

BILL NUMBER: **HOUSE BILL 1219**
Maryland Co-Location Energy Innovation and Reliability Act

COMMITTEE: **Economic Matters**

HEARING DATE: **February 21, 2025**

SPONSOR: **Delegates Miller, Hornberger, Mangione, T. Morgan, Pippy, Rose, and Tomlinson**

POSITION: **Favorable**

Chair C. T. Wilson, Vice Chair Brian M. Crosby and Members of the Committee,

As a resident of Maryland and a professional electric power engineer I ask for a favorable report on Bill HB 1219 – Maryland Co-location Energy Innovation and Reliability Act.

The subject has been investigated and reported on by the Public Service Commission and the Federal Energy Regulator Commission (FERC). FERC Orders regarding colocation of generation with datacenters is evolving. In the meantime, the PSC should be deeply involved in consideration of behind the meter, the situation addressed in this bill

Since the issues are sophisticated and fairly deep in terms of electric power concepts, what follows are my notes from the PSC Conference on Co-location.

Background

In 2024, Senate Bill 1, Chapter 537, of 2024 (“SB1”) required the Public Service Commission to study and make recommendations by December 15, 2024, to the Senate Committee on Education, Energy, and the Environment and the House Economic Matters Committee on issues related to the utilization of end-use electricity customer load that is physically connected to the facilities of an existing or planned electric generation facility, also known as co-located load configuration.

In its SB1 co-location report, the Commission’s findings addressed:

- 1)Impacts to Maryland ratepayers
- 2)Impacts to PJM markets (wholesale, capacity, energy, and ancillary) and planning functions
- 3)Impacts to the reliability of the electric transmission and distribution systems serving Maryland
- 4)Mitigating measures to address any of these impacts.

On September 24, 2024, the PSC held “Technical Workshop PC 61”. The panel included representatives on behalf of: PJM Interconnection, Monitoring Analytics, Inc., and Reliability First Corporation. The participants’ functions are:

PJM - The datacenters could be connected either as “network load” or “non-network load.” PJM would prefer datacenters being connected as network load to enhance reliability. PJM has 8000 megawatts in requests for colocation from datacenters.

Each Transmission Owner must perform what PJM calls a “necessary study.” These would include, 1) rate of demand increase, 2) retiring generation, 3) whether replacement generation is intermittent (such as wind or solar) and if slow to interconnect.

PJM admits that its only answer to load demand is more transmission lines – this was a frequent criticism from the Market Monitor during the discussion.

Reliability First - Positives and negatives to consider with colocation: 1) speed – colocation may provide a faster delivery of power to the datacenter than the traditional process, 2) cost – the states must consider cost fairness, 3) reliability for the datacenters, including “power quality”

Additional Colocation considerations:

- 1) Could result in fewer transmission lines and less power loss to the system. Additional power sources may be needed as a result of removing a generation source from the overall system.
- 2) Could provide flexible loads at the datacenter site but more colocations means more complication for the system
- 3) Financial danger of substations and transmission lines being built and then only some of the anticipated datacenter load materializes. Money would be spent building infrastructure that is not being used but still has to be paid for by ratepayers.
- 4) Assigning a generator to a datacenter functions like a loss to the grid. New system infrastructure (generation and transmission) will be needed to compensate.
- 5) Cybersecurity – a huge question if the datacenter is tied directly to a nuclear power plant.
- 6) Huge power swings – when a datacenter comes offline or its generator trips. Colocation will need additional infrastructure to prevent voltage collapse.
- 7) What if a nuclear power plant needs to come offline permanently? What if this is a sudden and unexpected development?

Reliability First’s major concern – Maryland is a resource deficient area. (Presently, MD only generates 60% of the energy it requires.) The Market Monitor agreed that he is also worried about voltage collapse.

The focus should be on reliability:

- 1) What is the reliability impact of all the colocation requests taken as a whole?
- 2) Flexibility and diversity of resources, a mix of resources is needed.
- 3) What is needed is for the State of Maryland to enhance reliability without delay – provide support for underutilized tools like demand response and distributed resources.

Market Monitor - Competitive markets should not be done by PJM on a case by case basis – PJM needs to think comprehensively. It is not possible for significant load to be “off the grid.” Decreases in available generation effect all. PJM’s “necessary consideration” is not sufficient to address reliability issues. Loads should not jump the queue. Backup power is a big issue.

PJM does not have the authority and should not be setting policy. PJM should not have assumed the authority to permit Susquehanna Nuclear to connect with Microsoft. FERC must set policy.

Market Monitor on Capacity Markets – Maryland has the highest capacity prices in PJM. Without significant changes, prices will increase. The next auction could be \$700/ megawatt.

Does it makes sense for colocated loads to get special treatment? (Implies not.)

PJM's Regional Transmission Expansion Plan (RTEP) is solely focused on transmission and that is a mistake. PJM relies on the capacity market (the price of power) to be the sole impetus for new generation, which is not working. Generators are never given an opportunity to compete with transmission, which creates a gap. That lack of competition creates a problem.

Agrees with PJM that colocation should be network connected so that the load (datacenters) pay their share for ancillary services such as voltage and frequency supports, blackstart and power quality. In any case whether a colocation facility is in network or non-network, it should pay its fair share for blackstart, cranking path and spinning reserve services.

Reliability First - Concerned about the pace of change as well as the speed at which a datacenter can be built versus the time it takes to build the infrastructure (transmission and generation) to provide power to the site. Concerned about resource adequacy. (PJM agrees.)

All three parties agree that the state needs to take an active role in setting policy and the Federal Energy Regulatory Agency (FERC) is the final authority. All asked PSC to be an active participant at the FERC Technical Conference on Colocation on Nov. 1, 2024.

Conclusion:

Bill 1219 is absolutely necessary to empower the PSC to review the momentous ramifications of colocation of generation to high energy use hyperscale datacenters. I ask for a favorable report.

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