

DATA CENTER FACT SHEET

Loudoun County is home to one of the largest concentrations of data centers in the world through which much of the world's internet traffic passes every day. The rapid development of the data center industry in Loudoun County has resulted in economic benefits and concerns among residents about the impact of data centers on the surrounding community. Over the past three decades, the county and community have learned valuable lessons about data center development as Loudoun County's data center story continues to evolve.

BY THE NUMBERS

As of March 1, 2026

233



DATA CENTERS BUILT & UNDER CONSTRUCTION

17,000



NUMBER OF JOBS GENERATED

\$1.3B



FY27 PROJECTED LOCAL TAX REVENUE

\$0.34



REAL PROPERTY TAX RATE LOWERED SINCE 2016

DATA CENTERS IN LOUDOUN COUNTY TIMELINE

- 1990s** ● America Online and UUNet each locate their headquarters in Ashburn as the Metropolitan Area Exchange East (MAE East), brings miles of fiber infrastructure to Loudoun County.
- 2000** ● Loudoun County's zoning administrator classifies data centers as similar to offices from a zoning perspective and determines they can be built by-right in any area where office buildings are allowed.
- 2008** ● In response to the crash of the housing market and the resulting loss of real estate tax revenue, Loudoun County works to diversify its tax base by focusing its economic development strategy on technology infrastructure.
- 2016** ● Loudoun County becomes home to the largest concentration of data centers in the world.
- 2023** ● Through the process to adopt a new zoning ordinance, Loudoun County strengthens design requirements applying to new data center development, and identifies data centers as an item for additional consideration through further amendments to the Zoning Ordinance and Comprehensive Plan.
- 2024** ● The Board of Supervisors initiates a two-phase project to update policies and standards for data center and electrical substation uses.
- 2025** ● In Phase 1 of the project, the Board of Supervisors ends by-right development of most data centers, meaning that future proposed data centers must go through a legislative review process including public input. A grandfathering resolution allows certain pending applications to continue through the by-right process.
- 2026** ● Phase 2 of the project is underway, focusing on establishing new potential policy guidance and new use-specific zoning standards for data centers and utility substations. The FY 2027 adopted budget projects data center revenue at \$1.3 billion, representing 40% of the total budget.

TOP CONSIDERATIONS FOR DATA CENTER DEVELOPMENT

At the outset, it was difficult for Loudoun County to foresee what the data center industry would become, how infrastructure would evolve and how it would impact residents over time. As data center density has increased, residents raised concerns about a wide variety of impacts. Here are the top 10 lessons learned:

- 1 Siting:** Carefully consider where you want to permit data center development, and whether data center development should be permitted by right or as a conditional approval.
- 2 Energy:** Planning appropriately for the energy needs of data centers is as important as planning for the siting, design, and operation of the data centers themselves.
- 3 Electrical Infrastructure:** If there is not adequate electrical infrastructure to support data centers, new high-voltage transmission lines and towers, along with distribution substations, may need to be constructed.
- 4 Water:** Local water systems are cyclical and managed with precision. Any new data center connecting to municipal water supplies or wastewater systems should be evaluated for its potential impact on the overall water cycle, in both the near- and long-term.
- 5 Noise:** Data centers can produce noticeable noise from a variety of sources. When considering proposed data center projects, take adjacent land uses into account and work with the data center companies and the community to mitigate noise concerns as early as possible.
- 6 Land Values:** Data centers are big businesses, and their presence can have an impact on the value of land. Be mindful of the potential for data centers to make land unaffordable to other commercial or residential developers.
- 7 Design Standards:** Data center buildings are large, industrial facilities that can dominate viewsheds. Communities should plan either for appropriate buffering, screening, and setbacks, or should work with data center developers to ensure the buildings match the aesthetic of the surrounding buildings.
- 8 Secure Facilities:** Data centers are secure facilities, therefore county officials need to make arrangements with data center staff in advance for routine access for inspections and for public safety response.
- 9 Fire Response:** Data centers often use fire suppression systems that are not reliant on water-based solutions, due to the sensitivity of the equipment within. Local first responders will need specialized education, training, and equipment to respond to an emergency in this environment.
- 10 Tax Revenue:** Use data center revenue strategically to support capital improvement projects and one-time expenditures, rather than ongoing or recurring expenses, to avoid becoming reliant on a revenue stream that may change over time.

MORE INFORMATION

Additional information about data centers in Loudoun County and how the county continues its work to better define the standards, policies, and regulations that will shape the future of data center development in Loudoun County can be found at loudoun.gov/DataCenters.

