Long-Term Regional Transmission Planning (LTRTP) Manual Review Overview

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Background

- LTRTP discussions with stakeholders throughout 2022 and 2023
- LTRTP M14B and M14F first read at January Planning Committee
  - See updated Issue Charge
- Additional page turn meetings held on 1/23, 1/26 and 2/12 in response to feedback from stakeholders

LTRTP Concepts Requiring Update

- Timeline 2 Year process → 3 year process
- Long-Term (LT) vs Near-Term (NT) framework
- Development of additional LT powerflow cases for years 8 and 15
- Update LT analysis procedures
  - –DFAX extrapolation to linear interpolation
  - –Expansion of analysis to include limited N-1-1 and voltage studies
- Update language that defines qualifications for LT needs
- Additional content in establishing assumptions (e.g. capacity expansion, public policy, etc.)
- Outline process for collecting state policy data
- Acceleration of LT projects/Informing NT Projects

PJM M14B and M14F Sections

- M14B: PJM Region Transmission Planning Process
  - Process Introduction/Planning Assumptions and Model Development (Section 1.1, 1.3)
  - Reliability Planning/Public Policy Planning (Section 2.1, 2.1.4)
  - Long Term Reliability Analysis (Section 2.3.14)
  - Scope/Procedure and Testing Methods (Attachment B, C.4)
- PJM Manual 14F: Competitive Planning Process
  - Proposal Window Type and Duration/Frequency of windows (Section 1.1)
  - Required Data (Section 4.2)
  - Proposal Economic Review (Section 8.1.2)
  - Public Policy Project Evaluation (Section 8.3)
  - Decisional Process (Attachment C)

Feedback from February Page Turn

Feedback	Consideration
Regarding Public Policy considerations section, where do PPO make it into the LTRTP process	Summary of PPR and PPO Modeling in LTRTP Scenarios clarifies (next slide)
Clarifications on capitalization of PPR/PPO	PJM Manual 14B Updates
Manual language on p. 27 seems to restrict policy scenarios to only one scenario – Suggest using use “at-least”.	PJM believes “one or more” is appropriate
Suggest characterizing Base Reliability as business as usual instead of “minimum set of inputs…”	PJM updated language to remove “minimum set of inputs”
Specify that sensitivity studies could consider additional load	PJM added “sensitivities will consider different levels of load"
Does Order 1000 require PJM to consider all PPR when planning for reliability? How do the Reliability and Policy scenarios differ in their modeling of PPRs?	Summary of PPR and PPO Modeling in LTRTP Scenarios clarifies (next slide)
Will PJM show what portion of policy targets is achieved with the queue in the Base Reliability scenario?	Summary of PPR and PPO Modeling in LTRTP Scenarios clarifies (next slide)

Summary of PPR and PPO Modeling in LTRTP Scenarios

Model Input	Base Reliability Scenario	Policy Scenario	Other Scenarios Sensitivities**
Load	PPRs and PPOs modeled in Annual Load Forecast	PPRs and PPOs modeled in Annual Load Forecast	Possibly other PPOs
Retirements	PPR	PPR	Possibly PPOs
Replacement Generation	Generation Interconnection Requests *	PPR	Possibly PPOs

Notes: ** Additional replacement generation beyond Interconnection Requests may be necessary to achieve resource adequacy*
*****Scenario sensitivities informs reliability and policy scenarios***

Next Steps

- Seeking endorsement at the March Planning Committee

- Following PC endorsement, the draft language would be brought to the Markets and Reliability Committee (MRC) on March 20 for a first read, and PJM will seek endorsement at the April 25 MRC

Contact Information

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Appendix

Feedback from January PC

Feedback	Consideration
Request to post legal position paper and OA references	1/9 PC postings
Request PJM conduct a page turn of LTRTP Manual revisions	1/23 and 1/26 meetings
Request to enhance the issue charge with scope	1/23 Posting
Discuss replacement generation and capacity expansion	M14b: 1.3.1
Consider modeling economic retirements in scenarios	M14b: 1.3.1
Discuss LTRTP scenario and assumption considerations	M14b: C.4.1 (w/ 2.1.2, 2.1.4), Exhibit X
Consider TEAC/ISAC participation in scenarios' definitions	M14b: 1.3.1
Consider public policy assumptions in NT RTEP	M14b: 1.3.1, 2.1.4, B.4
Incorporate how economic factors considered in evaluation	M14f: 8.1.2, 8.1.3
Consideration for states to request additional benefits	M14f: 8.3
Questions about base line upgrades and public policy projects	Useful Terminology Slide

Feedback from 1/23 Special PC

- Check grammar/typos/language consistency
- Add details, particularly on:
  - Definition of the Base Reliability scenario
  - Capacity expansion
  - Benefits
  - Development of multiple scenarios and their use
- Keep manual language at a high level and work through the details in the assumption discussion phase

Feedback from 1/26 Special PC

- PJM proposed specific language for the Base Reliability scenario
  - Stakeholders expressed strong appreciation for PJM response to this most important feedback and support for the proposed language
- Other feedback:
  - Check language consistency, especially on public policies, and align it with OA
  - Use more specific language on retirements modeled in Base Reliability scenario
  - Consideration of stakeholder feedback on the Base Reliability and other scenarios/sensitivities' assumptions
  - Review reliability analysis language: voltage thresholds, studied contingencies, 8 vs 15-year cases

Base Reliability Scenario Primary Inputs, Manual 14B Exhibit

	Base Reliability Scenario Primary Inputs
Load	PJM's annual load forecast
Retirements	Announced, Federal Policy, and State Policy retirements
Resource Adequacy	Target 1-in-10 LOLE
Existing Generation	Existing, ISA, awarded SAA capability
Replacement Generation to meet 1-in-10	Queue*

***Note:** * Additional replacement generation beyond the queue may be necessary to achieve resource adequacy - process described in revised Manual language (slide 5).*