Power Surge

How AI-driven demand for new data centers is placing new pressure on local infrastructure and public finance—and what local governments can do about it

BY JARRON BRADY

Artificial intelligence (AI) has rapidly become the centerpiece of global innovation, and its expansion depends heavily on the physical infrastructure that enables it—data centers. As major technology companies scale their AI capabilities, demand for data centers has surged, creating an urgent need for new facilities across the country. Without significant data center expansion, the projected growth in AI over the next decade simply cannot be sustained.

This surge has placed new pressure on local governments and finance professionals, who must balance tax incentives, community engagement, and long-term capital planning, particularly around power and water use, to accommodate this industry. Approaches vary widely, as local context dictates what is feasible. This article provides a foundation for understanding the issue by explaining what data centers are, outlining projected growth, highlighting key considerations for local governments, and offering a brief snapshot of pending state and federal legislation shaping data center development.

Considering demand and cost

Data centers are physical rooms, buildings, or facilities housing a large number of networking equipment and servers that can rapidly store and process a high volume of information, such as code, images, text, and other data. There are three main types of data centers:

- The best-understood data centers are for generative AI, which deploys graphics processing units that can handle an enormous amount of information, whether it is via text, graphics, or numbers. At its core is the rapid machine learning taking place.
- Less common, but experiencing rapid growth, are "high-security data centers" that are largely useful for military and intelligence gathering (e.g., defense applications, information on foreign adversaries).
- The last type of major data centers are "edge centers," which must be placed near the functions they support. For example, if your jurisdiction has a high volume of autonomous vehicles, they need to be in relative proximity to the centers and robots to process information quickly.[1]

In 2023, the generative AI market alone was valued at $44 billion, and that number is expected to reach $1 trillion by 2032. To meet this growing demand, more "hyperscale" data centers will be proposed for construction, housing more than 5,000 file servers used by multiple organizations simultaneously.[2] Economic developers, finance professionals, and elected officials are at the forefront of this expansion because their analysis, input, and approval are essential to getting these centers constructed and online as quickly as possible. Local governments are already facing a high volume of proposals, which will only grow in frequency and complexity.

The Skybox Austin data center, under construction in Hutto, Texas, illustrates the rapid expansion of AI infrastructure.

Many major factors must be considered in a government's decision on whether to approve a data center. The first and arguably the most controversial is energy consumption, namely water and electricity. According to the Lawrence Berkeley National Laboratory, a typical, mid-sized data center uses roughly 300,000 gallons of water daily.[3] A hyperscale data center uses an estimated 5 million gallons of water each day for its advanced cooling systems—equivalent to the water needs of a town of up to 50,000 people. The amount of freshwater needed is influenced by the type of cooling system and whether the center relies on other types of energy sources, such as onsite solar installations.

According to the U.S. Environmental Protection Agency (EPA), the nationwide cost of upgrading and maintaining wastewater and drinking water infrastructure is more than $744 billion over the next two decades.[4] While advances in energy efficiency and innovative water cooling systems are likely in the near future, local governments must carefully consider who will be responsible for financing these upgrades. Large influxes of federal dollars are unlikely to arrive soon after the significant investment provided by the Infrastructure Investment and Jobs Act.

The most recent economic surge of AI has mostly occurred in the past few years, but as of 2018, the Lawrence Berkeley National Laboratory found that data centers consumed 76 TWh (terra-watt per 1 hour), representing 1.9 percent of total annual electricity consumption in the United States.[5] By 2023, that figure more than doubled, to 176 TWh, representing 4.4 percent of total U.S. electricity consumption. Based on data up to 2023, this report projects that data centers will use anywhere from 6.7 to 12 percent of total U.S. electricity consumption by 2028.

Even with relatively modest electricity consumption growth compared to market growth, local governments must face the reality that consumers are very sensitive to even the perception that their electricity bills will go up because of data centers. Without due diligence to determine power capabilities and necessary system upgrades, local governments run the risk of local pushback and overwhelming their power grids during periods of high consumption for everyone.

Data centers like Google's facility in the city of The Dalles, Oregon, depend on substantial energy, water, and physical infrastructure. Such demands are expected to grow as AI computing expands.

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Local and state government finance professionals must also determine when to use available tax incentives to support data center construction and growth. What began as a steady flow of local proposals has evolved into a national conversation about the role governments should play—whether actively facilitating new development or taking a more passive approach. At least 36 states currently authorize tax incentives for data center projects. States experiencing the fastest construction have primarily relied on sales and use tax exemptions for equipment. However, these policies differ significantly in several key respects: the type of exemption, the duration of eligibility (typically 10 to 50 years), the facilities that qualify (based on size or parcel requirements), and the required investment thresholds.[6]

An aerial view of a data center being constructed inside "Data Center Alley" in the community of Ashburn, Virginia, located in Loudoun County.

The Commonwealth of Virginia offers one of the most notable examples. Virginia, which has long maintained robust incentives, exempted data centers from sales and use taxes in FY 2025, resulting in $1.6 billion in foregone state revenue—an amount that does not include additional local tax abatements.[7] A report commissioned by local, regional, and business stakeholders in 2024 found that in 2022, Virginia data centers paid $640 million in taxes.[8] In Loudoun County, more than 30 million square feet of data centers have been built in the last 15 years, adding to a technological ecosystem that prioritizes clean energy companies working hand in hand with regional economic development offices, data center companies, the county, and local universities to create mutual benefit. While the full economic impact on host jurisdictions varies depending on the metrics used, local governments must consider the benefits they aim to achieve and the specific tools they intend to rely on when evaluating proposals for new data center development.

Making deals

Until recently, data center deals were often negotiated quickly, with addendums outlining community benefits typically added only after objections were raised. Now, however, the need for rapid expansion and increased public attention has given communities and local leaders greater leverage in these negotiations. Recent research by the Brookings Institution argues that communities have a lot of value to offer data centers, including local construction workers, education ecosystems, infrastructure, land, and energy capacity.[9]

Deals can be approached in a way that ensures "shared prosperity," as opposed to narrower community benefits. Some states are leaning into rapid expansion to create greater regional economic benefit by investing in local technology startups, enhancing regional technology capabilities through research and development, accelerating energy efficiency, or supporting local academic work through shared computing resources.

With certain states and regions benefiting more than others, there is a nationwide wave of data center pushback and proposed regulations, elevating and intensifying the topic as the economy is being reshaped. Senators Josh Hawley and Richard Blumenthal have introduced a bipartisan bill—the GRID Act (Guaranteeing Rate Insulation from Data Centers)—which addresses the controversy over who should bear the costs of increased energy consumption. While the bill isn't likely to reach the Senate floor for a vote, it has spurred further conversations and inspired some state legislators and local officials.

State-wide data center moratorium bills have been introduced in at least 11 states in 2026.[10] The broader debate and even the legislative sponsors do not fit neatly along partisan lines, which complicates the issue. Even with mostly stalled legislation at the state level, dozens of municipalities have paused new projects to account for local concerns.

Conclusion

Elected officials and other public administrators need to be equipped to respond to the rapidly increasing demand for data center construction—understanding what is being offered, accurately assessing local and regional capacity, approaching incentives with creativity, and clearly communicating the shared economic benefits to residents. We are in the age of the data center gold rush, and long-term capital planning will have to change in real time to ensure that communities will prosper. Without more thoughtful planning, it is reasonable to expect communities to be hesitant or to outright hinder this growth.

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[1] Nicol Turner Lee and Darrell M. West, "The Future of Data Centers." Brookings Institution, November 5, 2025.

[2] Turner Lee and West.

[3] Arman Shehabi et al., "2024 United States Data Center Energy Usage Report." Lawrence Berkeley National Laboratory, 2024.

[4] Elena H. Humphreys and Jonathan L. Ramseur, "Infrastructure Investment and Jobs Act (IIJA): Drinking Water and Wastewater Infrastructure." Congressional Research Service, January 4, 2022.

[5] Shehabi.

[6] Jake Remington and Rod Carter, "*An Overview of State Data Center-related Tax Incentives*," *NAIOP Development Magazine*, Winter 2024/2025.

[7] "2025 Annual Comprehensive Financial Report." Virginia Department of Accounts.

[8] Ibid.

[9] Daniel Goetzel, Mark Muro, and Shriya Methkupally, "Turning the Data Center Boom into Long-Term, Local Prosperity." Brookings Institution, February 5, 2026.

[10] Morgan Scarboro and Billy Culleton, "Local Data Center Regulations Gain Ground as State Bills Falter." MultiState, March 13, 2026.