February 21, 2025

HB1219 (SB947) Pavlak FWA

Maryland Co-Location Energy Innovation and Reliability Act

HB1219 IS BASED ON A SOUND VISION OF THE FUTURE OF DATA CENTERS

- Grid-connect is unwieldy and expensive when the size gets large (>100MW).
- Co-locating data centers off the grid with high availability hybrid nuclear plants is a better mousetrap for GW+ scale systems
- Northern VA is evolving a grid connect paradigm.
- Maryland has an opportunity to host co-located off-the-grid system leaders

RAPID CONSTRUCTION IS CHALLENGING

- 3 years to build a data center and natural gas plant, 8 years to build a NPP
- Begin construction of all 3. Power the data center using the natural gas plant while the NPP is under construction.
- When the NPP starts up, the natural gas capacity transitions to low-capacity factor backup.

ADDRESSING GHG EMISSION CONCERNS

- A high availability collocated power plant consisting of a single legacy nuclear reactor with fossil fuel backup has GHG emissions of roughly 10% of that of a fossil fuel fired grid connect system.
- An optimized high availability NPP with multiple SMRs can have emissions around 1% that of an all-fossil fuel fired grid connect system.
- Zero GHG emission is ultimately feasible.

PROPOSED AMMENDMENT, ADD THE FOLLOWING TO § 7-207.4(D)(7)(II)

THE ENVIRONMENTAL IMPACT OF THE GENERATING STATION *INCLUDING A PLAN TO REDUCE GHG EMISSIONS TO LESS THAN 10% OF TOTAL ENERGY CONSUMPTION WITHIN 10 YEARS AND AN EVENTUAL GOAL OF <1%;*

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