Planning for Large Load Additions

Planning Committee
January 7, 2025

IMM

Monitoring Analytics

Large Load Additions

- Large load additions can result in significant market impacts.
- Large load additions can result in significant reliability impacts.
- For example, the capacity market is currently extremely tight.
  - Adding large loads could reduce the actual reserve margin below the target.
  - Adding large loads could mean clearing at the VRR maximum price for an extended period.

Planning for Large Load Additions

- The addition of large loads should be explicitly incorporated in the PJM planning process.
- Adding large loads is analogous to adding new generation.
  - Impacts on markets
  - Impacts on transmission
  - Impacts on reliability
- There should be a queue for large load additions as there is for generation.
- PJM should ensure that reliability is maintained and not add large new loads if they threaten reliability.

Planning for Large Load Additions

- New load must be served.
  - New load must be served reliably.
- New large load additions must be served.
  - New large loads must be served reliably.
- Existing load must be served.
  - Existing load must be served reliably.

Planning for Large Load Additions

- **The question is how to serve the potentially very large total increases in load in a way that does not threaten reliability or the ability of PJM markets to reliably serve all load at the lowest possible cost.**
- **The addition of large loads is not a private decision that should be addressed via private negotiations on generator Interconnection Service Agreements (ISAs).**

Planning for Large Load Additions

- **The addition of significant new loads should go through a complete PJM analysis and planning process that includes addressing system reliability and is not narrowly limited to local transmission issues or broader transmission issues alone, even if that process is time consuming.**
- **Every new generator and every large load addition should go through this process. PJM is a complex, interactive system. There are no short cuts.**

Planning for Large Load Additions

- **PJM planning should be comprehensive and include the addition or retirement of transmission, generation and load.**
- **PJM should do comprehensive planning and explicitly plan for large load additions in the same way that they plan for new generation and new transmission.**
- **There should be an orderly queue, including milestones to verify additions, and large loads should not be added until they can be reliably served without disrupting markets for other customers.**

Issues

- PJM planning (all of PJM and not the Planning Department) needs to address comprehensive planning of generation, transmission and load.
- PJM markets address new generation.
- PJM transmission planning addresses new transmission.
- Transmission owners address local issues through necessary studies and supplemental projects.
- EDCs address requests to interconnect.
- The issue is that PJM does not address all three elements of comprehensive planning.

Next Steps

- **PJM and PJM stakeholders need to address these gaps in planning:**
  - **Ignore the issues? Laissez faire?**
  - **Alternative approaches?**

Related Information

- **FERC Docket No. AD24-11 – Large Loads Co-Located at Generating Facilities**
- **Post Technical Conference Comments of the Independent Market Monitor for PJM**
  - **https://www.monitoringanalytics.com/filings/2024/IMM_Comments_Docket_No_AD24-11_20241216.pdf**

Monitoring Analytics, LLC
2621 Van Buren Avenue
Suite 160
Eagleville, PA
19403
(610) 271-8050

MA@monitoringanalytics.com
www.MonitoringAnalytics.com