

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

Building for the Future Through Electric)	Docket No. RM21-17-000
Regional Transmission Planning and Cost)	
Allocation and Generator Interconnection)	
)	

COMMENTS OF THE INDEPENDENT MARKET MONITOR FOR PJM

Pursuant to Rule 211 of the Commission’s Rules and Regulations,¹ and the Notice of Proposed Rulemaking issued in the proceeding on April 21, 2022 (“NOPR”),² Monitoring Analytics, LLC, acting in its capacity as the Independent Market Monitor (“Market Monitor”) for PJM Interconnection, L.L.C. (“PJM”),³ submits these comments. The Market Monitor appreciates the careful approach to transmission planning taken by the Commission and the intense interest of the commenters. The Market Monitor agrees that it is essential to have a consistent approach to transmission planning, but also recognizes that the application of consistent principles to very different market designs and physical infrastructure will result in potentially very different rules for different markets and nonmarket areas.

¹ 18 CFR § 385.211 (2022).

² *Building for the Future Through Electric Regional Transmission Planning and Cost Allocation and Generator Interconnection*, Advanced Notice of Proposed Rulemaking, 179 FERC ¶ 61,028 (“NOPR”).

³ Capitalized terms used herein and not otherwise defined have the meaning used in the PJM Open Access Transmission Tariff (“OATT”), the PJM Operating Agreement (“OA”) or the PJM Reliability Assurance Agreement (“RAA”).

I. COMMENTS

A. Long Term Regional Transmission Planning

As Market Monitor for PJM, we have not examined the detailed results of the transmission planning process throughout the U.S. whether in organized markets or not. Many of the design flaws that motivated this NOPR are not present in PJM. As one example (at P 37), it is not true in PJM that investments associated with interconnections have been disproportionately large. PJM's recently proposed changes to the interconnection process will significantly improve the efficiency and effectiveness of the interconnection process and the interaction between interconnection requirements and the RTEP planning process. Issues in the interconnection process have many sources, but one source not usually identified is that developers add speculative projects to the queue in order to create low cost optionality but which also create delays and increased costs for others when withdrawn. It would be a mistake to let such projects affect long term transmission planning. PJM's proposed changes to the interconnection process directly address these incentives. PJM directly accounts for the interaction between the interconnection process and the RTEP process in the PJM planning process, as explained by PJM in their comments (at 17-18). PJM's process meets the Commission's proposed requirements (at P166), The conclusion that about two thirds of the total transmission investment in PJM went to resolving local needs is an artifact of the fact that transmission owners have reclassified transmission projects in order to avoid competition to build transmission. A consistent, comprehensive approach to requiring competition for transmission projects is an essential part of long term regional transmission planning and in PJM would ensure that all such transmission projects are managed within the RTEP process.

The Commission identifies the "failure to assess longer-term transmission needs" as a problem with existing transmission planning processes. PJM does currently engage in long term regional transmission planning. The PJM process could be improved. The PJM RTEP process currently looks 15 years ahead. That period could be extended to 20 years as

proposed by the Commission, while recognizing that as the period grows longer, uncertainty increases significantly and reduces the value of the results. The planning process should look as far ahead as there is reasonable data to support it, but recognize that the range of possible outcomes becomes much larger the longer the look ahead period. The planning process should be both long term and flexible. The planners must have the ability and the requirement to change plans as reality changes.

The Commission identifies the failure “to ensure that public utility transmission providers adequately account on a forward-looking basis for known determinants of transmission needs driven by changes in the resource mix and demand.” The Commission’s goal is correct. It must be the goal of transmission planners to try to ensure the construction of “more efficient or cost-effective transmission facilities to meet transmission needs driven by changes in the resource mix.” It must also be the goal of transmission planners, as the Commission states, to attempt to incorporate as many of the significant determinants of future transmission needs as possible, including trends in electrification. The PJM process could be improved. For example, PJM faces the potential retirement, primarily for environmental regulatory reasons, of a significant amount of coal resources in the next five years. Both the PJM capacity market design and the transmission planning process need to identify these specific resources well in advance and plan for their retirement in order to ensure an efficient response and to obviate the need for nonmarket cost of service contracts to retain the generation while transmission is constructed. But other changes in resource mix and demand are much harder to project. For example, the PJM market is experiencing very large increases in demand in specific locations related to data centers. Those were not predictable in any specific way, 20 or even 15 years ago. Many observers discuss the level of intermittent resources in the PJM interconnection queues and predict that PJM will soon have 100,000 MW of renewable resources on the grid. But the facts are that of the 209,932.6 MW of renewable projects in the queue, only 26,205.8 MW (12.5 percent) are expected to go in service based on historical completion rates and only 11,745.5 MW (5.6 percent) of intermittent capacity resources are expected to go into service, based on both historical completion rates

and ELCC derate factors for battery, wind and solar. Even these fairly dramatic data do not account for the fact that it can be reasonably expected that marginal ELCC values for standalone renewable resources will decline quickly and sharply, creating incentives for more hybrid resources with different characteristics including different required levels of transmission interconnection rights. If the DER initiatives have a significant effect, a significant part of planning will be removed from the RTO planning process and make planning more difficult and less certain. For efficient and cost effective transmission planning, the planners must have both aggregate and very specific locational data about future demand and the future resource mix. This data is much less certain than it appears on an aggregate level and even less certain on the detailed locational level that is required in order to plan for and construct a specific transmission facility.

Even with all these identified caveats, the Commission's proposed requirements (at P 69) are reasonable and could be reasonably accommodated in the PJM RTEP planning process, which already meets most or all the requirements.

The Commission identifies the failure to "identify a sufficiently broad set of benefits—and beneficiaries—associated with regional transmission facilities planned to meet transmission needs driven by changes in the resource mix and demand." It does make sense to attempt such an evaluation as part of designing an improved cost allocation process and by increased state involvement, as the Commission proposes. But it is not clear how these factors could or should affect the decision to construct transmission facilities.

Identifying costs and benefits is difficult and prone to errors and subjective judgments even if the costs and benefits are clearly defined and quantifiable. For example, there are significant issues with PJM's current cost/benefit analysis which is much more limited than that discussed by the Commission. The current rules governing cost/benefit analysis of competing transmission projects do not accurately measure the relative costs and benefits of transmission projects. The current rules do not account for the fact that the benefits of projects are uncertain and highly sensitive to the modeling assumptions used. The current rules explicitly ignore the increased zonal load costs that a project may create. The current rules do

not account for the fact that the project costs are nonbinding estimates, are not subject to cost caps and may significantly exceed the estimated costs. These flaws have contributed to PJM approving market efficiency projects with forecasted benefits that do not exceed the forecasted costs when evaluated carefully. Estimating production cost savings is not likely to produce accurate results. For example, compare production cost savings and congestion patterns with \$3.00 gas and \$5.00 gas, or with 35,000 MW of coal generation and 20,000 MW of coal generation, or with 5,000 MW of renewable generation and 20,000 MW of renewable generation, or with various combinations of all these. It is questionable whether such forecasts provide any meaningful guidance above the basic reliability criteria used by PJM.

Building transmission to mitigate market power in the energy market is not even close to cost effective when compared with direct requirements for competitive offers in areas with high levels of ownership concentration, as measured by RSI₃.

The focus on transmission displacing generation would substitute planning decisions for markets and tilt the scales in favor of transmission over generation without full consideration of the interaction between the two. The Commission focuses on the intersection between markets for generation and transmission planning but appears to favor building transmission over generation. In order to maintain a competitive energy market and a competitive capacity market, it is essential not to extend the planning/cost of service paradigm into the markets.

The goal of PJM market design should be to enhance competition and to ensure that competition is the core element of all PJM markets. But transmission investments have not been fully incorporated into competitive markets. The construction of new transmission facilities has significant impacts on the energy and capacity markets. But when generating units retire or load increases, there is no market mechanism in place that would require or even permit direct competition between transmission and generation to meet loads in the affected area. PJM's current cost benefit based market efficiency process does exactly the opposite by permitting transmission projects to be approved without competition from generation. The cost benefit approach explicitly allows transmission projects to compete

against future generation projects, but without allowing the generation projects to compete. Projecting speculative transmission related benefits for 15 or 20 years based on the existing generation fleet and existing patterns of congestion, or speculative changes to both, eliminates the potential for new generation to respond to market signals. The market efficiency process allows assets built under the cost of service regulatory paradigm to displace generation assets built under the competitive market paradigm.

B. GETS and DLR

The Market Monitor supports the Commission's proposal (at P 272) to require that transmission providers more fully consider the inclusion of dynamic line ratings and advanced power flow control devices.

C. Competition

The Commission proposes to substantially weaken the prohibition against the exercise of federal rights of first refusal for an incumbent transmission provider with respect to entirely new transmission facilities selected in a regional transmission plan for purposes of cost allocation. The Commission proposes to modify this blanket prohibition on the federal right of first refusal by allowing the incumbent transmission owner to exercise the right of first refusal if the incumbent establishes joint ownership of the transmission facilities with a nonaffiliated entity.

The Market Monitor opposes this provision because it weakens rather than strengthens competition to build transmission. Extending the prohibition on the right of first refusal rather than weakening it would support the Commission's other transmission planning goals. The goals of Order No. 1000 continue to be an essential guide for transmission policy.

As the Commission stated in reference to competition in the energy market (at P 29), "In addition, transmission can unlock the forces of competition, changing who can sell to whom, eliminating barriers to entry, and mitigating market power. That, in turn, can provide a host of benefits for customers, including cost-savings from greater access to low-cost power

and a wider range of resources.” The same logic about the benefits of competition applies to competition to build transmission.

Competition would be a significant incentive to meeting the Commission’s stated goal (at P 41) of investment in more efficient and cost-effective transmission facilities.

The Commission notes (at P 344) that “in many transmission planning regions there has been comparatively limited investment in transmission facilities selected in a regional transmission plan for purposes of cost allocation as a result of a competitive process; transmission investment has instead largely been concentrated in transmission facilities generally not subject to competitive transmission development processes. In particular, recent transmission investment appears to be concentrated in local transmission facility development or regional transmission facilities subject to an exception from competitive transmission development processes, such as immediate need reliability projects or upgrades to existing transmission facilities, as opposed to investment in regional transmission facilities selected in a regional transmission plan for purposes of cost allocation that serve a wider set of transmission needs and are subject to competitive transmission development processes.”

The Commission fails to draw the self evident conclusion that the observed facts are a result of incumbent transmission owners successfully avoiding the requirement to compete by reclassifying transmission projects as project types not subject to competition. The solution would be to extend the Order 1000 prohibition of the federal right of first refusal to additional categories of transmission projects in order to ensure that competition really occurs. Instead, the Commission blames the competition requirement and proposes to further limit competition.

The proposal to require joint ownership as defined in the NOPR is antithetical to competition. Allowing the incumbent transmission owner to pick its partner, allowing the incumbent transmission owner to pick a fellow incumbent transmission owner as its partner, and allowing the incumbent transmission owner to define the level of ownership that qualifies are simply extending the incumbent transmission owners’ monopoly position. The proposal substantially weakens competition rather than strengthening it.

II. CONCLUSION

The Market Monitor respectfully requests that the Commission afford due consideration to these comments as it resolves the issues raised in this proceeding.

Respectfully submitted,



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