

February 21, 2024,

Written testimony for SB474- Certificate of Public Convenience and Necessity and Related Approvals - Definition of Generating Station (Critical Infrastructure Streamlining Act of 2024)¹

Position: UNFAVORABLE

Submitted by: Denisse Guitarra, MD Conservation Advocate, Nature Forward



Dear Members of the Senate Education, Energy, and the Environment Committee,

Nature Forward is the oldest independent environmental organization in the DC metropolitan region. For 126 years, Nature Forward has inspired residents of the greater Washington, DC, area to appreciate, understand, and protect their natural environment through environmental education, advocacy, and outdoor experiences. In our conservation advocacy we prioritize human health & access to nature, biodiversity & habitats, fighting the climate crisis, and sustainable land use. Nature Forward strongly **OPPOSES** and urges the Senate Education, Energy, and the Environment Committee to deny the passage of **SB474**.

This proposed legislation puts Maryland's climate goals, people and ecological health and wellbeing all at risk. Data centers consume massive amounts of energy and water for their operations and cooling, resulting in increased greenhouse gas emissions (GHG) and significant impacts to water withdrawal from our aquifers and damage to our streams through excessive stormwater run-off. They too often have direct negative effects on communities surrounding them, such as oppressive aesthetics, massive deforestation, increased sound &

¹ Available at: <https://mgaleg.maryland.gov/mgawebsite/Legislation/Details/SB0474?ys=2024RS>



noise pollution. We list our main concerns for this legislation below and ask for your consideration.

Data centers threaten our climate goals while increasing air pollution and exacerbating health illnesses

Via the 2023 Climate Solutions Act (CSNA) of 2023, Maryland established its greenhouse gas (GHG) reduction goals of reducing its emissions by 60% by 2031 and 100% by 2045.² The 2023 “Maryland’s Climate Pollution Reduction Report” states that the buildings sector is the largest consumer of electricity in the state of Maryland.³ By enacting SB474, Maryland will fall behind its climate reduction goals by essentially opening the doors to the data center industry to undo all the existing climate legislations, regulations, and goals the state has so ambitiously worked toward in the last few years.

Data centers contribute to the addition of GHG emissions. Data centers not only consume huge amounts of energy (primarily from carbon-based sources), but they also need back-up diesel generators in case of power outages, maintenance and during peak use/energy spikes. Using diesel generators is one of the most harmful ways to produce energy and has multiple negative health effects, such as lung cancer, cardiovascular disease & respiratory illnesses like asthma.⁴ Apart from the detrimental health impacts diesel engines produce, they also deplete ozone layers, which contributes to climate change.⁵ For health and environmental reasons, Marylanders simply cannot allow data centers to get generator exemptions via SB474.

² MD Climate Change Program. 2023. Available at:

<https://mde.maryland.gov/programs/air/ClimateChange/Pages/index.aspx>

³ Maryland’s Climate Pollution Reduction Report. December 2023. Page 34. Available at:

<https://mde.maryland.gov/programs/air/ClimateChange/Maryland%20Climate%20Reduction%20Plan/Maryland%27s%20Climate%20Pollution%20Reduction%20Plan%20-%20Final%20-%20Dec%2028%202023.pdf>

⁴ Health Effects of Diesel Exhaust. Available at: <https://oehha.ca.gov/air/health-effects-diesel-exhaust>

⁵ Learn About Impacts of Diesel Exhaust and the Diesel Emissions Reduction Act (DERA). 2023.

Available at: <https://www.epa.gov/dera/learn-about-impacts-diesel-exhaust-and-diesel-emissions-reduction-act-dera>



Data centers have overwhelming power needs, resulting in massive pressure on our electrical grid and reliance on polluting generators.

Data centers put a large energy strain on the local energy grid. Virginia, which currently holds half of the world's data centers, is facing grave threats to its carbon emission reduction goals and landscape impacts for massive transmission lines to power its enormous data centers, which have seen a significant peak in electricity demand in the last few years.⁶ Furthermore, in Northern Virginia, there are now over 4,000 commercial diesel generators of sizes ranging from 600- 3500kW (larger than a typical household generator which varies from 10-26 kW) to ensure data centers can continue to run even if the grid fails.⁷ The numbers are stunning: one data center can use up the same amount of energy as 50,000 homes.⁸ This demand has real-world consequences: Prince William County, VA saw a rise of 19% of GHGs emissions between 2005 to 2018, a time-period that matches the data center expansion increase in the county.⁹ Maryland has the opportunity to not repeat the mistakes made in Virginia by **not approving SB474**.

Data centers decimate our rural and natural lands

As seen in various data center locations across Northern Virginia, most data centers are sited away from urban locations, causing sprawl and destruction of our rural and natural lands.¹⁰

⁶ Data Centers Are Booming. Dec 2023. Available at:

<https://energyathaas.wordpress.com/2023/10/09/data-centers-are-booming/>

⁷ Fairfax, Loudoun, and Prince William Air Quality in Jeopardy. Feb 2023. Available at:

<https://www.pecva.org/region/loudoun/fairfax-loudoun-and-prince-william-air-quality-in-jeopardy/>

⁸ The Staggering Ecological Impacts of Computation and the Cloud. Available at:

<https://thereader.mitpress.mit.edu/the-staggering-ecological-impacts-of-computation-and-the-cloud/>

⁹ METROPOLITAN WASHINGTON CLIMATE PLANNING. June 2022. Page 19. Available at:

<https://www.pwcva.gov/assets/202206/Climate%20Planning%20Presentation%20for%20PWC%20EC.pdf>

¹⁰ Data centers may be nearing tipping point in Northern Virginia. June 2023. Available at:

https://www.bayjournal.com/news/growth_conservation/data-centers-may-be-nearing-tipping-point-in-northern-virginia/article_16c6281e-fff2-11ed-987c-07e765e5f710.html



Data centers cause irreplaceable damage to the holistic ecological health of our state and residents' health and wellbeing.^{11,12}

Data Centers increase water consumption and stormwater run-off

Data centers have a significant impact on water supply due to its water consumption for cooling needs. A data center may use, on average, five million gallons of water per day to cool off its machinery.¹³ Water withdrawal for data centers have consequences for our residents and for our aquifers and waterways. Data centers also increase pollution in our waterways. When we decimate forests and good agricultural land in increases in impervious surfaces brought by large data center developments, associated increase in stormwater and water pollutants will negatively impact nearby creeks, streams, rivers and, eventually, the Chesapeake Bay. A 2022 study done by NPCA in Virginia on the impact of data centers to local waterways found that tons of sediment and stormwater would be discharged into local waterways and stormwater, putting people and wildlife in danger.¹⁴ From the water consumption and from the water discharge side, data centers will dry up and pollute our water resources.

A Maryland based Data Center study is needed

Maryland needs to carefully review data center construction proposals. An environmental impact study will ensure that we consider the potential impacts holistically, and not just project by project. The study must include the impact of data centers on their energy and water

¹¹ 'Constant thudding': Noise from Jiffy Lube music venue frustrates nearby residents. August 2023. Available: <https://www.nbcwashington.com/news/local/northern-virginia/constant-thudding-noise-from-jiffy-lube-music-venue-frustrates-nearby-residents/3402803/>

¹² HB0723 / CH0541 - Natural Resources - Forest Preservation and Retention. Available at: <https://mgaleg.maryland.gov/mgawebsite/Legislation/Details/HB0723?ys=2023RS>

¹³ Data Centers. Nature Forward. 2024. <https://natureforward.org/2024-va-ga-introduction/>

¹⁴ New Report Finds Proposed Data Centers in Northern Virginia Threaten National Parks, Drinking Water. 2022. Available at: <https://www.npca.org/articles/3153-new-report-finds-proposed-data-centers-in-northern-virginia-threaten>



consumption, do a comprehensive environmental justice study, evaluate noise impact, grid capacity, and conduct a thorough cost analysis. Furthermore, if Maryland wants to continue to be a region's leader in climate change, it must opt into better and more sustainable practices, such as those recently passed in the European Union (EU) on data centers.¹⁵

Under our current public health, economic, and social crises, it simply does not make sense to add more air and water pollution by building data centers without restrictions in Maryland. On behalf of Nature Forward and our 28,000 members and supporters, **we ask the Committee to OPPOSE and not pass SB474.** Thank you for your time and consideration.

Sincerely,

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¹⁵ The EU Code of Conduct for Data Centres - towards more innovative, sustainable, and secure data centre facilities. 2023. Available at: https://joint-research-centre.ec.europa.eu/jrc-news-and-updates/eu-code-conduct-data-centres-towards-more-innovative-sustainable-and-secure-data-centre-facilities-2023-09-05_en