February 11, 2025

Senate Education, Energy, and Environment Committee
Maryland General Assembly
Room 2 West
Miller Senate Office Building
Annapolis, Maryland 21401

Re: SB0116: Data Center Impact Analysis and Report

Chair Feldman, Vice Chair Kagan, and Members of the Senate Education, Energy, and Environment
Committee:

Thank you for this opportunity to comment on SB0116, Data Center Impact Analysis and Report, brought
forward by Senator Karen Lewis Young. I write to you today on behalf of the National Parks Conservation
Association (NPCA). NPCA is a nationwide nonprofit, nonpartisan organization dedicated to protecting
and enhancing America's national parks for present and future generations. We are proud to have more
than 1.6 million members and supporters nationwide, with more than 32,000 of those members in
Maryland. We write today with in full support of SB0116, which presents a critical first step towards the
sustainable development of data centers in the state of Maryland.

Data centers are large, warehouse-like buildings, often 250,000 or more square feet each, that
essentially store and operate the world's internet. These buildings are filled with racks of computer
systems that store data like pictures and videos, as well as provide the computational power for the
growing Artificial Intelligence (AI) sector. There are many types of data centers, from small and
innocuous facilities in the basements of colleges or hospitals that store only that locations' data, to
facilities that operate solely for the purpose of mining cryptocurrency, to large facilities operated solely
for the needs on one company like Amazon or Google, and finally for massive colocation data center
facilities operated by companies like QTS and Compass Data Center, which essentially rent data storage
space or computational power to other offsite entities.

Data centers require a tremendous amount of land, energy, and water to operate. That is why proper
study and planning before the industry dramatically expands in Maryland is essential to ensuring the
state continues to meet its various land and tree preservation, Chesapeake Bay restoration, and carbon
reduction goals. In Virginia, data centers are currently consuming approximately 5 gigawatts of
electricity, more than 3.5 times the generation capacity of the Brandon Shores coal-fired power plant. In
Virginia, the state's leading electric utility, Dominion Energy, is predicting demand to rise to
approximately 13 gigawatts in 15 years[1], more than double the amount of energy consumed by New York

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[1] Virginia State Corporation Commission eFiling, Rebuttal Testimony of Virginia Electric and Power Company, Figure
2, Filed 9/5/23, https://www.scc.virginia.gov/docketsearch/DOCS/7%25h501!.PDF.

City on an average day[2]. This explosive energy demand is threatening state and regional climate goals as more natural gas is planned to be brought online to meet this energy demand.

A recent study by Virginia's Joint Legislative Audit and Review Commission called meeting rising energy demand from data centers in the state as "very difficult."[3] This report highlighted the potential energy needs for meeting this rising demand. In the report, analysts state that Virginia would need to add a new natural gas plant to the state every 18 months, would need to double its current rate of solar energy deployment, would need to significantly exceed planned offshore wind capacity, and relies on nuclear technologies not yet developed. All of this combined would cost billons of dollars to execute, and would cause Virginians electricity bills to rise by as much as $444 annually.

Moreover, this rising energy demand is causing a strain in the regional grid managed by the Pennsylvania-New Jersey-Maryland Interconnection (PJM). In December of 2023, PJM unveiled a proposal to meet current data center energy demand in Northern Virginia. This proposal is set to cost more than $5 billion, and the cost of these upgrades will be borne by ratepayers in Virginia, Maryland, and other nearby states that are planning to construct new electric generation and transmission systems to meet this need. Currently, no rate structure system exists to ensure that these costs are footed by the data center industry instead of average ratepayers across the region. On segment of this planned infrastructure reboot around the PJM territory to meet this demand is the now-well-known Maryland Piedmont Reliability Project (MPRP). New massive transmission lines often pose threats to national parks, as they are currently planned to cross parks like the Chesapeake and Ohio Canal National Historical Park and the Appalachian Trail. Large, new transmission lines also spark fierce local community opposition, as we have seen around the MPRP.

Data centers also use a tremendous amount of water. A large data center, according to the Washington Post, can consume between 1-5 million gallons of water a day. That water is either let off as steam into the atmosphere or put back into the wastewater treatment system contaminated with coolant chemicals. Some localities across the United States are actively struggling to meet rising water demands of both a growing population and the data center industry. In one Oregon town, only three operational data centers use more than ¼ of the total water of the entire town, with more than 355 million gallons being used annually. Localities in Arizona are grappling with climate change induced droughts and already-permitted water withdrawals for data centers, possibly threatening the supply of drinking water for the region.

Lastly of concern, data centers require extensive amounts of land to operate. One proposed data center mega-facility in Prince William County, Virginia has secured a rezoning permit for more than 2,000 acres of land. As the industry's footprint continues to grow, developers are increasingly seeking to site these developments out of existing industrial zones and on sites that are currently forest or farms and often near important sites like national or state parks. For instance, the Prince William proposal is directly

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[2] New York City, Mayors Office of Climate and Environmental Justice, https://climate.cityofnewyork.us/subtopics/systems/#:~:text=NYC%20uses%20about%20the%20same,of%20power%20(NYISO%202022).

[3] Joint legislative Audit and Review Commission (JLARC), "Data Centers in Virginia," https://jlarc.virginia.gov/landing-2024-data-centers-in-virginia.asp.

adjacent to Manassas National Battlefield Park. In Maryland, data center complexes have currently been proposed near Monocacy National Battlefield Park and the Chesapeake and Ohio Canal National Historical Park. The significant air and water pollution from these data center developments could harm the visitor experience for both tourism and outdoor recreation at these park units, as well as damage sensitive habitat for wildlife.

Taken collectively, data centers pose a tremendous threat to Maryland's national parks, air, water, and climate. And while NPCA is not opposed to Maryland developing data centers and enjoying the economic benefits that they provide, it must proceed with the utmost caution, and the state should only develop data centers in a sustainable and thoughtful manner. For these reasons, an extensive study and the development of a statewide plan for data center development is a critical first step in ensuring the state continues to meet its ambitious climate, land preservation, and Chesapeake Bay goals.

Thank you for your consideration, and don't hesitate to contact me with any questions.

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