Competitive Transmission Development Technical Conference

Panel 5: Regional Transmission Planning and Other Transmission Development Issues

Testimony of Steven R. Herling Vice President, Planning PJM Interconnection, L.L.C. June 22, 2016





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PJM appreciates the opportunity to address the thoughtful questions raised by the Commission for consideration by Panel 5. My name is Steven Herling, Vice President of Planning at PJM Interconnection, L.L.C.

As we begin our third year implementing the various elements of Order 1000, PJM finds itself at a bit of a crossroads. We have embraced a sponsorship model, evaluating over 400 competitive proposals submitted in the course of more than a half dozen solicitation windows and have seen very positive results in terms of the range of proposed solution alternatives. In particular, in our most recent long term proposal window, we received over 100 proposals to improve market efficiency resulting in 16 approved projects to reduce transmission congestion.¹

These results have come with some fairly significant costs, however. Those real costs are in terms of man hours and dollars required to implement the competitive solicitation process, as well as adverse impacts to the regional transmission expansion planning ("RTEP") process such as stagnation and inability to resolve issues in a timely fashion. The real question is: "Is all of this work and litigation worth the effort and the results?" Today, the answer might be "probably not." However, if we can find a way to focus the playing field to manage the work load and minimize the degree of challenges, the answer, hopefully, would be "yes." PJM believes it can improve the focus and, through our lessons learned process, we have been identifying those areas and have been working with our stakeholders to improve the process. Moreover, as noted below, we have filed with this Commission some reforms (still pending) which will allow us to better channel our resources and efforts and those of stakeholders toward those transmission proposals where the opportunities that Order 1000 can bring are most apparent.² The 2016 RTEP will be the 17th RTEP approved by the PJM Board. Traditionally, the process has been highly collaborative with many changes implemented over the years to improve the level of transparency across all phases, from the development of assumptions to the review of analysis results to the identification of recommended solutions. It is not surprising that competition would increase the level of debate related to the choice of solutions. However, as the degree of RTO discretion in the planning process is replaced with greater tariff specificity, the degree of contention associated with many projects and the duration of the debate has increased significantly. Issues that would previously have been resolved in two to three months of stakeholder discussion are requiring six months or longer followed by letters to the PJM Board challenging the recommended solution. PJM will continue to strive to improve the Order 1000 processes to ensure its success. However, we cannot apply unlimited resources to the problem and we cannot accept delays that leave reliability concerns unresolved.

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¹ See, infra at 7, Table – Summarizing PJM's Competitive Window Solicitations from 2013 – 2015.

² See PJM Interconnection, L.L.C., Revisions to Schedule 6 of the Operating Agreement to Add Lower Voltage Facilities Threshold, Docket No. ER16-1335-000 (Apr. 1, 2016) (PJM filed revisions to add a Lower Voltage Threshold Exemption.



Order 1000 Implementation Has Driven a New Set of Challenges for PJM and its Stakeholders.

With respect to reliability criteria violations as a planning process driver, the vast majority of solutions over the history of the RTEP have been upgrades to existing infrastructure. This trend is expected to continue in the future. Under Order 1000, such solutions are reserved to the incumbent transmission owner for implementation. We have presented to the Commission proposals to better target our efforts by avoiding the need to issue proposal windows for projects which inevitably will default to the incumbent transmission owner under Order 1000's rules. Eliminating such issues from the competitive process will reduce both the administrative and analytical effort expended by PJM, the developer community (including both nonincumbent transmission developers and incumbent transmission owners) and stakeholders as a whole to allow all parties to focus on those transmission opportunities where the real benefits of Order 1000 lie. Similarly, PJM has found that violations that can easily be resolved by upgrades to existing substation equipment at higher voltage levels should be removed from the competitive process as well. PJM is currently working with its stakeholders on that issue.

The exercise of the planning process and the flow of decision-making has always required a degree of discretion and engineering judgment on the part of the independent RTO. Without actually performing the studies, it is impossible to know at the start of a process, every issue that will ultimately weigh on the final decision. Nonetheless, the level of debate and argument currently surrounding the planning process seems to suggest the need for an even greater level of detail in terms of process and tariff requirements. In fact, stakeholders have, on a number of occasions, suggested the need to shut a project proposal process down and start over with a new proposal window due to some new bit of information or a perception that the flow of the decision process is not consistent with their view of the tariff requirements. Such actions are counterproductive and offer nothing to ensure the timeliness or effectiveness of the planning process. Clearly such tactics offer no benefits to customers other than to use procedural details to delay the process and take two (or three) more "bites at the apple."

A balance must be struck among objectives. This balance needs to be restored in the following three key areas:

- Ensuring that the tariffing of processes not hinder the exercise of reasoned judgment by RTO transmission planners and create its own litigation and compliance trap that hinders timely, effective and transparent planning;
- Addressing the difficult issue of assessing cost commitments as part of the project proposal and ensuring that the relative role of the regulator versus the transmission planner is not blurred; and
- The lack of consistency in rolling out of Order 1000 across the country.



The Need for Balance Restoration in the Tariffing Process.

Transparency is a top priority, as well as timely resolution of reliability criteria issues. But, at what point are tariff procedures sufficiently detailed to promote fairness and competition, balanced with the exercise of judgement by the RTO so that the process can proceed effectively?

Assuming that competition is a means to an end, i.e. benefits to customers, and not itself a goal of Order 1000, how can we ensure that we are not clogging the competitive solicitation process with small projects needed for reliability that ultimately fall to the incumbent transmission owner under Order 1000 rules? In short, how can PJM best channel resources and efforts toward places where the need for innovation and competition can provide real benefits to customers? Greater tariff detail and reduced exercise of RTO judgment may provide greater up-front certainty for developers but it will likely result in a stagnated process overshadowed by the threat of litigation whenever someone is unhappy with the results. PJM would argue that transparency and the independence of the RTO should temper concerns related to less tariff detail and the exercise of the RTO's planning expertise and judgment and allow for the efficient exercise of the planning process.

The Need for Balance Restoration in the Assessment of Cost Cap Proposals.

The weighing of cost and cost cap related issues in the project selection process has been extremely challenging. While covered in an earlier panel, the role of the RTO in making decisions that directly impact ratemaking must be addressed by the Commission.

The Need for a Focus on a More Consistent Rolling Out of Order 1000 Processes Across the Nation.

Lastly, the implementation of Order 1000 varies widely across the country - in large part due to differences in cost allocation practices in different regions, which exclude certain issues or solutions from competition. PJM believes cost allocation should not drive planning. However, if the competitive solicitation process threatens the integrity of the planning process and the ability to comply with reliability criteria, then something must give. Either the scope of the competitive processes must be made manageable through tariff-based exclusions or revisions to cost allocation methodologies or PJM must take a step back and re-evaluate its solicitation process.

PJM welcomes this effort by the Commission to step back and evaluate what has worked and what may need reform in the context of implementation of Order 1000. As an RTO, which has fully embraced the RTO competitive solicitation process to date, we stand ready to work with the Commission on some targeted reforms in order to ensure that the goals of Order 1000 and its benefits to consumers can be fully and effectively realized.



Summary of the PJM Competitive Window Solicitations from 2013 - 2015

Over the last two years, PJM has conducted a number of competitive solicitations using its proposal window process. The solicitations ("windows") have been focused on reliability criteria violations (thermal and voltage), as well as operational performance and market efficiency. The windows have resulted in a total of over 450 proposals being submitted. A summary of the window results are illustrated in this table:

| | Artificial Island | Market Efficiency | 2014 RTEP Proposal Window 1 | 2014 RTEP Proposal Window 2 | 2014/15 RTEP Long Term Proposal Window | 2015 RTEP Proposal Window 1 | 2015 RTEP Proposal Window 2 |
|---------------------------------------|----------------------------|----------------------|--------------------------------------|---|---|--|---|
| Window Open | 4/29/2013 | 8/12/2013 | 6/27/2014 | 10/17/2014 | 10/30/2014 | 6/18/2015 | 8/5/2015 |
| Window Close | 6/28/2013 | 9/26/2013 | 7/28/2014 | 11/17/2014 | 2/27/2015 | 7/20/2015 | 9/4/2015 |
| Objective | Operational Performance | | Reliability Criteria - Thermal | Reliability Criteria Thermal and Voltage; TO Criteria | Long Term Reliability Criteria: TO Criteria; Market Efficiency | Reliability Criteria - Thermal and Voltage; | TO Thermal Criteria, TO Voltage Criteria; Light Load Thermal and Voltage |
| Flowgates (violations) | 1 | 25 | 112 | 311 | 77 | 306 | 22 |
| Total Proposals | 26 | 17 | 106 | 79 | 118 | 91 | 23 |
| Entities | 7 | 6 | 15 | 14 | 22 | 9 | 4 |
| Cost Range | \$100M- \$1.5B | \$0.19M - \$528M | \$0.02M - \$1.4B | \$0.2M - \$450M | \$0.1M - \$432.5M | \$0.013M- \$167.1M | \$.075 - \$31 |
| Proposals approved by PJM Board | 1 | 1 | 22 | 34 | 16 | 20 | 6 |
| Approved Greenfield Projects | 1 ⁽¹⁾ | 0 | 0 | 4 | 0 | 0 | 0 |
| Approved Upgrade Projects | 1 ⁽¹⁾ | 1 | 22 | 30 | 16 | 20 | 6 |
| Approved Incumbent | 1 ⁽¹⁾ | 1 | 22 | 33 | 16 | 20 | 6 |
| Approved Non- Incumbent | 1 ⁽¹⁾ | 0 | 0 | 1 | 0 | 0 | 0 |