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BILL NO.: Senate Bill 116 – Data Center Impact and Analysis Report

COMMITTEE: Education, Energy, and the Environment

HEARING DATE: February 13, 2025

SPONSOR: Senator Lewis Young

POSITION: Favorable

The Office of People's Counsel ("OPC") supports Senate Bill 116. As technological advances like artificial intelligence and cloud computing drive continued demand for data storage, the proliferation of data centers brings substantial risks to residential customers because of their high energy demands. SB 116 would begin to address this uncertainty by requiring the Maryland Department of the Environment, the Maryland Energy Administration ("MEA") and the University of Maryland School of Business to conduct an analysis of the likely environmental, energy, and economic impacts of data center development in the State.

Data centers require enormous amounts of energy to operate. For example, in Virginia, Dominion Power forecasts 7.5 GW of new data center power demands for 2027. That is more electric demand in three years than the total electric peak demand of Maryland's largest electric utility, Baltimore Gas and Electric, which was built up over 100 years. Depending on where it is located, this unusually fast ramp up of demand has the potential to strain the State's resources and has the potential to require infrastructure expansions, for which Maryland utility customers could be asked to pay.

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¹ See Electric Power Research Institute, Powering Intelligence: Analyzing Artificial Intelligence and Data Center Energy Consumption at 6 (May 2024) ("A typical new data center of 100 to 1000 megawatts represents a load equal to that of a new neighborhood of 80,000 to 800,000 average homes."), https://www.epri.com/research/products/000000003002028905.

At the same time, significant questions remain about when, where, and how much data center demand will materialize in Maryland and elsewhere. Existing data center load forecasts, developed by the utilities and the regional system operator, PJM Interconnection LLC, are uncertain and the details are not publicly shared. There is little transparency in how data center load forecasts are developed, and there is no standard data center load forecasting methodology. Each utility takes its own approach to developing its data center load forecasts, but not all data center load is equal. For instance, projected load from hyperscale data centers—typically developed by cloud computing providers—may ramp up more rapidly than load from co-location data centers—data centers owned and operated by third-party providers that lease out space. Data center companies may be in discussion with multiple utilities in different states about a single project. There is also uncertainty over the extent to which advances in technology and operational procedures will increase data center energy efficiency and make data center load more flexible. As the Illinois Commerce Commission recently found, "many planned data center projects may not come to fruition" and costs associated with data center development are "speculative." Rushing to build out generation, distribution, or transmission resources based on such speculation risks encumbering Maryland ratepayers with investments that may ultimately be underutilized or unnecessary.

While the landscape of data center development continues to evolve, SB 116 would chip away at this uncertainty by obligating MEA to assess the energy impacts of the data center industry in Maryland. Specifically, MEA would assess (1) the energy requirements of data centers; (2) potential impacts of the industry on forecasted energy supply and demand, including effects on infrastructure needs and ratepayer costs; and (3) the impacts of the industry on the State's ability to meet greenhouse gas emissions reduction commitments and clean energy goals. This assessment could help develop the regulatory framework needed to govern large-load requests from entities like data centers and to inform future policy decisions that balance economic development in the State with the interests of residential utility customers.

Recommendation: OPC requests a favorable Committee report on SB 116.

² Ill. Commerce Comm'n Order No. 629460 (Dec. 19, 2024) at 149.