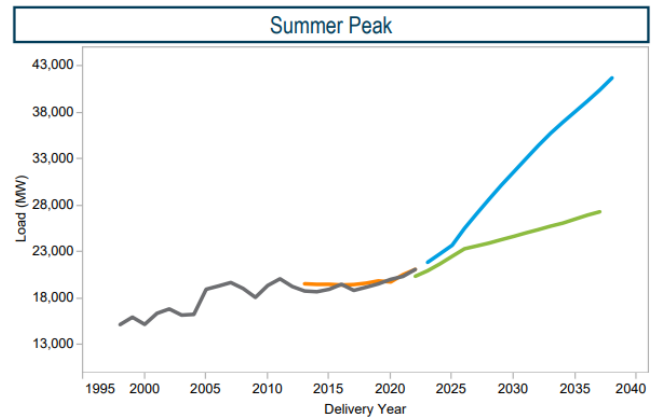


# Data Center Growth is Unsustainable

The explosive growth of the data center industry requires massive public investment in our electric grid and threatens our ability to achieve a clean energy future in Virginia. Northern Virginia has a higher concentration of data centers than anywhere else in the world. And, as of late 2022, data centers accounted for 21% of Dominion Energy’s electricity sales in Virginia. In fact, data centers represent the only growing sector of electricity demand in Virginia, and that demand growth is projected to more than double peak load by 2040. Yet, Virginia localities continue to approve more, and the state is encouraging it.



Projected increase in summer peak from PJM 2023 Dominion Area

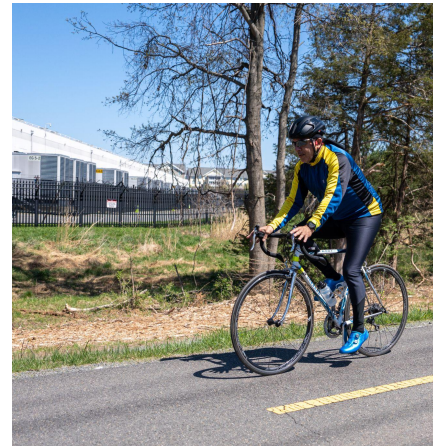
## Virginians are paying for the data center industry to continue to profit

As new data centers are constructed and Dominion builds out the electrical grid to accommodate companies like Amazon Web Services, local residents and communities are left wondering: **who is going to foot the bill and what are the implications for our air quality, climate goals, water resources, health and the environment?**

- **Climate Impact** - The data center industry in Virginia achieved a peak metered load of almost 2.8 GW in 2022 and is expected to grow to 13 GW by 2038. This data center growth is driving Dominion’s plans for expensive grid expansion and continued reliance on fossil-fueled generation. Not only does Virginia fail to meet its climate goals and suffer the continued community impacts of fossil-fuel power, but all ratepayers are going to pay for it through increased rates!
- **Land and Water** - Massive data center buildings, substations, transmission lines, and power generation facilities convert large expanses of land from forest and agriculture, harming wildlife habitat, water quality, and food and fiber production. Additionally, as the electric system becomes more constrained, the data center industry may shift back to more water-intensive cooling, threatening our water supply.
- **Parks and History** - Due to the potential tax revenue that comes from data centers, the state and localities have been willing to approve data center proposals in sensitive locations with little scrutiny. For example, a historic black cemetery in Mecklenburg County was destroyed during the construction of

a Microsoft data center campus and dozens of data centers and substations now line the Washington and Old Dominion Trail (W&OD) in Ashburn and a major transmission line goes through the trail corridor. Data center campuses are also actively under consideration next to the Manassas National Battlefield Park, Prince William Forest Park, and Hog Island Wildlife Management Area.

- Air Quality - Data centers in northern Virginia have quietly put in place thousands of commercial-sized, highly polluting diesel generators for backup power, which we fear are likely to be used more frequently as the grid becomes more constrained. Alarming, there's been no evaluation of the cumulative impact of this on nearby schools, parks, trails, nursing homes, etc. or regional air quality.



*Cyclist on the Washington and Old Dominion Trail (W&OD) through Ashburn*

## Myths about the data center industry:

You may hear...	But the truth is...
Data centers are fueled by renewable energy.	Data center companies do invest in renewable energy, but their industry also uses more electricity than any other, and that demand far outpaces the renewable energy sources being built. As a result, the planned retirements of polluting sources like natural gas power plants have been put on hold. And, the rapid approval of data centers combined with the continued buildout of utility-scale solar to help power them, the amount of land we stand to lose keeps increasing at a frightening rate.
Data center development will be self limiting once they run out of electricity and/or land.	Thousands of acres of land have already been approved by Virginia localities for data center development and more are under consideration. Under our current framework, the utility is obligated to expand our electrical infrastructure to provide service to these sites as they build out. This provides seemingly endless power at no cost to them, because the cost of new transmission lines and power generation falls on ratepayers.
Data centers are getting more energy efficient.	Data centers are more energy efficient than the onsite IT infrastructure they've replaced, but with the convenience and cost savings of using off-site data centers, consumption has increased dramatically. In addition, high-performance computing, such as AI applications, has increased server rack densities significantly which equates to higher power usage per square foot.

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Economic development that results in environmental degradation and leaves Virginians paying the bill is not progress. The state needs to pause approvals, study these issues, and get a handle on this industry before it is too late. Contact Julie Bolthouse to get involved: [jbolthouse@pecva.org](mailto:jbolthouse@pecva.org)

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