



Notice of Proposed Rulemaking:
Building for the Future Through Electric Regional
Transmission Planning and Cost Allocation and Generator
Interconnection
Docket No. RM21-17

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Long-Term Transmission Planning
Reform Workshop

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PJM generally supports proposed Long Term Regional Transmission Planning (LTRTP) scenario analysis framework.

PJM NOPR RESPONSE

- PJM strongly encourages FERC to adopt a 15-year time horizon as the more prudent approach that balances risk of uncertainty, potential financial impacts and the timeline to build EHV solutions.
- PJM can support four scenarios; however, PJM believes flexibility should be allowed to analyze fewer or more scenarios based on stakeholder input.
- PJM supports successive, non-overlapping three-year scenario evaluation cycles.
- The LTRTP scenario analysis framework will require a significant investment in additional resources and tools to support. The LTRTP process must be efficient and actionable.

PJM generally supports proposed LTRTP scenario development factors.

PJM NOPR RESPONSE

- The FERC-proposed Scenario Development Factors generally reflect the PJM Enhanced 15-Year Long-term Planning (Master Plan) [white paper](#).
- PJM supports incorporating input from state and federal law; however, requiring transmission providers to reflect all possible “local laws” in regional, long-range transmission planning creates an unreasonable compliance obligation. PJM supports the consideration of any local laws or regulations that are brought to its attention by stakeholders.
- PJM supports incorporating economic analyses of potential generation retirements as part of scenario development factors, but cautions of any perceived impacts of this being done a transparent manner.

PJM supports a benefit analysis approach.

PJM NOPR RESPONSE

- PJM believes significant overlap exists among the proposed 12 benefits metrics list. PJM supports a subset of five benefit metrics including enhanced reliability based on internal analysis and stakeholder discussion.
- FERC should consider adopting a minimum core set of benefits that apply industrywide. Regions should have flexibility to add to that set based on regional diversity.
- Caution FERC of the speculative nature of calculating a benefit metric over a 20-year horizon, which is essentially looking out 25–28 years as counted from the in-service year of the selected facility.

PJM believes the Transmission Planner has ultimate authority to select LTRTP projects. Existing *ex ante* cost allocation should be used absent a state agreed upon alternate cost allocation methodology.

PJM NOPR RESPONSE

- The Final Rule should clarify that the RTO has the ultimate authority to select LTRTP projects.
- PJM transmission owners have exclusive authority and responsibility to submit filings under section 205 “in or relating to . . . the transmission rate design under the PJM Tariff.”
- PJM currently has *ex ante* FERC-accepted cost allocation methodologies for reliability and economic projects, which would serve as the default cost allocation methodology absent a state agreed upon alternative cost allocation methodology.

PJM does not agree with requiring transmission providers to consider facilities that address queued generator interconnection needs identified multiple times but have never been constructed due to the withdrawal of the interconnection request.

PJM NOPR RESPONSE

- PJM's interconnection process, capacity market and energy market send economic signals to generation on where to locate in terms of upgrade costs.
- Proposal may create an unintended incentive for generation developers to submit multiple requests, knowing that significant network upgrades would be needed, then withdrawing in order to trigger this LTRTP process.
- Proposal shifts cost to load that was otherwise too expensive for generators.
- PJM's Interconnection Process Reform filing can help alleviate the concerns the Commission is attempting to address.
- PJM could, with state support through the SAA, develop more holistic regional upgrades that would cover sustainable (not withdrawn) interconnection requests.

PJM supports the concept of “right-sizing.”

PJM NOPR RESPONSE

- As existing infrastructure continues to age, right-sizing can provide an important opportunity to address needs resulting from the changing resource mix and load growth.
- Any final rule must make clear that the transmission owner who identified the estimated in-kind replacement would not necessarily be bound by the transmission provider’s right-sizing decision.
- Determining “right-sizing” candidates is not an exact science and would be based on facilities’ age and typical equipment life span as well as the near-term and long-term needs.
- PJM supports “right-sizing” for 200 kV and above, but believes FERC should consider the potential benefits of “right-sizing” for 100 kV and above without delaying short-term reliability or customer needs.

NOPR concept of Geographic Zones does not necessarily align with PJM renewable resource locations or PJM market structure.

PJM NOPR RESPONSE

- PJM does not site generation. Economic and commercial considerations driven by PJM capacity and energy markets have historically guided developer determination of generation location.
- PJM supports the idea of heat map development, the creation of which should be assisted by national labs, as a tool to provide insight for identifying favorable locations based upon various economic, environmental or geographic factors.
- PJM will incorporate stakeholder input as part of scenario development with respect to location of future generator.
- PJM interconnection process reform will likely see clusters of generation move forward together with more robust transmission solutions to interconnect greater numbers of renewables and other generation at once.
- PJM does not support the NOPR notion that the transmission provider should assess generation developers' commercial interests.

Note: ANOPR analysis of PJM geographic and electric proximity of queued generation to load centers did not support the concept of Geographic Zones in PJM. Generation is much more distributed throughout the footprint, and PJM determined that over 85% of existing and future generation was located within 100 miles of major load centers.

Dynamic Line Ratings (DLR) and Advanced Power Flow Control (APFC) devices are not long-term horizon planning solutions that should be considered to solve LTRTP scenario violations.

PJM NOPR RESPONSE

- DLR and APFC devices can be considered for short-term horizon planning solutions; however, they are not acceptable solutions to identified long-term transmission needs like that which the NOPR contemplates for 20-year LTRTP scenarios.
- Planners cannot use DLR as a long-term planning solution to solve reliability criteria violations.
- Transmission owners are responsible for setting line ratings, per NERC FAC-008 standard.
- DLR technology is a real-time operational tool that uses ambient conditions to optimize thermal ratings. DLR can be considered for use to address congested facilities under the market efficiency construct.
- APFC technologies are viable planning solutions. Installation timelines, however, are more aligned with short-term planning solutions.

As the Commission is creating minimum planning standards, enhanced reliability planning should be addressed, including an actionable enhanced reliability driver.

PJM NOPR RESPONSE

- FERC should harmonize the different NOPRs where a portion of the resilience issue is assigned to NERC while others remain in LTRT scenario planning. Additional Commission support is needed for enhanced reliability initiatives beyond the five-year time horizon.
- PJM recommends adding resilience as a factor to the 20-plus-year process.
- PJM recommends that FERC address Minimum Interregional Transfer Capability.
- PJM agrees that the five-year short-term planning process should remain undisturbed.

The Final Rule should avoid the new long-term planning process becoming a litigation hammer.

PJM NOPR RESPONSE

- FERC should require a statement of goals of the planning process to be included in tariffs with details of the LTRTP left to manuals and future 205 filings to avoid elongated compliance dispute as occurred with Order 1000.
- NOPR must be clear on Authority, Responsibilities and Roles.
- NOPR's tariffing requirements limit ability to develop and modify long-term planning process without additional litigation.
- NOPR focuses heavily on process without providing clarity on criteria for selecting futures and integrating them into shorter-term planning decisions.
- Litigation over new 20-year process and extended compliance filing debates could distract technical resources and detract from need to timely move forward on holistic planning.

Since the Right Of First Refusal (ROFR) is a national policy issue, the Commission should resolve the ROFR issue substantively rather than allowing each region to decide.

PJM NOPR RESPONSE

- Reinstatement of the right of first refusal is a national policy issue. Do not leave to each region to decide with no FERC substantive ruling.
- ROFR region-by-region approach erodes RTO membership stability.
- Patchwork of decisions will be exacerbated by different governance and voting structure around ROFR decision.
- FERC should consider selected departures from the ROFR LTRTP, Public Policy Projects (state discretion) and multi-zonal projects.

PJM will provide factual information as to its experience with competitive solicitations under Order 1000 in order to provide the Commission with a complete record to make its policy decision.

PJM NOPR RESPONSE

- Order 1000 incentivizes smaller low-cost fixes in lieu of more holistic solutions.
- Engineers expend significant time responding to Order 1000 related questions and litigation as compared to conducting required power flow analysis to otherwise examine scenario studies of future conditions.
- Potential areas where a targeted competitive process might still be appropriate include: the LTRTP, Public Policy Projects (state discretion) and multi zonal projects.



Topic 12: Competitive Proposal Window Statistics

Competitive Window Proposals (2013–2021)	Market Efficiency	Reliability	Total
Proposals	323	774	1,097
Total Proposals From Incumbents	173	461	634
Proposal From Non-Incumbent	150	314	464
Approved Incumbent Projects	21	161	182
Approved Non-Incumbent Projects	1	2	3

Non-Incumbent
42% of all proposals received and 2% of all projects selected

Incumbent
58% of all proposals received and 98% of all projects selected

2022 NJ State Agreement Approach which resulted in 80 proposals was not included as part of these statistics

PJM believes FERC has underestimated time and cost impact of NOPR.

PJM NOPR RESPONSE

- FERC underestimates the hours and costs associated with implementing the LTRTP proposals set forth in the NOPR.
- If the Final Rule were enacted as proposed, PJM would have to create, at a minimum, a new department to support the studies (estimated 7 – 14 FTE) required by the NOPR and the potential to add additional support staff (Legal, State and Member Services, and Stakeholder Affairs estimated 6 FTE).
- FERC must allow for a reasonable transition timetable to allow for staffing and tool development.
- The LTRTP process must be efficient and actionable.

PJM supports FERC-facilitated forums in the areas of: (1) development of data inputs; and (2) best practices for implementing Long-Term Regional Transmission Planning.

PJM NOPR RESPONSE

- PJM supports FERC-sponsored facilitated forums to develop objective data inputs and discuss LTRTP best practices.
- PJM cautions FERC against protracted initiatives.
- PJM cautions FERC that any such process needs to be efficient since the same in-house staff required to implement the LTRTP scenario analysis will also participate in the FERC Facilitated Forums.



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