DATA CENTERS

101

A Primer for State & Local Government Officials

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What We'll Cover Today

01 **What is a Data Center?**
Plain-language definition and physical reality

02 **Why This Matters Now**
The forces driving explosive growth

03 **Industry Scale & Trajectory**
Numbers every official should know

04 **What Data Centers Need to Operate**
Power, land, water, and connectivity

05 **Types of Data Centers**
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06 **Economic Footprint**
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07 **Demands on a Community**
Grid, water, zoning, and infrastructure

08 **Questions Officials Should Ask**
A practical toolkit

01 | What Is a Data Center?

A Large Building That Powers Our Digital World

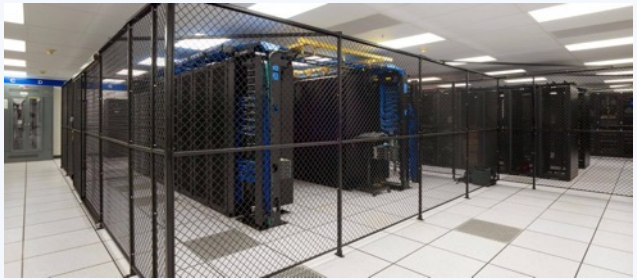
A data center is a specialized facility housing thousands of computer servers that store, process, and transmit digital information.

Think of it as the physical backbone of the internet — the place where emails, banking records, streaming video, and government services actually live.

When you use almost any digital service — from filing taxes online to watching a video — your request travels to a data center somewhere.

Key Characteristics

- Heavily secured — 24/7 physical and cyber protection
- Cooled continuously — servers generate enormous heat
- Connected via high-speed fiber optic cables
- Powered with redundant electricity systems



02 | Why This Matters Now

Three forces are driving demand for data centers:

Cloud Computing

Businesses of every size have moved data and software off on-site servers and into the cloud. Every cloud service, from email to payroll, runs inside a data center.

Artificial Intelligence

Training AI models requires massive computing power. The AI boom has triggered an enormous wave of data center construction as tech companies race to build capacity.

Digital Transformation

Remote work, video streaming, smart devices, and e-government services have dramatically increased the volume of data that must be stored, processed, and transmitted.

The result: data center construction is one of the largest infrastructure investment categories in the U.S. today.

03 | U.S. Industry Scale & Trajectory

$425B+

U.S. data center spending in 2025 (all sources)

Construction starts alone hit $53.7B through Nov. 2025

~5,400

Data centers currently operating in the U.S.

More than 10× any other country; number rising fast

61.8 GW

U.S. data center power demand in 2025

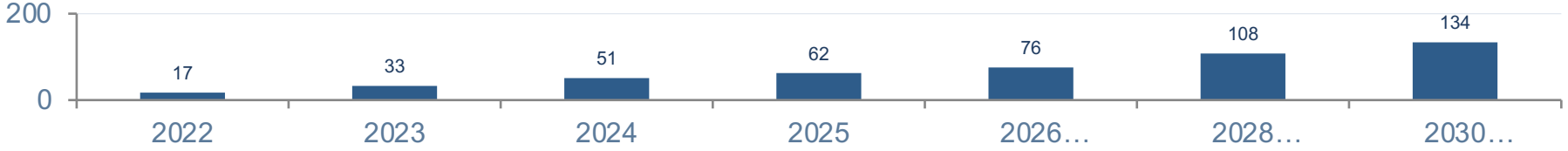
Projected to reach 134 GW by 2030 — more than double

$597M

Average cost of a new U.S. data center (2025)

17 near-term megaprojects valued over $1B each

U.S. Data Center Power Demand (Gigawatts) — Source: 451 Research / S&P Global, Oct. 2025



Sources: Programs.com / Gartner (investment); Cloudscene / Cargoson, Nov. 2025 (facility count); 451 Research / S&P Global, Oct. 2025 (power demand GW); ConstructConnect, Jan. 2026 (average facility cost).

03 | Michigan Industry Scale & Trajectory

Statewide Numbers Michigan Officials Should Know (2024–2026)

$30B+

Total announced investment across 34+ known projects

Stargate $16B · Switch $5B · UM/LANL $1.3B Metrobloks $1.5B · Thor $1B

16 GW

Total capacity in utility development pipelines

DTE: up to 8.4 GW target Consumers Energy: 15 GW pipeline

4,000+

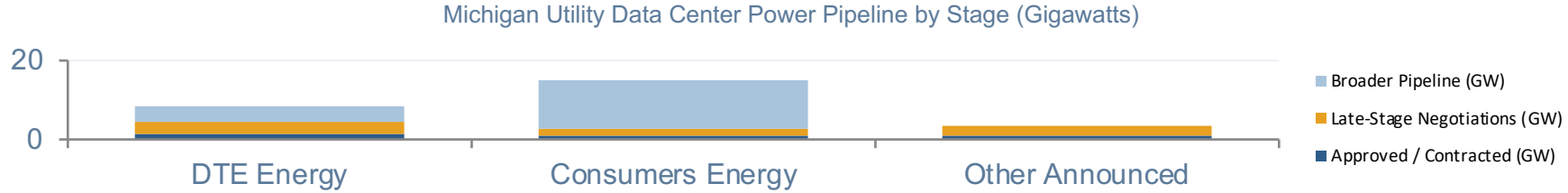
Acres of land acquired or under proposal

Saline 575 · Allegan Co. 1,077 · Augusta 800 · Gaines/Lowell 594

34+

Separate data center projects proposed or active

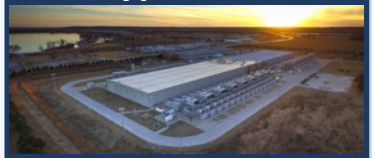
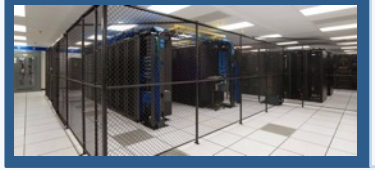
Across 10+ counties since 2024 More proposals arriving monthly



Sources: PoweredByWho Michigan tracker; Bridge Michigan; Michigan Public Radio; Planet Detroit; The Gander; DTE/Consumers MPSC filings; Blackstone/Related Digital press release (2024–2026). Investment and land figures represent publicly announced projects and may not all materialize. Pipeline GW figures reflect utility disclosures.

05 | Types of Data Centers

Not All Facilities Are the Same — Size and Purpose Vary Widely

	Who Builds It	Typical Size	Power Draw	What to Know
Hyperscale 	Amazon, Google, Microsoft, Meta	100K–10M+ sq ft	50–500+ MW	Built and operated by major tech companies for their own cloud services. These make headlines with billion-dollar investments, requiring new substations.
Colocation 	Equinix, Digital Realty	10K–500K sq ft	1–50+ MW	Third-party facilities where businesses rent space, power, and cooling. Multiple tenants share the building. Avoids need to build proprietary facilities.
Edge / Micro	Telecom providers, emerging vendors	Under 5,000 sq ft	Under 1 MW	Small, distributed facilities near end users to reduce latency. Often near cell towers. Enables smart city infrastructure, use by schools and local governments, and more.

04 | What Data Centers Need to Operate

Four Core Requirements For Every Data Center

Power

Electricity

A large data center can consume as much electricity as a small city. Facilities typically require dedicated utility substations and proximity to existing transmission lines.

Land

Space for buildings and infrastructure

Modern hyperscale campuses often span 100+ acres. Flat, buildable land with good drainage and reasonable permitting timelines is highly sought after by developers.

Water

Cooling is the primary use case

Servers generate enormous heat. Many facilities use millions of gallons annually for cooling towers. Water rights, drought risk, and discharge regulations are key considerations.

Connectivity

Fiber optic networks

High-speed, redundant fiber connections are essential. Proximity to existing fiber routes or the ability to build new ones is a major site selection factor.

What Michigan Law Requires, Allows, and Leaves Unresolved

Jobs & Tax Revenue in Michigan

Michigan law requires: At least 30 full-time jobs at 150% of local median wage to qualify for sales/use tax exemption (PA 181 & 207 of 2024).

Property Tax

Local property taxes remain — exemption only covers sales/use tax on equipment. Some projects seek 50% local tax abatements through additional negotiations.

Sales & Use Tax Exemption

PA 181 & 207 of 2024 eliminate the 6% sales and use tax on eligible equipment through 2050, and through 2065 for brownfield sites. $13M claimed so far — expected to grow exponentially with projects now in pipeline.

Michigan-Specific Factors for Community Costs

Developers Pay for Grid Upgrades

PA 181 of 2024 explicitly prohibits data centers from receiving rates that cause residential customers to subsidize infrastructure costs. MPSC confirmed: large loads must pay for any infrastructure upgrades they trigger.

Long-Term Contracts Required

Consumers Energy's MPSC-approved tariff requires minimum 15-year contracts with exit fees and minimum billing amounts — protecting ratepayers if a data center leaves early or uses less power than contracted.

Water: Reporting Required, Permits Pending

SB 762 (in committee) would require MPSC to publish annual water and energy use data per facility starting 2027. SB 761 would require state water withdrawal permits above certain thresholds with 45-day public comment.

Community Benefit Agreements

Not required by state law but actively negotiated. Saline Township secured $14M in direct community investment, farmland preservation funds, and groundwater monitoring wells as part of the Stargate settlement.

Clean Energy Requirement: 90% (Conditional)

Michigan law requires 90% clean energy sourcing only if a data center claims the sales/use tax exemption. No mandatory renewable requirement exists in utility contracts — currently contested at the MPSC.

Sources: PA 181 & 207 of 2024; MPSC orders (Nov. & Dec. 2025); SB 761-763 (Dec. 2025); Bridge Michigan; Planet Detroit; Crain's Detroit Business (2025–2026).

09 | Michigan's Legislative Climate on Data Centers

A Fast-Moving, Contested Policy Environment — What Officials Should Monitor

✓ ENACTED

PA 181 & 207 of 2024

Effective April 2025

Eliminates 6% sales & use tax on eligible data center equipment through 2050 (through 2065 on brownfield). Requires $250M minimum capital investment and 30 jobs at 150% of local median wage. Signed by Gov. Whitmer.

Ratepayer Protection (MPSC Order, 11/25)

Consumers Energy tariff approved

MPSC established framework requiring 15-year minimum contracts, exit fees, minimum billing, and upfront $100K administrative fees. Data centers must pay for infrastructure upgrades they trigger — residential customers explicitly protected.

DTE Saline Township Contract (Dec. 2025)

Approved with conditions

MPSC approved DTE's power contract for the 1.4 GW Stargate facility with conditions: data center load shed before residential customers in any emergency; developer funds 1.4 GW of battery storage; no stranded cost liability for other ratepayers.

⚖️ IN COMMITTEE

SB 761 — Water Withdrawal Permits

Senate Energy & Environment Committee

Would require a state-issued water withdrawal permit before large-scale water use by data centers, with mandatory public notice and 45-day comment period. Introduced by Sens. Bayer, Shink & Geiss (Dec. 2025).

SB 762 — Energy & Water Transparency

Senate Energy & Environment Committee

Would require MPSC to publish annual public reports of each facility's water and electricity consumption by service area beginning 2027. No usage cap — focused on public visibility.

SB 763 — Infrastructure Cost Recovery

Senate Energy & Environment Committee

Would require data centers to pay for any public water or utility infrastructure upgrades they trigger — shifting costs away from local ratepayers and taxpayers. Companion to SB 761 & 762.

Tax Repeal Package (3 bills)

Reps. DeSana (R) & Wegela (D), Dec. 2025

Bipartisan package to fully repeal PA 181 & 207 of 2024 sales/use tax exemptions. Sponsors call them 'corporate welfare.' Faces uphill battle given utility lobbying power, per lead sponsor.

⚠️ PROPOSED / CONTESTED

Statewide Moratorium Bills (HB 5594–5596)

Reps. Wortz (R), Fox (R), Wegela (D), Feb. 2026

Would ban all new data center permits until April 1, 2027, including MPSC approvals. Referred to House Government Operations Committee.

NDA Prohibition Bill

Rep. Reggie Miller

Would bar local officials from signing non-disclosure agreements when negotiating with data center developers — response to community complaints of secretive dealmaking and lack of public transparency.

Block UM/LANL Grant

Proposed legislation

Proposal to block the $100M state Strategic Site Readiness Program grant awarded to the $1.25B University of Michigan–Los Alamos data center project in Ypsilanti Township.

Local Moratoria (19+ communities)

Howell Twp., Sterling Heights, Pontiac, Huron Co. & others

At least 19 Michigan communities have enacted local moratoria. Effectiveness is legally uncertain — state law may preempt exclusionary zoning. Some moratoria have successfully prompted project withdrawals.

Gov. Whitmer's Position

Executive stance: pro-development

Whitmer has called Stargate 'the largest economic project in Michigan history' and stated she will veto any legislation that 'prevents us from growing the economy and creating jobs.'

07 | Demands on a Community

Key Considerations For Officials

Power Grid Strain

A single large facility can require the equivalent power of 50,000–80,000 homes. This may require utility upgrades, new substations, or transmission expansion — costs that must be carefully negotiated.

Water Consumption

Cooling-intensive facilities can use millions of gallons annually. Officials should understand local water supply capacity, drought risk, and discharge/wastewater implications.

Zoning & Land Use

Data centers are industrial facilities requiring specific zoning. Noise, light pollution, truck traffic during construction, and buffer requirements all need careful consideration.

Infrastructure Costs

Road improvements, utility extensions, and emergency service capacity may be required. Clarify who pays — developer commitments vs. public investment — before approvals.

Incentive Negotiation

Developers frequently request tax abatements, sales tax exemptions, and fee waivers. Know what other communities offer — and what your community needs in return.

Long-Term Considerations

Data center technology evolves rapidly. Ask: What is the planned operational lifespan? What happens if the facility becomes obsolete? Are there decommissioning obligations?

08 | Questions Officials Should Ask

1. **What type of facility is this, and who is the end user?**
   Hyperscale vs. colo vs. edge — size, impact, and incentive needs differ dramatically.

2. **What are the power and water requirements and who pays for infrastructure upgrades?**
   Utility and municipal costs can be substantial. Negotiate developer commitments upfront.

3. **How many permanent jobs will be created, at what wage levels?**
   Don't conflate construction jobs with permanent employment — they serve different community goals.

4. **What incentives are being requested, and what is the net fiscal impact?**
   Request an independent fiscal analysis. Know your break-even timeline on any tax abatement.

5. **What community benefit commitments are on the table?**
   Workforce training, local hiring preferences, or community funds are often negotiable.

6. **What happens to the facility at end of life?**
   Ask about decommissioning responsibility, environmental remediation, and property transfer terms.

Key Takeaways

- **Data centers are major infrastructure** — comparable in scale and complexity to a power plant or large industrial facility.
- **Demand is accelerating rapidly**, driven by cloud computing and AI. Your community may encounter proposals sooner than expected.
- The four key inputs — power, land, water, and connectivity — determine where facilities are built. **Know your community's profile.**
- **Economic benefits are real but require scrutiny.** Permanent jobs are fewer than expected; tax revenue depends heavily on incentive structure.
- **Officials who ask informed questions are better positioned to negotiate strong community benefit agreements.**

THANK YOU!

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