

Amazon Blackwell Frequently Asked Questions

How big is Amazon's proposed data center at Blackwell Drive? Will there be more?

- The proposed Amazon Data Center building at Blackwell is 220,000 square feet - about five acres under one roof compared to Warrenton's Walmart, which is only about four acres.
- Two data centers are operating now in Fauquier County - OVH at Vint Hill and AWS/VADANTA at the Warrenton Training Center. Another was already approved for Remington in 2018.
- Amazon's business approach in Northern Virginia has been to build data centers in sets of three or more. Warrenton officials have indicated they expect other data centers within "a few years".
- Dominion Energy's proposed 230 kV line would be capable of powering 20 data centers of similar size to the proposed Amazon Blackwell Data Center.
- Changes to the town ordinance reduced the minimum lot size for data centers to 20 acres and several other lots in Warrenton are now being advertised as data center development opportunities.

Why are there so many data centers in Northern Virginia?

- During the 1970s and 1980s, the federal government installed dense fiber optic cable around Dulles Airport, providing ready and fast access to the internet, making surrounding locations prime for data centers.
- Nearly \$1B in Virginia state property tax breaks have been offered in the last decade – \$124.5M in 2021 alone – to encourage corporates like Google, Amazon, Microsoft and others to build data centers.
- Electricity represents 60-70% of a data center's total operating cost; Dominion Energy has consistently offered some of the cheapest industrial electricity on the east coast.

Why does Amazon want to come to Warrenton and Fauquier County?

- Northern Virginia lacks large tracts of land, pushing data centers to more rural areas.
- There are growing restrictions on Dominion's ability to provide cheap electricity in Loudoun and PWC.
- Access to fiber optics is reasonable, given the federal facilities in the Warrenton area
- Amazon assumes Warrenton and Fauquier County will provide additional tax subsidies

How many and what kind of jobs will be created by Amazon Data Centers?

- After construction, Amazon will employ just 50 people across three shifts to qualify for the Virginia State data center tax rebates.
- According to Glassdoor, an Amazon data center technician in Manassas earns \$56,035 annually, while a public school teacher in Manassas earns \$87,538.
- The lack of affordable housing in Warrenton means most employees will live outside of the area.

What are the impacts of data centers on local taxes?

- The impact of data center taxes is unclear, and town and county governments have not publicly disclosed tax revenue expectations or what incentives may be offered.
- After nearly 20 years of explosive data center growth in Loudoun County, property taxes are still 30% higher in Loudoun than in Warrenton and Fauquier.
- Virginia's incentive program for data centers allows for a 100% exemption of equipment sales with an accelerated depreciation schedule which shortens local tax benefits.
- Federal government-owned or leased data centers may be exempted from some property taxes, which can negatively impact tax benefits to Warrenton or Fauquier.
- The real cost of data centers in terms of infrastructure and services are highly discounted and there is evidence that additional tax revenues are rarely used for the purposes intended or stated.

What are the opportunity costs of data centers?

- The opportunity costs and impacts on jobs, affordable housing, service industries, and long-term consequences of converting the Blackwell site to a data center have not been calculated.
- The Warrenton 2040 Comprehensive Plan included this 40-acre property in the "New Town Character District," which was designated for commercial office space, retail, and affordable housing.
- Any new Dominion power infrastructure associated with the Blackwell site will be paid for by all ratepayers meaning that we will all share the cost of installing new power lines.

How much electricity do data centers consume? Where does it come from? Is it "green" power?

- Amazon and Dominion have refused to provide information on power, but we estimate that Dominion's proposed overhead solution is enough to power 15 to 20 data centers.
- According to the Energy Information Agency, only 5.1% of Virginia's power is renewable, so the Amazon Blackwell power will primarily come from fossil fuel-fired power plants.
- It is estimated that the proposed Amazon data center at Blackwell Road will consume approximately 40 MW of power on a 24/7 basis (roughly 345,600,000 kWh per year) from Dominion's grid. According to USEPA's [Greenhouse Gas Equivalency Calculator](#), the GHGs associated with generating this power at Dominion's facilities will be in the order of 149,051 tons of CO₂ per year. This is roughly equivalent to all current GHG emissions stemming from residential electrical demand in Fauquier County.

Do Data Centers produce air pollution? What kind and how to avoid or minimize it?

- Air pollution from data centers comes from two sources: pollution associated with off-site electricity generation (coal or natural gas) or air pollution from the 28-emergency stand-by (UPS) generators located at Blackwell round.
- Although only used intermittently, diesel generators release greenhouse gases, particulate matter (PM), volatile organic compounds (VOCs), nitrous oxides (NO_x), and sulfur dioxide (SO₂), harmful pollutants that create smog and exacerbate respiratory conditions.

Do Data Centers consume water for cooling? How much?

- On September 9, Amazon confirmed it would use 500-ton air-cooled chillers which recycle water and coolant and require limited water for sanitation. However, as data centers rapidly "densify" computing and storage operations, liquid cooling will be eventually required boosting water consumption.
- Amazon has stated that they would require only 1,500 gallons/day (about four average households worth), but irrigation requirements for the extensive landscaping identified on site plans has not yet been included.
- Fauquier County Water standard tables estimate water use on an area basis thus, Amazon will have five acres under the roof yielding 7,500 gallons/day (the equivalent of 19 homes) just for sanitation water.

How noisy are data centers? What can be done to reduce noise?

- The forced air chillers, pumps, tanks and accessories are all located on the roof and are the principal source of both audible noise and subsonic vibration.
- 28 large stand-by generators located outside of the building will be used in emergencies and tested intermittently. Generator noise can exceed 100 decibels – a jet flying at 1,000 feet overhead.
- Data centers create an inescapable low-frequency humming or vibration that travels long distances and penetrates windows and walls with noise that often exceeds local regulations.
- Many studies have shown direct links between noise and vibration and health impacts on stress-related illnesses including high blood pressure, sleep disruption, anxiety, and attention deficit.
- Amazon's original noise study provided to the TOW in September was incomplete, flawed, and identified several locations where noise would exceed town and county legal standards.
- Independent studies have now confirmed that noise will routinely exceed the Town of Warrenton standards at most locations measured during the day and night.

What is the status of the Special Use Permit application?

- After six months and three submissions, the application remains in a developing state. Amazon refuses to provide essential information on its mechanical equipment, building plans, utility demands, load request, and the adjacent electrical substation, among other things.
- Of the two studies that were provided, on noise and soil, both require independent technical review, as the methodology used and conclusions reached on noise are significantly flawed, and important findings such as potential blasting during construction have not been elaborated upon.
- The balloon test for visual impacts has been openly criticized by the Planning Commission. Thus far, no consultation or communication between Amazon and the affected communities has occurred.
- At least one public hearing before the planning commission and town council is required before a decision may be made. Although town council has promised multiple hearings and opportunities for public input, that remains to be seen, and a decision could be made as early as December 2022.