

ADDRESSING DATA CENTER ENERGY DEMAND

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WHY IT MATTERS

Virginia already hosts hundreds of data centers,¹ and the industry continues to grow with the expansion of **artificial intelligence**. A 2024 report by Virginia's **Joint Legislative Audit and Review Commission (JLARC)** found that in the next decade alone, data centers could nearly double the state's energy use.² **Dominion Energy** anticipates that by 2035, 51% of its electricity will go to power data centers.³ The profit potential associated with this industrial boom has proven so large that it has attracted **NextEra Energy's** attempted acquisition of Dominion.⁴

This growth poses a significant risk to Virginians' health, air quality, and wallets. Electricity bills are rising because utilities are making massive investments to serve data centers. Dominion recently raised household bills by \$8 per month, largely to pay for soaring prices as data center demand constrains regional energy supply.⁵ JLARC found that data centers could drive up Dominion's residential bills by an astounding \$444 per year by 2040.⁶

To make matters worse, utilities like Dominion and "merchant" power plant operators are trying to serve data center demands largely with harmful, expensive new gas power plants and related infrastructure. Dominion's most recent proposal – a 3,000-MW methane gas plant in Cumberland County – would be one of the largest gas plants in the nation (see *Preventing Fossil Fuel Buildout*, page 115).⁷ Proposals like this could create billions of dollars in public health harms and significantly increase electric bills, especially when factoring in the billions in fuel costs that customers would pay for.⁸

Data centers themselves contribute directly to local health harms, with thousands of highly polluting onsite "backup" generators, which operators may use increasingly often as their demand rises and grid supplies continue tightening (see *Data Center Siting & Transparency*, page 69).⁹

CURRENT LANDSCAPE

Some reforms are underway, but significant gaps exist and much implementation work remains. Dominion's new GS-5 rate class helps ensure data centers make use of the electricity infrastructure built to serve them, but does not require that they pay for the construction of that infrastructure. Legislation passed in 2026 encourages the SCC to make sure costs are fair, with some relevant cases pending, but does not offer specific guidance.

Virginia's recently passed budget raises data centers' energy consumption tax. This tax creates income for

Virginia's government, but is unlikely to rein in the industry. It does not lower electricity bills, and the tax alone will not steer the industry away from new, polluting fossil fuel infrastructure.

Uncertainty remains regarding how much new infrastructure will actually be needed to meet data center energy demand. Utility forecasts may overstate demand by counting interconnection requests submitted multiple times by the same project to different utilities.¹⁰ The SCC is required to investigate forecasting practices beginning in 2027.

Data centers' pressure on energy resources is most acute during "**peak demand**." 2026 legislation requires utilities to create voluntary programs for large customers to reduce or shift electricity use during peak periods. Utilities' programs, and their implementation, should be thoroughly vetted to ensure efficacy.

Data centers are eligible to become **accelerated clean energy buyers**, but long lag times to connect to utility infrastructure lead some operators to build **net-metered** gas-fired generation, not subject to **Virginia Clean Economy Act** retirement rules. This creates significant local pollution, threatens the transition to clean energy, and could even raise costs for utility customers.¹¹ Likewise, despite decarbonization mandates, Dominion has used data center demand to justify plans to build eight gigawatts of new gas-fired generation in the next 15 years (see *PJM Reform*, page 137). These plans threaten the environment, community health, and energy affordability.

Minor initial reform efforts are underway, many are incomplete, and significant further efforts are needed to ensure communities are protected from data center costs and pollution.

OPPORTUNITIES

Data center demand in Virginia is growing at an unsustainable pace. A pause on data center approvals would allow time for the queue to shrink and for additional safeguards to be put in place. State-level oversight over new large loads could ensure data centers built in Virginia do not threaten clean energy goals, raise electricity bills, or worsen public health.

Whether or not an approval pause is enacted, decision-makers could establish strong clean energy standards for data centers, including those with their own onsite power sources. Such standards could require data centers to use fossil fuel-free backup power and meet their electric needs with clean energy. Decision-makers could also improve ways to ensure data centers pay for their own clean energy,

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without raising electricity costs for others.

Significant further action is needed to require the data center industry to pay its fair share. Many areas of data center costs – including costs collected through **rate adjustment clauses (RACs)**, generation and transmission costs, and costs related to PJM markets – have yet to be addressed.

Finally, electric utilities should not build excessive infrastructure to serve data centers, especially as more companies seek to provide their own electricity or flexibility. Stakeholders can engage in upcoming proceedings around topics such as utility load forecasting and demand flexibility to push for strong standards and protections.

TOP TAKEAWAYS

Data center growth is increasing pollution and fossil fuel use, threatening public health, and driving up electricity bills. These problems will worsen without decisive action.

Some initial action has been taken, but programs and policies are limited or voluntary and pale in comparison to the scale of the challenge.

Decision-makers need to use all available tools to protect customers from subsidizing this industry and to ensure industry growth does not produce continued fossil fuel infrastructure build-out.

ENDNOTES

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Sunset on Smith Mountain Lake

Photo by David Vinson

