



Notice of Proposed Rulemaking

Docket No. RM21-17

Long-Term Transmission
Planning Reform Workshop

May 10 and May 25, 2022

Building for the Future Potential Reforms to Improve Regional Transmission Planning and Cost Allocation and Generator Interconnection Processes

7/15/21: FERC issued an Advance Notice of Proposed Rulemaking (ANOPR) seeking comments on potential reforms addressing:

- regional transmission planning;
- generator interconnection planning processes; and
- enhanced oversight of investment in transmission and related cost recovery

(175 parties filed initial comments; 95 parties filed Reply Comments)

11/15/21: FERC technical conference to address issues raised in ANOPR

4/21/22: FERC issued the Notice of Proposed Rulemaking (NOPR) discussed below

- Changes in the resource mix and demand, operational challenges, and increasing regional integration create a need for public utility transmission providers (TPs) to engage in long-term regional transmission planning (LTRT Planning) and cost allocation to meet long-term transmission needs more efficiently or cost-effectively (P2).
- Builds upon Order Nos. 888, 890 and 1000. Specifically, the absence of sufficiently long-term, comprehensive transmission planning processes may be resulting in piecemeal transmission expansion addressing relatively near-term transmission needs (P25).
- The NOPR reforms propose to require TPs to conduct long-term regional transmission planning on a sufficiently forward-looking basis to meet transmission needs driven by changes in the resource mix and demand (P3).

- Concerns have been raised regarding inconsistencies as to obligations assigned to RTOs and TOs in the RTO regions vs. TOs in non-RTO regions regarding the regional transmission planning process.
 - Do you think FERC has offered a balanced approach that will allow for consistency in how any final rule will be implemented in RTO v. non-RTO regions?
 - Can PJM offer any specific recommendations/feedback on this point?

- Six major topics covered in the NOPR:
 - LTRT Planning;
 - regional transmission cost allocation;
 - the construction-work-in-progress (CWIP) incentive;
 - the federal right of first refusal (ROFR) to construct new transmission facilities;
 - enhanced transparency for local transmission planning; and
 - interregional transmission coordination and cost allocation

- FERC deferred on several issues that were addressed in the ANOPR, including reforms related to:
 - cost allocation methodologies for interconnection-related network upgrades;
 - interconnection queue processes;
 - interregional transmission coordination and planning; and
 - oversight of transmission planning and costs
- NOPR does not propose to modify existing regional planning processes that plan for “near-term” reliability and economic needs (PP3, 89)

- FERC proposes to require TPs, in coordination with states, to:
 - identify transmission needs driven by changes in the resource mix and demand through the development of long-term scenarios;
 - evaluate the benefits of regional transmission facilities to meet these needs over a time horizon that covers, at a minimum, 20 years starting from the estimated in-service date of the transmission facilities;
 - establish transparent and not unduly discriminatory criteria to select transmission in the regional plan for purposes of cost allocation that more efficiently or cost-effectively address these LTRT needs driven by changes in resource mix and demand in collaboration with states and stakeholders; and
 - more fully consider dynamic line ratings and advanced power flow control devices in the regional planning process to apply to *all* aspects of the regional planning processes, i.e., near-term regional needs and LTRT Planning (PP3, 56, 69)

- FERC proposes to require TPs to identify transmission driven by changes in resource mix and demand through development of Long-Term Scenarios that satisfy the following specific requirements:
 - use of transmission planning horizon of no less than 20 years and reassess and revise the Long-Term Scenarios at least once every three years;
 - incorporate into scenarios FERC-identified categories of factors that may drive transmission driven by changes in resource mix and demand (P121);
 - develop a plausible and diverse set of at least four (4) Long-term Scenarios (PP122, 123);
 - use “best available data” in developing Long-Term Scenarios; and
 - consider whether to identify geographic zones (PP78, 91).
- FERC does not propose to require TPs use Long-Term Scenarios in their regional transmission planning processes to address near-term reliability and economic transmission needs (P89).

- Keeping in mind that this 20 year period is really 25-28 years when you add in the in-service date, does the value of such a forward looking approach exceed its inherent uncertainty and speculation?

- NOPR indicates it is not requiring any changes to the present Order No. 1000-based reliability and economic planning and project development. It also provided that it is not requiring the TP to select projects considered in the LTRT Planning process.
 - How should PJM respond to ensure that the LTRT Planning process adds value to the existing near-term planning process?
 - What should PJM recommend in its comments to ensure that reliability and economic projects are not subject to challenge for not having been considered in the LTRT Planning process?

Incorporate Specific Categories of Factors to Consider for Long-Term Scenarios

- Federal, state and local laws and regulations that affect the future resource mix and demand;
- Federal, state and local laws and regulations on decarbonization and electrification;
- State-approved integrated resource plans and expected supply obligations for load serving entities;
- Trends in technology and fuel costs within and outside electricity supply industry;
- Resource retirements;
- Generation Interconnection Requests and withdrawals; and
- Utility and corporate commitments and federal, state and local goals that affect future resource mix and demand (P104).

- Like Order No. 1000, the NOPR specifically references “local laws and regulations” that affect the future resource mix and demand and decarbonization and electrification under categories of factors the TP must consider in its Long-Term Scenario planning.
 - How would PJM build “local laws and regulations” into an LTRT Planning process that could respond to local laws and regulations that localities embrace but others do not?
 - How would you comment on this point in a way that would be constructive?

- Number and range of Long-Term Scenarios determine the scope of possible future conditions to allow TPs to identify transmission needs for each future condition
 - develop at least four (4) distinct Long-Term Scenarios
 - one of the four must account for uncertain operation outcomes (high impact, low-frequency events) (PP121, 124);
 - each distinct Long-Term Scenario must incorporate, at a minimum, the specific category of Factors (see Slide 9) (P121);
 - each Long-Term Scenario *must be consistent* with
 - Federal, state and local laws and regulations that affect future resource mix
 - Federal, state and local laws and regulations on decarbonization and electrification (P121);
 - State approved integrated resource plans (P121)
 - each Long-Term Scenario *may vary* according to assumptions for the remaining category of factors, as well as with respect to other future system characteristics (P121).

- Do you think requiring TPs to develop detailed tariffed requirements around Long-Term Scenario planning, e.g., ≥ 20 year planning horizon, specific categories of factors, development of at least four (or more) Long-Term Scenarios using specifically defined “best available data” will compensate for the inherent uncertainty associated with a 20-year planning horizon?
 - Do you think these rules will stimulate the development of needed transmission?
 - Should PJM recommend a different approach in how FERC oversees the development of long range planning processes?

- The NOPR proposes to require TP to identify, with stakeholder input, specific geographic zones within the planning region (P134). The NOPR also proposes a detailed 3-step process specific to geographic zone.
- The three-step process under geographic zones is quite detailed. For example, as part of step 2, FERC proposes to require the RTO to develop a method to assess a generation developer's commercial interest in developing generation within a designated geographic zone by looking at letters of credit associated with each generation developer, leasing agreements, merchant commitments, etc. (P145).
 - If we need that information to comply with the Tariff, would this information be readily available to PJM?
 - Should an RTO be mandated to identify geographic zones as part of the LTRT Planning process?

- Consider regional facilities addressing interconnection-related needs the TP has identified *multiple times* in the generator interconnection process but have never been addressed due to withdrawal of interconnection request (PP107, 154, 166)
 - “multiple times” means “at least two interconnection queue cycles during the preceding five years” (P166).
- Identified interconnection-related network upgrades should be:
 - at least 200 kV and an estimated cost of at least \$30 million
 - not developed and are not currently planned to be developed (P166).
- Need should be focused on relevant interconnection-related needs not the identical identified network upgrades (P171).
- Interconnection-related needs should be a factor used in developing Long-Term Scenarios (P167).
- Not all interconnection-related needs must result in transmission included in the regional plan (PP168, 173).

- In justifying these reforms, FERC points to “sticker shock” as the deciding factor for generation withdrawals (P162) and finds planning upgrades exclusively through the generator interconnection process may result in a mismatch between beneficiaries of the upgrades and those allocated the costs (P165).
 - Do you agree with this finding? If so, why; if not, why not?
- In order to comply with such a requirement, PJM would have to (i) identify all projects addressing the same need in at least two cycles in the preceding five years and (ii) ascertain whether the interconnection-related network upgrades were not developed as a result of withdrawal by the generator(s).
 - If this requirement were memorialized in the PJM Tariff, is this requirement doable?
 - If the upgrades were not financially sound for multiple generators resulting in their withdrawal, should load be required to pay for those upgrades as part of the RTEP process?

- FERC declined to prescribe a definition of “benefits” or “beneficiaries” or require use of any specific benefits (PP176, 186).
- FERC provides a list of at least 12 benefits a TP might consider to select needs driven by changes in resource mix and demand. On compliance, TP must:
 - Identify what benefits TP will use in LTRT Planning process;
 - Explain how the benefits will be calculated;
 - Explain how the benefits will reasonably reflect the benefits of regional facilities to meet identified transmission needs driven by changes in the resource mix and demand (P186)
 - The benefits should be evaluated over a time horizon that covers a minimum of 20 years (PP227, 228, 229).
- Portfolio Approach. TPs may propose to use a portfolio approach in the evaluation of benefits and selection of transmission facilities in the regional plan (P171).

- Given that FERC declined to identify “benefits” of new transmission or a means to identify “beneficiaries” in evaluating benefits of LTRT Facilities and leaves this issue to be resolved in the context of the stakeholder process and for cost allocation, this issue have been directed to the states.
 - Should PJM seek additional guidance from FERC on this point?

- Subject to certain minimum requirements, the NOPR proposes to allow TPs “flexibility,” in consultation with stakeholders, to propose selection criteria; however,
- Minimum requirements for selection criteria (P245):
 - Must be transparent and not unduly discriminatory;
 - Must aim to ensure selection of more efficient or cost effective facilities to address needs driven by changes in the resource mix and demand;
 - Must seek to maximize benefits to consumers over time without over-building
- Must also provide for:
 - how TP will address the selection status of a previously selected transmission facility based on outcome of subsequent LTRT Planning cycles (P248).
 - a process to coordinate with relevant state entities in developing selection criteria
- FERC is not proposing criteria must result in transmission facilities being selected (PP168, 173)

- The NOPR does not specifically require planning for resilience other than inclusion of extreme weather events (under assumptions) (P84) or benefits a TP may consider when selecting the more efficient or cost effective solution to meet needs driven by changing resource mix and demand (P183).
 - Do you agree with the approach taken by the Commission in the NOPR?
 - How would you recommend that planning of resilience be integrated into any LTRT Planning process beyond those steps taken by PJM to date?

- Proposes to require TPs in each planning region to revise its OATT to include either:
 - LTRT cost allocation method to allocate costs of LTRT facilities;
 - State Agreement process by which one or more relevant state entity(ies) may voluntarily agree to a cost allocation method; or
 - combination thereof (P302).
- TPs must seek agreement from relevant state entities and demonstrate on compliance how the cost allocation reform (PP302, 303):
 - reflects the agreement of the relevant state entities; or
 - to the extent agreement cannot be obtained, reflects good faith efforts by the relevant TP to seek agreement from such state entities
- Alternative Cost Allocation Method. Provide a timeframe for states to negotiate a cost allocation method for a transmission facility selected in regional plan that is different than an *ex ante* regional cost allocation method that would otherwise apply (PP319-322)

Require TPs to identify on compliance:

- The benefits they will use in any *ex ante* cost allocation method associated with LTRT Planning;
- How they will calculate those benefits;
- How the benefits will reasonably reflect the benefits of regional transmission facilities to meet identified transmission needs driven by changes in the resource mix and demand;
- Explain the rationale for using the benefits identified (P326).

*The cost allocation reforms would not apply to the cost allocation methods associated with near-term reliability and economic needs (P314).

- FERC proposes to not permit transmission owners (TOs) to take advantage of the CWIP Incentive for LTRT Facilities during pre-construction and construction phase of LTRT Facilities because FERC is concerned that the incentive may shift too much risk to consumers to the benefit of the TOs
- Instead, FERC proposes that a TO may only recover those costs after the project is in service (P333).

- FERC continues to require compliance with Order 1000's nonincumbent developer reforms (P335).
- NOPR proposes to amend nonincumbent development requirements in part to permit the incumbent TO to exercise its federal ROFR for transmission facilities selected in a regional plan for cost allocation *conditioned on* the TO with the federal ROFR for such facilities establishing a joint ownership of transmission facilities
 - An TO may establish qualifying joint ownership with unaffiliated nonincumbent developers or another unaffiliated entity, including another incumbent (PP351, 358).
- TPs seeking to adopting this reform will need to include in its Tariff a detailed process for exercising a conditional joint ownership ROFR (P366).
- If TO chooses not to exercise its federal ROFR, TP would then proceed to follow its competitive transmission development process to select a pre-qualified transmission developer to use the regional cost allocation method for selected facilities (P357).

- TP will identify regional transmission need (P367);
- Before initiating competitive planning process, TP will give relevant incumbent TO(s) an opportunity to indicate its intent to invoke the ROFR and submit a jointly-owned regional transmission facility (P368);
- Upon receipt of jointly-owned facility proposal, TP would confirm the jointly-owned proposal by:
 - Confirming the parties' rights and responsibilities associated with the jointly-owned facility proposal, i.e., their proposal commits them to a joint-ownership agreement; and
 - Conformance with Tariff provisions implementing ROFR option (P369); and
- If a jointly-owned transmission proposal is not or cannot be confirmed as conforming with the tariffed ROFR provisions, TP shall proceed to follow its competitive development process (P369).

- For Joint Ownership ROFR, the NOPR proposes that:
 - TP review the joint ownership agreements that form the basis of the federal ROFR to assess the partners’ respective financial interest and relationship(P370)
 - TP determine whether the agreement reflects “meaningful level of participation and investment in proposed transmission facilities” (P371).
- Is this an appropriate role for PJM? Why or Why not?



Transparency & Coordination of Local Planning Proposal

- Similar to TOs' Attachment M-3 Supplemental process, NOPR proposes to require TPs to revise their regional planning process to add provisions to enhance transparency of:
 - the criteria, models and assumptions used in their local transmission planning process;
 - the local transmission needs identified through that process; and
 - the potential local or regional transmission facilities that they will evaluate to address those local transmission needs (P400).
- Each TO must evaluate whether transmission operating ≥ 230 kV it anticipates replacing with new in-kind transmission over the next 10 years can be “right-sized” to address regional transmission needs identified in LTRT Planning process (P403).
- For any “right-sized” replacement facility selected in the regional plan, FERC proposes to establish a federal ROFR for the incumbent TO to extend to any portion of the facility located in the TO's zone (P409).

- NOPR proposes to require as part of each LTRT Planning cycle that TPs publicly identify in-kind replacement projects of their transmission ≥ 230 kV to make such facilities a candidate for “right-sizing” to more efficiently or cost-effectively address regional transmission needs (P403). In return, for any right-sized replacement facility that is selected in the RTEP for purposes of cost allocation to meet transmission needs identified through LTRT Planning, FERC proposes to require the establishment of a federal ROFR (for any portion of the facility located within the TO’s zone) for the TO that included the in-kind replacement facility in its in-kind replacement estimates (P409).
 - Do the TOs have this information and do the TOs have any objections with providing such information?



- FERC proposal:
 - Does not propose changes to existing interregional coordination and cost allocation requirements of Order No. 1000 (P416);
 - Requires TPs to revise their existing interregional transmission coordination procedures to reflect the LTRT process reforms proposed in the NOPR specific to:
 - Sharing of information regarding each neighboring region’s transmission needs identified in the LTRT planning as well potential facilities to meet those needs; and
 - Identification and joint evaluation of interregional transmission facilities that may be more efficient or cost effective to address transmission needs identified in each region’s LTRT planning process (P427).

- Initial comments ~~due July 18, 2022~~
 - extended to and including **August 17, 2022**
- Reply comments ~~due August 17, 2022~~
 - extended to and including **September 19, 2022**
- If FERC issues a Final Rule, FERC proposes to require each TP to submit a compliance filing within 8 months of the effective date of the Final Rule
- FERC will hold a technical conference on transmission planning and cost management on October 6, 2022

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