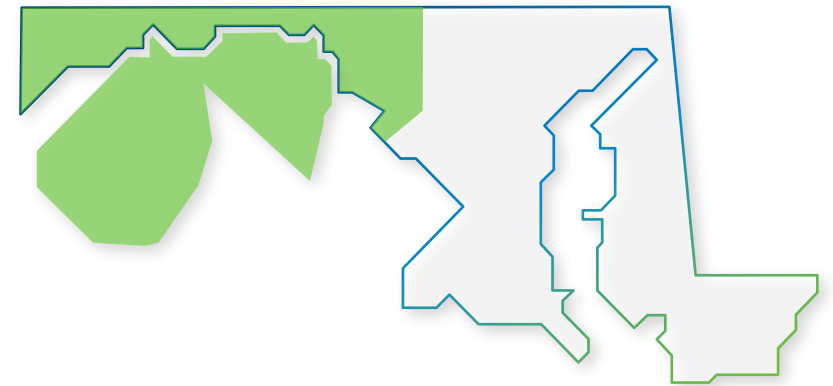




Lighting the Way

Frederick County Data Center Workgroup

Public Meeting 12/13/2023



December 13, 2023

Process to determine whether Potomac Edison can serve a large customer

■ Detailed Load Study (DLS)

- Detailed engineering study conducted by FirstEnergy.
- Written DLS report provided to customer upon completion.
- Required before a project to serve a customer is initiated.
- Report provides customer with project cost estimates, construction timeline estimates and connection requirement details.

■ Process

- Customer works with FirstEnergy customer representative (Customer Accounts or Economic Development).
- Customer required to sign study agreement and pay study fee deposit for a DLS depending on size of load (<10MW = \$5k; 10MW or more = \$10K).
 - Upon completion of the DLS, a “true-up” of the actual costs of the study will be communicated to the customer for final payment.
 - Customer would be notified in advance by the FE customer representative if the cost of the study is expected to exceed deposit. *(continued next slide)*



Process to determine whether Potomac Edison can serve a large customer

■ Process *(continued)*

- The Customer rep communicates request to transmission Planning.
- Transmission Planning & Protection reviews request for completeness (site, load size, site plan, one-line, etc.) and proceeds with study.
- A detailed report of study is provided to customer, including cost estimates and construction timelines.
- Customer would elect to proceed with construction of the delivery point if satisfied with report and an agreement would be executed.



■ Timelines

- DLS are completed within a 6 month timeframe of receiving a complete application.
- Customer has 12 months upon receiving DLS report to notify FE of desire to proceed with the project.
- Upon customer signing agreement to proceed, project must go through PJM Attachment process, a minimum of 3 months to complete.

How is power brought onto the grid?

- PJM administers the interconnection of new and upgraded generation resources.
- PJM continually performs planning analyses (Regional Transmission Expansion Planning) to ensure system reliability and generation deliverability to all PJM load. Short term studies look out 5 years and long-term studies look out 15 years.

The Process:

- Proposal – New project proposals are entered into a cycle by the deadline announced six months in advance.
- System Impact Study – PJM conducts multiple impact studies to perform detailed analyses and develop planning estimates for system upgrade costs and timing.
- PJM does not approve projects. It studies a project's impact on the grid and the costs to interconnect. The project developer pays for the studies.
- Interconnection Facilities Study – Detailed design work is performed for all required network transmission upgrades and attachment facilities.
- Generation Interconnection Agreement – A Generation Interconnection Agreement is executed among the generation developer, the Transmission Owner to which the generator will be connected and PJM. The agreement establishes the terms and conditions that will govern the interconnection and the rights that accrue to the generation developer.



Electrically speaking, why is the former Eastalco site attractive for data center development?

- The Quantum Loophole campus is a now-closed industrial site with existing transmission lines proximate to the grid. Because the former Eastalco plant was an energy-intensive customer, significant infrastructure, including 230-kV transmission lines, is already in place to serve the property.



Could data centers in Frederick County “use up all the power so there isn’t enough for new customers and everyone else?”

- The connection of the Quantum Loophole campus will not impact Potomac Edison’s delivery of safe, reliable power to area customers. Potomac Edison conducted a detailed analysis of Quantum Loophole’s power requirements and has developed a robust transmission solution that will meet the demands of the campus while providing improved reliability and additional capacity for the area.



How is power allocated to customers?

Does one class take preference over another?

- Potomac Edison has an obligation to serve all customers.
- Potomac Edison cannot prioritize or allocate energy delivery for specific customers or types of customers. When restoring power in the aftermath of a storm, however, Potomac Edison does give priority to hospitals and other critical medical facilities, communications facilities, and emergency response agencies.



How is the power Potomac Edison delivers generated?

How do we know if there is “green energy?”

- Due to Maryland’s electric restructuring in 1999, Potomac Edison is precluded by law from owning or operating generation in Maryland.
- The company does procure generation through our Standard Offer Service for customers who choose not to shop the generation portion of their bill.
- That procurement is required to comply with the Maryland Renewable Portfolio Standard law that sets minimum percentages of renewable energy in the generation mix.
- Potomac Edison is in compliance with that requirement.



Who pays for all the infrastructure needed to serve data centers? New customers in general?

- A Customer pays for infrastructure serving that customer.
- The developer of Quantum Loophole will pay for the lines and equipment that will solely serve the property.
- Potomac Edison customers' **electric distribution rates will not increase** because of the construction of the new data center. Developers pay for the work needed to hook up electric distribution service.
- Any Regional Transmission upgrade that would benefit all is paid by all through the Transmission rates.



Additional and cited resources

[Additional and cited Resources:](#)

[PJM Learning Center - Home](#)

[PJM Learning Center - Three Priorities](#)

[PJM Learning Center - Planning for the Future](#)

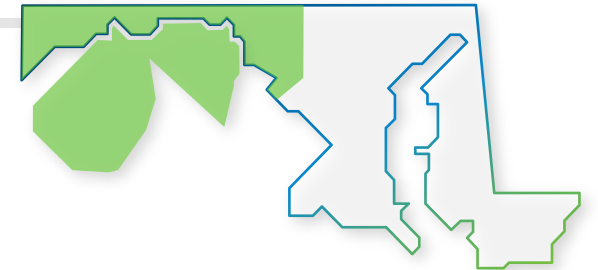
[PJM Learning Center - Connecting to the Grid FAQs](#)

[PJM Learning Center - Explaining Power Plant Retirements in PJM](#)

[PJM: Ensuring a Reliable Energy Transition](#)



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