

PJM Interconnection 2750 Monroe Blvd. Audubon, PA 19403

VIA ELECTRONIC FILING

Dec. 23, 2024 Mr. Bernard Logan, Clerk c/o Document Control Center State Corporation Commission Tyler Building – First Floor 1300 East Main Street Richmond, Virginia 23219

RE: SCC Ex Parte: Electric Utilities and Data Center Load Growth – Technical Conference Case

No. PUR-2024-00144

Dear Mr. Logan:

PJM Interconnection, L.L.C. (PJM) hereby submits the following public comments in the above mentioned **Case No. PUR-2024-00144.**

Please do not hesitate to contact the undersigned with any questions regarding this submission.

Regards,

/s/ Lori Murphy Lee Lori Murphy Lee Senior Manager PJM Interconnection, L.L.C. 2750 Monroe Boulevard Audubon, PA 19403 (202) 768-2628 Lorimurphy.lee@pjm.com



Public Comments of PJM Interconnection, L.L.C.

Introduction

PJM Interconnection, L.L.C. (PJM), respectfully submits the following comments to the Virginia State Corporation Commission (VA SCC or Commission) in the open docket in Case No. PUR-2024-00144 to explore the current and projected future challenges presented by the growth of large-use, retail electric customers. PJM offers these comments as the independent, federally regulated regional transmission organization (RTO) responsible for ensuring reliable power delivery across the bulk electric system for all or part of 13 states and the District of Columbia, including a majority of the Commonwealth of Virginia. Ensuring a safe and reliable bulk power system – keeping the lights on – is PJM's most important priority.

For a few years now, PJM has been expressing its concerns about maintaining system reliability – specifically resource adequacy – based upon the following trends:

- Electrification coupled with the proliferation of high-demand data centers resulting in material forecasted load growth for the foreseeable future
- · Retirement of thermal generators at a rapid pace due to policy and economic pressures
- Slow new entry of replacement generation resources due to a combination of industry forces, including siting, permitting and supply chain constraints
- The significant volume of resources in the interconnection queue that are being processed pursuant to FERC's order on PJM's interconnection process reform, with a high proportion of the queue consisting of intermittent resources that don't have the same capacity value and operational characteristics as the retiring thermal generating fleet

Based upon the first trend cited above, the increase in load growth due in no small part to the proliferation of data centers in the footprint is a major driver for PJM's resource adequacy concerns. PJM applauds the Commission for holding a technical conference to discuss this matter, especially due to the proliferation of data centers in Northern Virginia.

PJM will discuss two topics in these comments: (i) load forecasting and (ii) colocation, providing references to resources that the Commission can utilize for education as it analyzes this topic of large load increases on the system.

Load Forecasting

PJM issues an annual updated long-term forecast model, providing a 15-year load projection. The model includes peak usage, net energy consumption, load management and data on distributed solar generation and plug-in electric vehicles. The report provides forecasts for each PJM zone, locational deliverability area and the whole PJM region. Load growth is trending upward at a significant pace due primarily to the proliferation of data centers that are locating in the PJM region, many of which are located in Northern Virginia.

There is a stakeholder group that is dedicated to the advancement of PJM's annual long-term forecast – the Load Analysis Subcommittee (LAS). That group is currently meeting, with a long-term forecast slated to be finalized in January of 2025. The webpage for the LAS can be found <u>here</u>.





The materials found on this webpage express a likelihood that PJM's load forecast will be increasing dramatically in 2025. This is a slide that was recently presented by PJM expressing, preliminarily, that potential increase.

PJM will keep the Commission abreast of events occurring in the LAS, including any final load forecast data that is released by PJM.

Colocation

As large loads like data centers continue to proliferate, colocation arrangements are becoming more prevalent on the system. Colocation is the desire of energy-intensive load customers to connect directly with generation resources, particularly carbon-free nuclear generators, on the bulk transmission system¹ rather than connect through the local public utility on the distribution system. PJM has been working with its stakeholders on colocated load issues since at least 2022,² but those efforts did not result in governing document revisions. Given the impasse, PJM issued a guidance document³ that explains processes and optionality for colocated load under PJM's existing governing documents.

¹ A colocated load configuration refers to end-use customer load that is physically connected to the facilities of an existing or planned Customer Facility on the Interconnection Customer's side of the Point of Interconnection (POI) to the PJM Transmission System (colocated Customer Facility).

² See Capacity Offer Opportunities for Generation with Co-Located Load (initiated Jan. 12, 2022; completed Aug. 9, 2023).

³ PJM Guidance on Co-Located Load (posted March 22, 2024; updated April 17, 2024).



PJM's preference is that colocated load in PJM be integrated as PJM Network Load, which is synonymous for being "in front of the meter." This way, should the colocated generator take an outage, the colocated load will be served by the larger PJM system. With data centers being integral to national security, this is a sensible approach for the data center itself. Connecting in front of the meter will also result in the colocated load being fairly allocated transmission costs as well as energy/ancillary services costs.

Regardless of whether the load is located in front of or behind the meter, PJM will study the configuration to make sure that it does not adversely impact the reliability of the system. After PJM is notified of any planned modifications to a generation facility, PJM will undertake its Necessary Studies process to evaluate the potential reliability impacts.

The Necessary Studies, which are also reviewed by the local Transmission Owner (who performs its own studies as well), ensure there are no adverse impacts to the transmission system prior to the approval of the addition of colocated loads to a generation facility. If transmission issues are identified, any required system upgrades to support the requested configuration must be implemented at the cost of the generator modifying the facility before the colocated load addition is permitted at the cost of the generation facility.

PJM recently testified at the FERC Technical Conference on colocated load, and its comments can be found <u>here</u>. A number of substantive topics were discussed in these comments, including the various configurations of colocation and broader concerns around reliability and cost.

Conclusion

Large load additions, especially in the form of data centers, are proliferating across the PJM system and especially in the Commonwealth of Virginia. PJM applauds the Commission for holding this technical conference, and hopes to serve as a resource as the Commission advances policy and regulatory frameworks associated with this important matter.