

Market Efficiency Process Enhancement Task Force Phase 2

Brian Chmielewski
Manager, Market Simulation
April 11, 2019
Planning Committee

www.pjm.com PJM©2019



- Market Efficiency Process Enhancement approved in January 2018
 Address challenges and opportunities for improvements to the Market Efficiency process since implementing Order 1000 processes in two phases
- Phase 2 key discussion areas:
 - Market Efficiency mid-cycle update
 - Market Efficiency project reevaluation process
 - Capacity benefit calculation
 - Regional targeted Market Efficiency projects

February Non-binding Polling Results Summary

26 respondents representing 164 companies

52%

Continue Discussions Now

Open concerns:

- 1. Capacity Benefits
- 2. Historical Drivers

Project Reevaluation Criteria

94%
Shift long-term window timing

93%

Shift ME Cycle timing 34%

1.25 B/C ratio energy only

44%

Historical congestion through RTMEP

Package A

Addition 1

Addition 2





| Design Component | Status Quo | Proposed Change | Justification |
|----------------------------------|-------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Project Reevaluation Criteria | Evaluated annually to ensure these projects continue to be economical | Add criterion to dictate when reevaluating a project is required (see appx.) | Added structure will enhance transparency and efficiency of the reevaluation process |
| Long-term Window | November-February | January-April | Shifted long-term window back two months will better align with MISO processes |
| Mid-cycle Update | Post-window mid-cycle base case updates prior to the evaluation of Market Efficiency window proposals | Mid- and post-window (based on a Jan-Apr window timing) to reduce the impacts of annual mid-cycle update | Shift into the end of April will allow project proposers extra time to analyze their projects on a retooled case, complete with some aspects of the midcycle update, prior to a final submission |



Questions/Comments by March 31st

Email questions to MarketEfficiencyGroup@pjm.com

Endorsements at April PC/MRC/MC

- Reevaluation changes will be effective for 2019
- Window/cycle changes will be effective for 20/21 Long Term Window
- OA endorsement at April MC for August 1, 2019 effective date (exact TBD)



Appendix

www.pjm.com PJM©2019



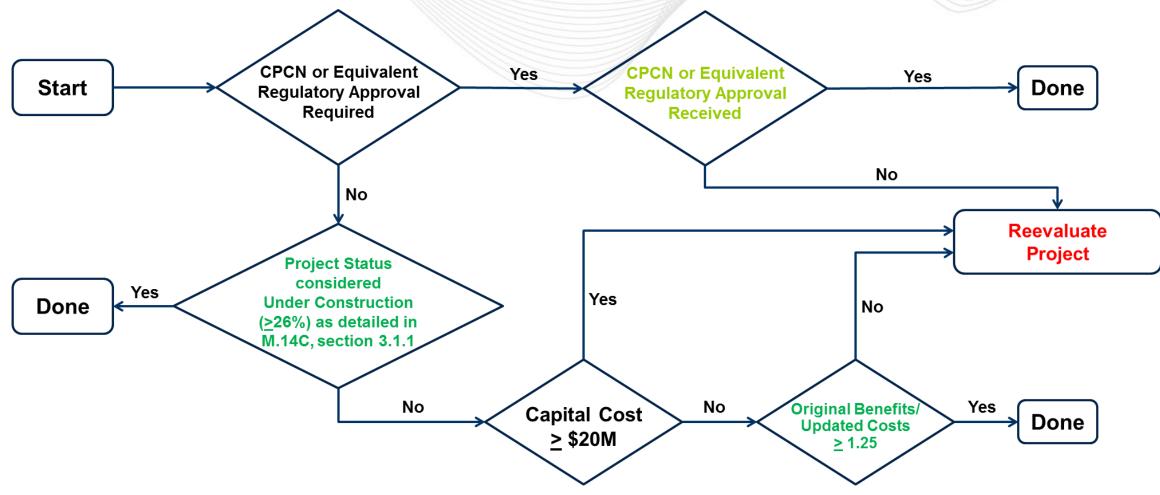


| Design Component | Status Quo | Modification | Justification |
|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Project Reevaluation Criteria 65% | Costs and benefits of new economic-based enhancements or expansions to be evaluated annually to ensure these projects continue to be economical | 1. As applicable, PJM will not reevaluate any project once the Certificate of Public Convenience and Necessity CPCN or equivalent state approval is received (approved). If no CPCN or equivalent state approval is required PJM will not reevaluate any project once the project has completed 26% of its construction phase as described on PJM transmission construction status page. 2. For approved Market Efficiency projects with a capital cost under \$20M: if the updated costs causes the B/C ratio to fall below 1.25, given the original benefits, PJM will reevaluate the need for the project. Projects with a capital cost under \$20M will not be reevaluated if the updated costs do not cause the B/C ratio to fall below 1.25, given the original benefits | Due to the increasing number of projects PJM must reevaluate and the ambiguity involved with how and under what assumptions projects are studied, PJM recommends added structure to enhance transparency and efficiency of the reevaluation process |

www.pjm.com 7 PJM©2019



Proposed Project Reevaluation Criteria



Note: PJM reserves the right to reevaluate any project.



Package A Proposal Cont.

| Design Component | Status Quo | Modification | Justification |
|-----------------------|-------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Long-term Window 94% | November-February | January-April | Shifted long-term window back two months will better align with MISO processes, where both RTOs will post economic drivers in the January timeframe |
| Mid-cycle Update 93% | Post-window mid-cycle base case updates prior to the evaluation of Market Efficiency window proposals | Mid- and post-window (based on a Jan-Apr window timing) to reduce the impacts of annual mid-cycle update | Shift into the end of April will allow project proposers extra time to analyze their projects on a retooled case, complete with some aspects of the mid-cycle update, prior to a final submission |



Open Stakeholder Concerns

| Design Component | Status Quo | Modification |
|----------------------------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RTMEP Process 44% | N/A | Address historical congestion through a new annual process that uses the same criteria and approach used in the current Interregional TMEP process |
| B/C Ratio Passing Threshold 34% | 1.25 | 1.25 B/C threshold (separately) on either energy benefits (for a targeted energy congestion driver) or capacity benefits (for a targeted capacity congestion driver) Projects that address both can be given preference in the selection process, similar to other desired attributes (resiliency, etc.) |