

Mike Turner White paper excerpt:

How We Got Here: A Timeline of the Growth of the Loudoun County Data Center Sector

The following is a timeline of key events shaping the proliferation of data centers in Loudoun County:

- **1993:** Update of 1972 Zoning Ordinance: No mention of data centers.
- **1990s (latter half):** Metropolitan Area Exchange-East established in Loudoun County; AOL HQ comes to Ashburn in 1997 and expands on existing fiber optic network.
- **2000:** Loudoun County Zoning Administrator determination; data centers are viewed as similar to office buildings in the 1993 Zoning Ordinance. Office parks are a hot trend.
- **2001:** General Plan (land use) updated.
- **2003:** Revised 1993 Zoning Ordinance passed to match the 2001 General Plan: First Mention of Data Centers in the Zoning Ordinance.
- **2008:** Loudoun County Economic Development initiates marketing strategy to actively recruit data centers to build on land specifically permitting data centers.
- **2014:** Zoning Ordinance Amendment (ZOAM) addressing data center sight, setback, sound.
- **2019:** General Plan updated (land use).
- **2022:** May-July: The Loudoun County Transportation and Land Use Committee (TLUC) holds a series of three meetings to inventory current and potential locations of data centers, obtain staff recommendations about how best to manage data center growth, and to determine the best process to implement a future data center Comprehensive Plan Amendment (CPAM)/Zoning Ordinance Amendment (ZOAM) to codify those managerial changes. Dominion announces new 500/230 Kv Wishing Star-Mars transmission line.

Mike Turner White paper excerpt (cont.):

- **2022:** July: After ten years of slightly declining power demand within the Dominion Energy service area, PJM, the northeast Regional Transmission Organization, of which Dominion Energy is a member, recognizes an impending exponential increase in power demand from Loudoun County's "Data Center Alley." ○ Dominion Energy immediately imposes power constraints on "Data Center Alley" (which ended in December 2025). In September 2022, Dominion Energy announces plans to construct a "reliability" loop of three 500Kv/230Kv transmission lines (Aspen/Golden/Mars/Wishing Star) to connect "Data Center Alley" to the main north/south power line bringing power into Loudoun County. Dominion Energy informs "Data Center Alley" it will have less power available for at least five years. The power "constrained area" is created until new power lines can be built by 2027.^{16 17} PJM announces a new 500 Kv line from Doubs-Aspen.¹⁸
- ChatGPT is launched. Artificial Intelligence, with its exponentially higher demand for power, enters the commercial market.
- Coming out of COVID, the world demand for digital products increases exponentially
- **2023:** Dominion Energy announces a new 500/230Kv transmission line along Route 7 in Loudoun County.¹⁹ This line, the southern Wishing Star-Mars line and a third Golden-Mars line will be connected to form a loop to "Data Center Alley."
- **2023:** Dec: Zoning Ordinance Rewrite (ZOR) to align with the 2019 Comprehensive Plan is approved by the BOS. This zoning ordinance rewrite established new, more restrictive construction and performance standards for data centers and attached Special Exceptions (SPEX) to data centers being built on Research and Development Park or Office Park land.

Mike Turner White paper excerpt (cont.):

- **2023:** Dec: PJM announces acceptance of a NextEra proposal to build a new 500Kv transmission line through western Loudoun County.²⁰ Public resistance is significant, and PJM later decides to build this line in existing right-of-way.
- **2024:** Mar: The Loudoun County Board of Supervisors denies the construction of a 4.9 million sq. ft./600 Mw data center next to a residential neighborhood but approves the application when the applicant reduces its size to 1.3 million sq. ft., the “by right” permitted size, and retains the environmental proffers from the larger application.
- **2025:** Mar: The Loudoun County Board of Supervisors ends “by right” data center development in Loudoun County by a 7-2 vote at a March 18, 2025 Board meeting.²¹

It’s important to note here the strategy initiated in 2008 by the Loudoun County Economic Development Department had the full support of the Loudoun County Board of Supervisors and proved to be enormously successful.

- There has not been a single day in the past 16 years when a data center was not under some type of initial construction or expansion in Loudoun County.
- Loudoun County now has about 250 data centers, more than any other community on Earth.²² An additional 117 data centers are in the development pipeline.³

Excerpt From (Pages 12-14):

Loudoun County, Virginia: Data Center Capital of the World
“A Strategy for a Changing Paradigm”

By Vice Chair/ Ashburn Supervisor, Mike Turner Loudoun County, VA Board of Supervisors July 1, 2026 (Original Edition: July 1, 2024)