# UNDERSTANDING DATA CENTER DEVELOPMENTS AND PROPOSALS

*A Community-Informed Overview for Decision-Makers in Pottawatomie County and the Greater Manhattan Area*

EcoDevo
Prosperity Through Partnerships

## KEY DETAILS

*While data centers are now widely discussed among development professionals, policymakers, and community members, a great deal of uncertainty still exists. This overview is designed to help local leaders navigate conversations around data center development, and what conditions are needed to align with regional priorities.*

Data centers are specialized physical facilities designed to store, process, and transmit digital information at massive scale. They enable everything from cloud computing and artificial intelligence to financial systems, healthcare records, logistics networks, and government operations. A useful way to understand data centers is to compare them to other forms of infrastructure. Similar to highways, rail systems, or power plants, they enable broader economic activity, rather than directly producing consumer goods.

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|---|---|
|  | **What's in a Data Center?** At a basic level, a data center consists of server racks (computing hardware), networking equipment, power supply systems, and cooling infrastructure, all operating in a highly controlled environment. These systems are what's really behind cloud storage, and many technologies we leverage daily. |
|  | **Who Operates Data Centers?** There are both hyperscale providers who construct their own data centers (e.g., Google, Apple, Microsoft, Amazon), and colocation operators who rent space to others (e.g., QTS, Vantage). Some of the hyperscale providers also utilize colocation. |
|  | **Who Uses Data Centers?** Almost everyone. Data centers don't only support emerging technologies like AI; they also support essential and common tech for both personal and business use, like email services, mobile apps, streaming services, and even credit card payment systems. When a business uses a cloud platform, a hospital accesses patient data, or a consumer streams video, those interactions are supported by servers housed in data centers. |
|  | **What Resources Do Data Centers Use?** Large, continuous parcels of land and fiber connectivity are needed for these facilities, although electricity is the defining input for a data center. Although the volume is site/design specific, water may be needed to support cooling systems for some data centers. Cool/moderate climates are typically preferred. |

## NOTES

*There are three key types of data centers, although hyperscale facilities are the largest and fastest-growing:*

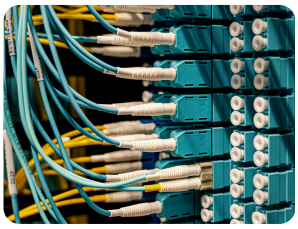
| Enterprise Data Centers | Colocation Facilities | Hyperscale Facilities |
|---|---|---|
| Owned and operated by a single organization to support its internal operations. | Shared infrastructure facilities where multiple customers lease space for their servers. | Massive campuses operated by major tech companies to support cloud computing and AI workloads at global scale. |

# DATA CENTER PROJECT NEEDS AND SITE SELECTION

*Data center developers evaluate locations through a relatively consistent lens, prioritizing infrastructure readiness, long-term scalability, and risk reduction. While global in scope, this site selection process often narrows quickly to regions that can demonstrate a credible ability to deliver power, connectivity, land, and coordinated governance.*

*While the following needs are key for identifying preferred locations for data center development, the impact of regional collaboration should not be underestimated. Additionally, data center sites are sometimes intentionally clustered in areas where key infrastructure already exists, particularly power and fiber:*

Reliable, large-scale **electricity is the single most important factor in data center site selection**. Hyperscale facilities require significant power, and the confidence that it can be delivered consistently over time and expanded as demand grows.



While electricity powers a data center, fiber connectivity gives it purpose. **Data centers must connect to high-speed, high-capacity fiber networks** to move data efficiently between users, cloud platforms, and other facilities.

**Hyperscale data centers require large, contiguous parcels of land**, often ranging from 50 to several hundred acres for a single campus. These sites must also meet specific criteria related to topography, access, zoning, and proximity to infrastructure.


**Climate plays a supporting, but meaningful, role in data center efficiency**. Cooler and less humid environments can reduce the energy required for cooling, particularly for air-cooled systems.

Water use in data centers is one of the most widely discussed and often misunderstood aspects of their operation. Water consumption at modern facilities actually varies dramatically depending on the cooling technology employed. Data centers can utilize air-cooled systems, closed-loop liquid cooling systems, or evaporative cooling systems, depending on specifics of a site/facility; a negative water impact is not inherent to modern data centers.

# BENEFITS AND RISKS FOR THE ELECTRICAL GRID

*On a broad level, data centers introduce both opportunities and risks for the electrical grid:*

| + | - |
|---|---|
| Predictable load profiles help utilities plan generation and transmission more efficiently compared to highly variable residential demand | Concentration of multiple large facilities in a single area can strain transmission infrastructure if not coordinated |
| Integration with battery storage and uninterruptible power systems (UPS) allows some facilities to participate in demand response or grid stabilization programs | Simultaneous disconnection events, where multiple data centers drop load during disturbances, can create grid instability if systems are not designed with “fault ride-through” capability |
| Emerging initiatives from companies like Google and Microsoft are exploring “flexible load” strategies, where computing workloads can be shifted to reduce strain during peak demand periods | Infrastructure buildout timelines may lag behind development interest, creating bottlenecks |

## ECONOMIC AND FISCAL IMPACTS OF DATA CENTER DEVELOPMENT

*Data centers are among the most capital-intensive forms of economic development, which presents an opportunity for communities to attract new investment. That said, the investment impact should be weighted against the resource demands and specifics of any given project, as with any other large-scale industrial development.*

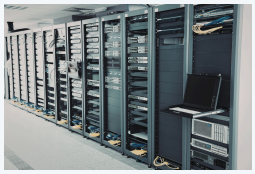
**A single hyperscale facility can represent an investment ranging from several hundred million dollars to well over a billion, with multi-phase campuses reaching even higher totals over time.**

This investment is distributed across several major components:

- Physical structures, including data halls, administrative space, and on-site substations
- High-value IT equipment such as servers, storage systems, and networking hardware
- Cooling infrastructure, increasingly specialized for high-density computing
- Electrical systems, including backup generation, battery storage, and switchgear

A substantial portion of data centers' value lies in personal property, particularly servers and equipment, that are replaced on relatively short cycles. In jurisdictions where tax policy captures both real property and personal property, this creates the potential for a durable and growing tax base.

*Indirect areas of positive impact for data centers can include fiber and digital infrastructure expansion, technology sector growth, cybersecurity and defense alignment, research and innovation partnerships, and supply chain and supporting industry growth.*



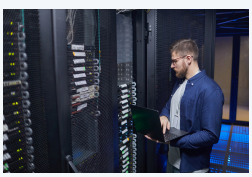
## DATA CENTERS AND WORKFORCE DEVELOPMENT

*While direct employment numbers are limited at data centers, the quality and alignment of those jobs can be meaningful if intentionally connected to regional workforce assets. Additionally, indirect/induced employment can be encouraged by data centers under the right conditions.*

During construction, data center projects can generate significant workforce demand. Large facilities can support hundreds to over a thousand construction jobs over a multi-year buildout. Once operational, however, data centers require relatively small permanent staff.

A typical hyperscale facility might employ 30-150 full-time workers, mostly within:

**IT systems management** | **Network operations** | **Physical security** | **Facility maintenance and engineering**



*Indirect/induced job fields that may grow as a partial result of data center projects include: Telecommunications and fiber installation, electrical and mechanical maintenance service, equipment suppliers and specialized contractors, and security and facility support services.*

# FEDERAL, STATE, AND LOCAL POLICY AND REGULATION

*As demand and proposals for data centers soar, policymakers have been working at all levels to match the rapid market growth and changes. For communities in the Greater Manhattan region, these overlapping federal, state, utility, and local policy frameworks are not merely background considerations. Together, they shape project feasibility, infrastructure requirements, negotiation dynamics, and long-term fiscal outcomes.*

## Key Federal Policy Updates

- A July 2025 executive order directed federal agencies to streamline permitting and environmental review processes for large-scale AI infrastructure projects, including associated energy and transmission facilities.
- The One Big Beautiful Bill Act revised several federal clean energy incentive programs. Most notably, the legislation shortened timelines for certain renewable energy tax credits tied to wind, solar, and related infrastructure projects. These accelerated timelines increase pressure around power generation planning, transmission expansion, and infrastructure delivery schedules.
- Additional federal regulations tied to "Foreign Entities of Concern" requirements may affect energy procurement and infrastructure development strategies.

## Federal Policy Overview

Federal policy is increasingly shaping the economics, timelines, and infrastructure strategies associated with large-scale data center development nationwide, especially as policymakers have increasingly identified AI infrastructure and data center capacity as matters of national economic and strategic importance. As AI-related demand for computing power accelerates, federal policymakers have placed growing emphasis on energy infrastructure, domestic supply chains, and faster project delivery timelines.

## Key Kansas State Policy Updates

- The Kansas Corporation Commission has established the Large Load Power Service (LLPS) tariff framework for customers with expected demand of 75 MW or greater (typically hyperscale data centers, AI compute facilities, and other large industrial loads). The LLPS structure is designed to ensure that large-load customers are financially self-sufficient and do not shift infrastructure costs onto other customers.
- Kansas Senate Bill 98 (2025) further formalizes the state's approach to data center development by establishing both incentives and constraints. Rather than treating data centers like traditional manufacturing or logistics projects, SB 98 recognizes them as a distinct category of infrastructure-intensive investment requiring tailored policy treatment. Key provisions of this bill include:
    - A prohibition on discounted electricity rates
    - Sales tax exemption for construction materials and equipment used for qualified investments
    - Enhanced review and coordination requirements around infrastructure, safety/security, and broader state economic and energy policy

## Kansas Policy Overview

Kansas has developed one of the more structured and clearly defined regulatory approaches in the United States for large-load electricity customers, including hyperscale data centers. The framework reflects a deliberate policy goal: encouraging economic development while minimizing cost shifting to residential and small commercial ratepayers. In practice, Kansas treats data centers less like traditional economic development projects and more like infrastructure-scale utility customers with long-term implications for the electric grid, transmission system, and local infrastructure.

### Local Authority is Where Outcomes are Ultimately Determined

Despite the structured federal, state, and utility framework, the most consequential decisions for any potential data center development still occur at the local and regional level. In Kansas, local governments retain significant authority over how and where development occurs, particularly through land-use and fiscal policy tools.

**Key areas of local control around data center development include:**

- **Zoning and Land Use Regulation**
- **Development Agreements and Site-Specific Conditions**
- **Infrastructure Coordination**
- **Property Tax Policy and Incentives**


## CONSIDERATIONS FOR THE GREATER MANHATTAN AREA

Based on the area's strong fiber connection, established track record of regional collaboration, solid foundational infrastructure (like the Jeffrey Energy Center and Evergy's service systems), and footprint, it's no surprise that Pottawatomie County and the Greater Manhattan region are now part of the conversation around data center development. However, the path forward is yet to be determined. Because the important decisions for these developments still occur locally, **communities in the Greater Manhattan region retain significant authority over whether, where, and how data centers are integrated into the landscape.**

As a recap, here are a few of the major pros and cons to consider with data center development in general (although project specifics should always be carefully examined):

| Data Center Development Opportunity Areas | Data Center Development Concern Areas |
|---|---|
| • Job growth (short and long-term)<br>• Significant short-term economic impacts during construction<br>• Increases in property values, tax revenues, and even franchise fees possible<br>• Potential to build local/regional technology presence and attract related businesses<br>• Data centers may be an opportunity for collaboration on tech advancements and innovation | • General demands on infrastructure and utilities (exact needs dependent on project specifics)<br>• Potential for improper uses of land (e.g., farming and ag)<br>• Potential for data centers to impact community member satisfaction due to industrial nature<br>• Negative impacts of AI and similar technology supported by data centers still largely undetermined |

Want to learn more about data centers? View our complete **Data Center Reference Guide** on our website!

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