

Invenergy Comments re: PJM Interconnection Process

January 6, 2021

Provided below are Invenergy's written comments that address the questions PJM raised to stakeholders in advance of the Interconnection Process Workshop 2 on December 11, 2020:

How do you find the process is working?

- As mentioned by several stakeholders during Workshop 2 on December 11, 2020, the current study delays for projects in the interconnection queue are unacceptable and are likely to get worse unless PJM and the stakeholder community make changes to the process.

Where are you experiencing issues?

- Facilities Study delays are particularly problematic. The uncertainty and potential exposure of Network Upgrade Costs for interconnection projects at this stage of the process makes it difficult to make informed investment decisions.
- The Feasibility Study segment of the interconnection process is useless because it fails to yield accurate estimates of expected upgrade costs. PJM should eliminate it or make it optional.
- The serial interconnection process causes Facilities Studies delays because the scopes of study retools change frequently as projects drop out of the queue. PJM could reduce Facilities Study delays by moving to a clustered study process. A clustered process would reduce retool iterations by 1) reducing the likelihood that projects drop from the queue because studies assign 100% of cost for large upgrades to a single project, and 2) preventing the scope of cost allocation from expanding beyond a single queue window.
- We would like PJM to combine the Interconnection Service Agreement (ISA) and Interconnection Construction Service Agreement (ICSA) into one agreement. Having them both is redundant and unnecessary.
- We experience issues with the affected system study process, both in the case when PJM identifies another RTO/ISO/Utility as the affected system or vice versa. Specifically, we have experienced the following issues:
 - Lack of coordination between PJM and the relevant RTO/ISO/Utility.
 - Lack of clarity regarding who is responsible for driving and coordinating the affected system study process.
 - Lack of clarity regarding the methodology, timelines, and costs associated with the affected system process.
 - Significant delays in the completion of affected system studies.

- Identification and allocation of very large upgrades costs that are primarily due to pre-existing overloads.

We believe that PJM needs to work with RTOs/ISOs/Utilities that have seams with PJM to establish a clear methodology, timeline, cost, coordination process, and responsibility delineation for conducting affected system studies. Otherwise, this process can create unnecessary delays or make projects unviable in PJM and/or RTOs/ISOs/Utilities that have seams with PJM.

What are your thoughts on challenges PJM may face given the trends that PJM laid out in Workshop 1?

- We are skeptical that increasing financial requirements to remain in the queue will materially improve interconnection delays. We arrive at this conclusion based on 1) our experience in other markets (e.g. MISO), and 2) the feedback presented by stakeholders during the Workshop 2 on December 11, 2020. PJM should focus on other solutions to mitigate delays. If PJM does propose to increase financial requirements, we think that at a minimum it also needs to build offramps into the interconnection process that allow for penalty free withdrawal.
- PJM needs to hire more internal staff or consultants to process studies more effectively. While not PJM's purview, Transmission Owners similarly need to hire additional staff to process interconnection requests in a timely manner. Creating barriers to entry, as opposed to staffing up to embrace the rapidly evolving electricity system, is bad policy.
- PJM needs to develop a robust transition plan when moving from the status quo to the new interconnection process. This will ensure a fair and smooth transition for all projects currently in the queue.

What are your top three objectives when entering the PJM Queue or what would you like any process improvements to do?

- Invenergy's top three objectives when entering the PJM Queue are as follows:
 1. Obtain executed interconnection service agreements in a timely manner.
 2. Receive a clear understanding of final interconnection upgrade costs as early in the study process as possible.
 3. Minimize the amount of collateral required to keep projects in the interconnection queue.

Invenergy appreciates the opportunity to provide comments and looks forward to continued discussions on this important topic.

Sincerely,

Invenergy LLC