAs will be interrelated and discussed in parallel. Where applicable, education will include benchmarking with other ISO/RTOs.

[1] A series of nine Capacity Market Workshops were held between February and October, 2021.
[2] This topic includes Phase 2 work from the Capacity Capability Senior Task Force focused on energy market must offer requirements for limited duration resources (https://www.pjm.com/-/media/committees-groups/task-forces/ccstf/2021/20210922/20210922-item-02a-issue-charge.ashx), as well as the review of operational requirements for such resources that was agreed to by the Members Committee (https://www.pjm.com/-/media/committees-groups/committees/mc/2020/20200917/20200917-item-01-alternate-motion-amendment-to-joint-stakeholder-package.ashx).
[3] Such a vote of the RASTF will move solutions forward to the Markets & Reliability Committee (MRC) on the topic at hand based on content of the matrix.

- KWA#1: Determine whether a forward procurement of clean resource attributes should be pursued, and investigate the inclusion of the Social Cost of Carbon in PJM markets.
    - Discuss the potential benefits and drawbacks of a forward procurement of clean resource attributes.
    - Discuss the potential benefits and drawbacks of including the Social Cost of Carbon in wholesale markets (capacity, energy and ancillary services, or some combination)
    - PJM and stakeholders present different high-level solution options for consideration and to inform discussions of market design directions and next steps.
    - Decide on the initial direction for future activities by the end of Q1 2022[4].

- KWA#2: Determine the types of reliability risks and risk drivers to be considered by the capacity market and how they should be accounted for.
    - Provide education on current risks considered in PJM's resource adequacy planning and where they are accounted for.
    - Discuss additional drivers of reliability risks that should be considered and how, or, existing ones that should be considered differently.
    - Consider the impact of seasonal differences in risk and how those should be handled.
    - Determine the set of risks to be considered in the capacity market and where they should be accounted for (i.e., capacity target level or accreditation level)

- KWA#3: Determine the desired procurement metric and level to maintain the desired level of reliability.
    - Provide education on the current reliability metric and desired level for the RTO and LDAs.
    - Discuss the pros and cons of this level and metric including discussion of alternative levels and metrics including but not limited to:
        - Loss of Load Expectation (LOLE)
        - Hourly Loss of Load Expectation (LOLH)
        - Expected Unserved Energy (EUE)
    - Review analysis regarding the impact of seasonal differences on various reliability metrics and any benefits or drawbacks to setting the desired metric and level by season.
    - Determine the metric and level that meets the desired reliability level for the RTO and LDAs.

- KWA#4: Determine the performance expected from a capacity resource.
    - Provide education on the current performance requirements of a capacity resource.
    - Examine the key elements of performance assessments under the Capacity Performance (CP) framework including triggers of Performance Assessment Intervals (PAIs), excusals for non-performance, penalty / bonus rates, and stop-loss provisions for effectiveness in incenting the investment and performance needed for reliability.
    - Explore opportunities to provide more transparency and predictability in performance expectations.
    - Discuss what, if any, alternative frameworks for performance should be considered and the potential benefits and drawbacks of such framework against the current design.
    - Determine the desired performance expected from capacity resources.

[4] A separate issue charge for the appropriate stakeholder venue will be developed for consideration by the MRC if the determination results in additional scope.

- KWA#5: Determine the qualification and accreditation of capacity resources.
    - Provide education on the current qualification requirements and accreditation calculations for capacity resources.
    - Discuss the appropriate metric to accredit capacity resources and how it should be calculated if applicable. Relevant metrics include but are not limited to:
        - Equivalent Demand Forced Outage Rate (EFORd)
        - Effective Load Carrying Capability (ELCC)
        - Equivalent Availability Factor (EAF)
    - Discuss the desired qualification requirements for capacity resources including but not limited to winterization, dual fuel, maximum start time limitations, etc.
    - Consider any benefits and drawbacks to changes in qualification and accreditation under a seasonal vs. annual market design.
    - Determine the desired qualification requirements and accreditation methodology.

- KWA#6: Determine the desired obligations of capacity resources[5].
    - Provide education on the current obligations of a capacity resource including the energy and ancillary service must offer requirements.
    - Discuss whether, and how, obligations should vary by season.
    - Where necessary, clarify the existing obligations of a capacity resource.
    - Determine any desired changes in the obligations for capacity resources.

- KWA#7: Determine if there are needed enhancements to the capacity procurement process.
    - Provide education on the current procurement process
    - Discuss potential improvements to the procurement process and any enhancements that may be needed to support changes in the capacity product(s) to be procured in the auctions

- KWA#8: As applicable, determine any remaining design details for a seasonal capacity market construct not addressed in other KWAs.
    - Discuss any outstanding design elements that require enhancements under a seasonal construct.
    - Determine the appropriate solutions for those design elements.

- KWA#9: Determine if supply-side market power mitigation rules in the capacity market need to be enhanced.
    - Provide education on the current market power mitigation rules including but not limited to:
        - Capacity market must offer
        - Market Seller Offer Cap
    - Determine enhancements necessary to the MSOC for capacity resources to address existing issues and align with design elements determined in other KWAs.
    - Determine whether a capacity must offer requirement is appropriate for all qualifying capacity resources (i.e. evaluate whether categorical exemptions are appropriate for certain resource types).

[5] Includes CCSTF Phase 2 scope.

  - Determine any other enhancements to supply-side market power mitigation rules that are appropriate

- KWA#10: Determine if the Fixed Resource Requirement (FRR) rules need to be synchronized with any changes made.
  - Provide education on the current FRR rules.
  - Based on potential changes to the RPM, identify opportunities to align RPM and FRR rules.
  - Determine any additional changes to FRR rules that may be appropriate.

Out of Scope:

1. Topics related to the Minimum Offer Price Rule (MOPR) in Phase 1 beyond those needed for consistency with the work in this Issue Charge.
2. Elimination of the Fixed Resource Requirement option
3. Removing DR as a supply resource

Related Topics Being Discussed Elsewhere:

1. CIRs quantities for ELCC resources (PC)
2. Reactive Power Compensation (unless consolidated from the MIC)
3. Rules for capacity participation by Distributed Energy Resources. Discussion on this is occurring at the Distributed and Inverter-Based Resources Subcommittee and is the subject of a PJM compliance filing that is due on February 1, 2022.
4. Reliability Products and Services initial assessment (OC)
5. Quadrennial Review (MIC)
6. Load Forecast (LAS)
7. Potential CETO/CETL reform (potential to be addressed at the PC)

Expected Deliverables

1. Education and analysis as needed concerning items identified in the scope of work.
2. Proposed revisions to PJM's Tariff and the Operating Agreement, resulting in a FERC filing.
3. Proposed revisions to PJM Business Practice Manuals.

Decision-Making Method

Tier 1 consensus. It is expected that many topic areas will have individual matrices and proposals developed.

Stakeholder Group Assignment

The Resource Adequacy Senior Task Force (RASTF).

Expected Duration of Work Timeline

Initial discussion, education and assessment will begin immediately. It is expected that issues will be worked on varying timelines. It is expected that all RASTF work will be completed by Q4 2023 in time for implementation in the 2027/2028 Base Residual Auction to be held in May 2024. However, any solution to a germane topic area or group

of areas may be advanced earlier than that as decided at the scheduled check-ins[6]. Monthly meetings are anticipated (more or less frequently as needed).

Start Date	Priority Level	Timing	Meeting Frequency
10/22/2021	☒ High ☐ Medium ☐ Low	☒ Immediate ☐ Near Term ☐ Far Term	☐ Weekly ☒ Monthly ☐ Quarterly

Charter

(check one box)

☐	This document will serve as the Charter for a new group created by its approval.
☒	This work will be handled in an existing group with its own Charter (and applicable amendments).

More detail available in M34; Section 6

[6] Such a vote of the RASTF will move solutions forward to the MRC on the topic at hand based on content of the matrix.