PJM Interconnection Process – Challenges and Possible Improvements

Interconnection Process Workshop 2 – Stakeholder Presentations December 11, 2020

Brook Knodel
Head of Transmission Engineering, Offshore North America

Orsted

Status of PJM's Interconnection Process

- □ Market forces and public policy are driving significant changes
- □ PJM's existing interconnection processes were developed in a different era with different needs
- □ Recent increases in the quantity and type of generation resources have resulted in the existing process becoming...

Inefficient



Inaccurate



Slow





Status of PJM's Interconnection Process (cont.)

Inefficient & Inaccurate

- Study process assumes all projects in the queue will be built when historically 85% of new requests withdraw prior to commercial operation
- These assumptions result in the identification of a significant amount of ultimately unnecessary upgrades
- The uncertainty in expected network upgrades create significant risk for generation developers
- This uncertainty is highly disruptive to efficient and timely decision-making, planning and execution





Status of PJM's Interconnection Process (cont.)

Slow

- The multi-stage interconnection process takes 2-4 years to complete
- The planning process forces developers to lock in design specifications for significant periods of time (e.g. duration of Facility Study)
- The inability of developers to know if they are able to modify design to incorporate technological advancements can ultimately lead to delays and higher costs to ratepayers for state-sponsored projects





Recommended Interconnection Process Improvements

The interconnection process needs to reflect the new technology and policy realities that are changing the grid

- Ørsted strongly supports the allocation of additional resources to the interconnection process at all levels. These additional costs could be equitably borne by generation and transmission developers allowing for:
 - Better collaboration and communication amongst developer,
 PJM and Transmission Owner throughout the process
 - Reduction of backlog and improved study completion timelines
 - Greater accountability on all stakeholders to provide responsive inputs throughout the interconnection process
 - Improvements to cost estimating accuracy (e.g. -50/+200%)





Recommended Interconnection Process Improvements (cont.)

- Revision of the planning process to better screen speculative or redundant projects
- Reform of milestone requirements to better align with the needs of specific generation technologies
- Greater empowerment of PJM staff to resolve questions and disagreements between developers and Transmission Owners
- Clearly stated and defined processes to accommodate grid upgrades for state public policies via the RTEP process
 - e.g. the recently announced collaboration between PJM and the NJ BPU using the State Agreement Approach (SAA) to evaluate strategic transmission upgrades for the offshore wind industry



