Sustainability & Innovation Division
Economic Development Department

A Frequently Asked Questions Guide to Demystifying Data Centers for Local Governments

Background:

Wayne Forward is a technical assistance program led by Sustainability & Innovation that brings our forty-three communities together to share knowledge, build capacity, and support alignment with regional and statewide Climate Goals. This document was developed in response to community requests for practical information and guidance on data center development.

Data Centers 101

1. What are data centers?
2. How many data centers are there in Michigan?
3. What do data centers need to operate?
4. What are the different types of data centers?

Impacts and Opportunities

1. What are the impacts and risks of data centers?
2. How much electricity do data centers need?
3. How much water do data centers need?
4. How much land do data centers need?
5. What are the benefits and opportunities of data centers?
6. How many jobs do data centers provide?
7. How much tax revenue do data centers provide?

Proposed Data Centers in Wayne County

1. Van Buren Township
2. Allen Park
3. Gibraltar

Data Centers 101

1. **What are data centers?**

Data centers are physical facilities that house computing equipment such as servers, storage, and networking gear. They also include power, cooling, and security systems needed to keep them running with minimal interruptions. Data centers process, store, analyze and move data that supports everyday online services, including email, video streaming, banking, cloud software, and more. Data centers vary widely in their land footprint and in their energy and water use from small closets and rooms to multiple buildings occupying hundreds of acres.

2. **How many data centers are there in Michigan?**

There are dozens of data centers already operational in Michigan. One industry directory lists about 70 facilities statewide, with 30 in the Metro Detroit area. Most existing sites are smaller facilities, but Artificial Intelligence is driving rapid demand nationwide, and developers are racing to secure suitable sites for hyperscale projects. Hyperscale data centers are massive, campus-style facilities designed for large cloud and AI workloads. They drive significant energy, water, and land-use considerations that shape local planning, siting, and decision-making. More recently, Michigan has become attractive to developers due to the state's Enterprise Data Center Sales & Use Tax Exemption that became effective April 17, 2025.

3. **What do data centers need to operate?**

For data centers to operate with minimal downtime, they need a few core things: a lot of electricity with a strong connection to the grid, cooling to remove heat from servers, and high-capacity network connections like fiber to move data in and out. They also require backup power, fire detection/suppression, and physical security to control access. Developers typically look for a site that is close to transmission lines and substations to deliver reliable power. They also look for enough contiguous land to build in phases, evaluate water availability for cooling, and consider climate and weather hazards like flooding, heat, and storms. Developers care how quickly the project can go online ("speed to market"), including navigating multiple permitting processes and the overall cost and tax incentives.

4. **What are the different types of data centers?**

Type	Description	Typical size	Typical power demand
Hyperscale	Very large, campus-style facilities built for major cloud or AI providers; designed for phased expansion and heavy infrastructure.	**~100s acres**	**~100 MW-1GW+**
Wholesale colocation	A data center operator leases large blocks of space/power to a few large customers.	**~50,000–300,000+ sq ft**	**~10–50+ MW**
Retail colocation	An operator rents small increments to many customers	**~20,000–150,000+ sq ft**	**~1–20+ MW**
Telecom / Edge	Smaller facilities tied to telecom networks or "edge" computing placed closer to users to reduce latency.	**~4,000–20,000 sq ft**	**~1–10 MW**

Impacts and Opportunities

1. **What are the impacts and risks of data centers?**

Electricity demand and grid upgrades: Large data centers often require new infrastructure and upgrades to the energy grid. Without clear and transparent cost-allocations, this can raise concerns about affordability and reliability.

Water demand: Depending on cooling technology, data centers may require substantial water use that can create competition with other local needs.

Air quality: There may be on-site pollution impacts if backup generators rely on fossil fuels like natural gas or diesel.

Noise: Data center operations can create a persistent low-frequency sound that may affect quality of life for some residents.

Community cultural fit: Data centers require large brightly lit buildings that may disrupt the local landscape.

Construction: Build out periods can increase heavy-truck traffic, dust, and quality of life disruption.

2. **How much electricity do data centers need?**

Electric demand varies widely. For example, when a proposal says a facility "uses 100 megawatts (100 MW)," that's the maximum or planned rate of electricity the site could draw at a given moment. Think of it as the maximum speed of a car. In practice "100 MW" often refers to the peak demand or ultimate build-out capacity the utility would need to plan for, which may be reached in phases and may not be used at full power all the time. The average data centers are often ~5–10 MW, while large facilities increasingly have power demands of 100 MW or more. A 100MW facility is roughly equivalent to ~83,000 homes. For comparison, an auto assembly plant may be roughly between 9-22MW. An aluminum smelter may be closer to 1.3GW (1300MW) which is equivalent to thirteen 100MW data centers. However, data centers are a more constant 24/7 load than many factories, so utilities have to plan for steady demand.

3. **How much water do data centers need?**

Water demand depends mostly on cooling technology. Air and closed-loop cooling designs use relatively little on-site water, while facilities that rely on evaporative cooling can use substantial amounts, especially in hot weather. For comparison, an "average" data center may use around 300,000 gallons per day or roughly the daily demand of ~1,000 households, while hyperscale facilities can reach as much as ~5 million gallons per day which is closer to what a whole town uses. For example, Highland Park's average day demand is about 2.18 million gallons per day. The Great Lakes Water Authority reports a maximum capacity of 2,400 million gallons per day.

4. **How much land do data centers need?**

Land needs vary based on the type of data center, including whether it is a single building or a campus-style buildout, and how much room is needed for buffers and phased expansion. Common site-selection guidance suggests ~10 acres for many modern data center projects, but hyperscale developments can require hundreds of acres to support multi-building growth over time. Recent reporting notes that large projects are frequently 200+ acres to make room for the infrastructure and buffers around them. A single-building data center might fit on a modest industrial parcel, but campus-style projects often need space for phased expansion, on-site electrical infrastructure, generator yards and fuel storage, internal roads, construction staging, stormwater management, and required setbacks/screening. For comparison, a typical big-box retailer with its parking/drive aisles is often in the 10 acres range. A 200+ acre hyperscale campus is more comparable to a large industrial park.

5. **What are the benefits and opportunities of data centers?**

For local governments, the main opportunity of a data center is in the broader package of private investment, infrastructure upgrades, and fiscal capacity that can come with it. These projects can represent very large capital investments in land, buildings, electrical equipment, fiber connections, and site improvements, and they can help position a community as part of the growing digital economy. Additionally, local governments have an opportunity to negotiate community benefits such as workforce partnerships, support for local schools or training programs, road improvements, public safety equipment, or environmental performance commitments. Capturing the upside of data centers is not automatic. Outcomes will depend on how well local governments shape the terms under which a data center is built and operated including transparency for residents, negotiating benefits, and setting strong enforceable rules.

6. **How many jobs do data centers provide?**

Data centers create far more construction jobs than permanent on-site jobs. During construction, projects support electricians, steel workers, concrete crews, equipment installers, and other trades over several months or years. Once operating, however, data centers usually employ a relatively small permanent workforce focused on operations, maintenance, security, and IT. One recent workforce analysis estimates about 0.7 to 2.0 construction workers per megawatt during buildout, and about 0.15 to 0.35 permanent workers per megawatt once online. In broad estimates, this means a 20 MW data center might support roughly 14 to 40 construction workers during buildout and about 3 to 7 permanent workers once online. A 100 MW facility might support roughly 70 to 200 construction workers and about 15 to 35 permanent workers. A 1 GW hyperscale campus could support roughly 700 to 2,000 construction workers and about 150 to 350 permanent workers.

7. **How much tax revenue do data centers provide?**

Tax revenue estimates are based on the size of the project and how long it operates, but they can be significant. A recent Michigan analysis modeled three hypothetical water-cooled data centers: a 20 MW facility, a 100 MW facility, and a 1 GW facility, and estimated their property tax contributions over 20 years of operations. On an average annual basis, a 20 MW data center was estimated to generate about $500,000 per year for county government, $126,000 per year

for local authorities, and $461,000 per year for schools, for a total of about $1.09 million annually. A 100 MW facility was estimated to generate about $2.51 million per year for county government, $629,000 per year for local authorities, and $2.30 million per year for schools, for a total of about $5.45 million annually. A 1 GW campus was estimated to generate about $21.36 million per year for county government, $5.34 million per year for local authorities, and $19.58 million per year for schools, for a total of about $46.29 million annually.

Proposed Data Centers in Wayne County

1. **Van Buren Township – Project Cannoli**

Van Buren Township is reviewing Project Cannoli, a proposed 1-gigawatt, campus-style data center planned for property north of I-94 between Haggerty Road and I-275. Public reporting describes the project as occupying about 282 acres, with an estimated water demand of roughly 2 to 3.6 million gallons per day. The project is one of the largest proposed data center developments in Michigan and is an example of newer hyperscale facilities, which can require very large amounts of land, electricity, and water.

2. **Allen Park - Solstice Data proposal**

Allen Park is reviewing a proposed 26-megawatt data center on Enterprise Drive south of I-94. Public reporting describes it as a 45,000-square-foot facility, making it much smaller than hyperscale proposals. Even at this smaller scale, the project illustrates many of the same planning questions that local government face with data centers, including power demand, site design, generators, noise, and compatibility with surrounding land uses.

3. **Gibraltar**

Gibraltar is reviewing a proposed 100-megawatt data center at the former McLouth Steel site on West Jefferson Avenue. Public reporting describes the project as an AI facility that would reuse an existing industrial building, making it different from large campus-style hyperscale proposals. City Council recently adopted a one-year moratorium on data center development while the city considers how to regulate these facilities.

Last Updated: March 18, 2026

This FAQ will be updated regularly as new information becomes available. It is provided for general informational purposes only and does not constitute legal advice. If you have a question you would like us to address in a future update, ***please email sustainability@waynecountymi.gov***

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