WHAT MICHIGAN LOCAL GOVERNMENTS SHOULD KNOW ABOUT DATA CENTERS

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Table of Contents

Background & Purpose

While data centers have operated in Michigan for some time,[1] they have largely existed without debate or public scrutiny. With the growth of AI and cloud computing, however, demand for larger, more resource-intensive data center facilities has surged. Following the recent expansion of state-level tax incentives for data centers, developers have begun looking to Michigan to identify new siting opportunities for significantly larger facilities.

Much has been written about the opportunities and risks that AI and data centers pose to society at large.[2] **This guide is not intended to resolve or mediate this society-wide debate; instead, it focuses on local-level considerations.** Like all land uses, data centers bring both positive and negative local impacts to the communities that host them. These impacts can vary depending on the specific technology used within a data center, the state regulations that shape its development, and its location within the host community. For example, there is a trade-off between the amount of water and energy a data center consumes, which depends heavily on the cooling technology used. State and local policy can also shape data center impacts on water and energy, as well as the direct economic impacts on the host community, including property taxes and job creation.

This guide is intended to provide Michigan local government officials and planners, particularly those with zoning authority, with the information they need to effectively participate in data center siting conversations. The first section of this guide provides a basic introduction to the environmental and economic impacts of data centers and links them to the current Michigan policy context. In the second section, we offer planning and zoning recommendations applicable not just to data centers but to a range of industrial land uses. Wherever possible, we draw on lessons from data center development in other states and from other industrial development, including our own expertise with large-scale renewable energy projects. **Since policies, technologies, and best practices for data center siting are rapidly evolving, readers should treat this guide as a working document. We plan to revise it or add supplementary guides as we learn more.**

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[1] Estimates range on the number of data centers currently in Michigan, likely due to the broad definition of what constitutes a data center. The U.S. Department of Energy's Office of Scientific and Technical Information's Data Center Atlas lists nine data centers in Michigan. Recent local reporting has noted approximately 44 data centers in the state. Mongird, K., Thurber, T., Vernon, C., Burleyson, C., Akdemir, K. Z., & Rice, J. (2025). *Im3 open source data center atlas*. Pacific Northwest National Lab (United States). https://doi.org/10.57931/2550666; *Your guide to Michigan's data center boom—And the growing backlash*. (2025, November 18). WKAR Public Media. https://www.wkar.org/wkar-news/2025-11-17/your-guide-to-michigans-data-center-boom-and-the-growing-backlash

[2] *Data centers are amazing. Everyone hates them.* (n.d.). MIT Technology Review. Retrieved February 5, 2026, from https://www.technologyreview.com/2026/01/14/1131253/data-centers-are-amazing-everyone-hates-them/; Copley, M. (2025, October 14). Data centers are booming. But there are big energy and environmental risks. *NPR*. https://www.npr.org/2025/10/14/nx-s1-5565147/google-ai-data-centers-growth-environment-electricity

Data Center Basics

A data center is any physical room or facility that houses information technology infrastructure. Many data centers provide computing services that keep websites running, enable video streaming, and support the software used by banks, hospitals, and human resources departments. With the rise of technologies such as cloud-based services and the Internet of Things (e.g., “smart” appliances, building systems, and other equipment that send data and can be controlled via the internet), we have seen the construction of newer, larger data centers to accommodate these increasingly popular technologies.[3] In particular, the advent of generative artificial intelligence (genAI) and large language models (LLMs) has driven the development of very large data centers.

A data center’s infrastructure includes not just the servers (i.e., computers) that store and process information, but also networking equipment to get information to and from the internet, power supply equipment to protect the computers against fluctuations in electricity, and environmental control equipment to cool and maintain humidity.[4] The graphic on the next page includes a useful depiction of the components of a data center.

While a data center supporting a small business’s operations, for example, may be as small as a closet, most of the current attention – and the rest of this guide – focuses on large, “hyperscale” data centers. Hyperscale data centers house over 5,000 servers, and have a footprint ranging in size from 10,000 to millions of square feet.[5] Generally, the digital services enabled by hyperscale data centers benefit a national or multi-region customer base rather than just the community or business property where the facility is located.

Data center companies choose sites for new development based on a variety of factors. In addition to needing to find a site with enough land to house the data center, they also require sites near an electric transmission line with sufficient capacity to provide power to the facility and high-capacity, low-latency fiber-optic cable to connect to the internet.[6] [7] If the data center plans to use water for cooling, it must also be sited near an adequate water source. From a financial perspective, developers are also more likely to build new facilities in localities that offer tax exemptions or other financial incentives.

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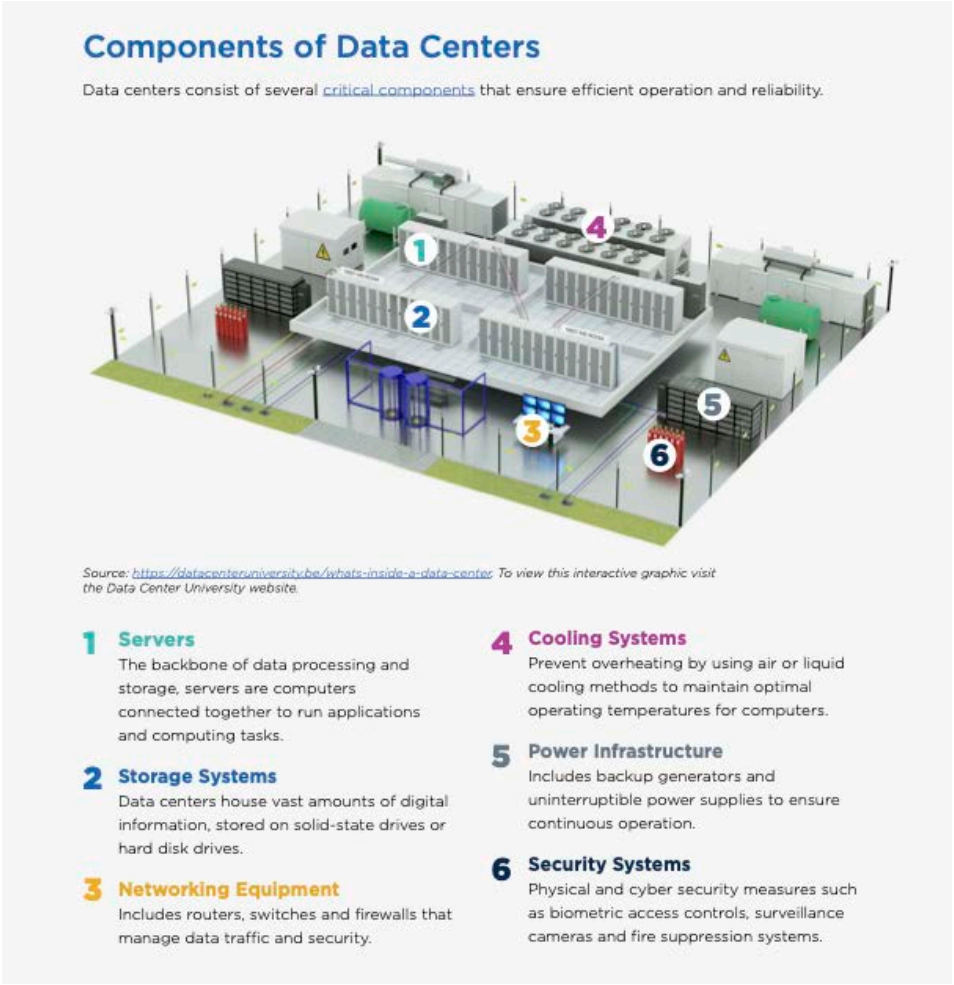
[3] Center for Sustainable Systems, University of Michigan. 2025. "Artificial Intelligence Factsheet." Pub No. CSS25-22. https://css.umich.edu/publications/factsheets/built-environment/artificial-intelligence-factsheet

[4] *What is a data center?* | *ibm*.

[5] *What is a hyperscale data center?* | *IBM*. (2024, March 21). https://www.ibm.com/think/topics/hyperscale-data-center

[6] CallisonRTKL, R. B., Vice President and Director, Mission Critical Group. (2015, January 19). *Parameters to consider in the data center location decision*. Area Development. https://www.areadevelopment.com/data-centers/data-centers-q1-2015/data-center-location-decision-parameters-46734866.shtml

[7] A recent trend in hyperscale data center development is for hyperscalers to build their own privately-owned, low-latency fiber networks if their preferred site lacks reasonable access to backbone fiber. Datacenters.com. (2025, September 3). *Who’s Building the Next 200MW Colocation Campuses—And Why?* . https://www.datacenters.com/news/who-s-building-the-next-200mw-colocation-campuses-and-why



Source: National League of Cities

Environmental Impacts and Michigan Policies

This section details a summary of key environmental impacts; generally, the most environmentally-friendly data centers are those that:

- Use water- and energy-efficient equipment and practices within the data center
- Are powered by electricity sources that have low water use and reduced emissions[8]
- Have thoughtful site selection that avoids important habitats and sensitive lands
- Commit to decommissioning - removing infrastructure at the end of the facility's useful life

Energy and Water Consumption

Questions about water and energy consumption frequently arise in data center discussions. Because the numbers associated with data center resource consumption are so large, it may be helpful to put them in context. Some of the most water-intensive hyperscale data centers, for example, can require up to five million gallons of water per day.[9] Putting this into perspective within Michigan's context, the Great Lakes Water Authority's five freshwater treatment plants have maximum rated capacities between 240 and 540 million gallons per day, and currently have an estimated combined maximum demand of 1 billion gallons per day.[10] Using an example within the context of Michigan's energy consumption, the proposed data center in Saline Township would require 1,400 megawatts of power capacity. By comparison, the state's total generation capacity in 2024 was just over 32,000 megawatts.[11]

Energy and water consumption are presented here together because they are linked. While there is currently a gap in publicly available data on energy and water use by specific computing and cooling technologies,[12] we do know that there is typically a trade-off between energy and water use. Technologies like evaporative cooling are more energy-efficient but more water-intensive. Meanwhile, air-cooled or closed-loop chillers use minimal to no water, but are energy-intensive.[13] Both types of cooling systems are common, and often the developer may choose between them based on availability of water and cost; the water-efficient closed-loop systems are currently more costly than open-loop evaporative cooling.[14] As noted in this document's state-level tax abatement section, the sales and use tax exemptions for "enterprise" data centers, which were

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[8] Xiao, T., Nerini, F.F., Matthews, H.D. *et al.* Environmental impact and net-zero pathways for sustainable artificial intelligence servers in the USA. *Nat Sustain* 8, 1541–1553 (2025). https://doi.org/10.1038/s41893-025-01681-y

[9] Wroth, K. (2025, October 17). *Data drain: The land and water impacts of the ai boom*. Lincoln Institute of Land Policy. https://www.lincolninst.edu/publications/land-lines-magazine/articles/land-water-impacts-data-centers/

[10] GLWA 2022—2026 CIP Appendix D: System Background Information. (n.d.). Great Lakes Water Authority. https://www.glwater.org/wp-content/uploads/2020/12/GLWA-2022-2026-CIP_AppendixD.pdf

[11] https://www.eia.gov/electricity/state/michigan/

[12] Shehabi, A., Smith, S.J., Hubbard, A., Newkirk, A., Lei, N., Siddik, M.A.B., Holecek, B., Koomey, J., Masanet, E., Sartor, D. 2024. 2024 United States Data Center Energy Usage Report. Lawrence Berkeley National Laboratory, Berkeley, California. LBNL-2001637. https://escholarship.org/content/qt32d6m0d1/qt32d6m0d1.pdf

[13] *Google's Water Risk Framework Assessing watershed health in data center communities*. (2023, December).

[14] *Chilling out: Data centers find new ways to reduce cooling costs | news & insights*. (n.d.). Gray. Retrieved February 4, 2026, from https://www.gray.com/insights/chilling-out-data-centers-find-new-ways-to-reduce-cooling-costs/

signed last year, include requirements related to water and energy. However, these same provisions are not required for the “qualified” data center exemption category, which has been available since 2015.

When thinking about a data center’s sustainability, something to note is that even in data centers that have minimal *direct* use of water for cooling, there may still be *indirect* use of water. That is because most U.S. power plants are thermoelectric[15] and require significant amounts of water to operate.[16] This indirect water impact is no different from that of other high-demand electricity users, and can be minimized when data centers are located in electricity grids that have less reliance on thermoelectric power plants or when the data centers themselves are powered by electricity sources that do not require water for operations (e.g., wind and solar power). Consequently, this water use is rarely in the community hosting the data center, but rather in communities that host power plants that supply electricity to the grid. While Michigan’s electricity fleet has been reducing its reliance on thermoelectric power plants as it adds renewables to the grid, in 2024, Michigan’s electric power plants withdrew roughly 5.4 billion gallons of water per day for power plant cooling.[17]

Like the federal government, Michigan does not have policies specifically governing data center energy use.[18] However, the Michigan Public Service Commission (MPSC, also known as the Commission) regulates several policies relevant to data centers. Primarily, the MPSC regulates both the investor-owned utilities that charge data centers for electricity and natural gas and the terms of service under which those utilities operate. The Commission also requires all entities that provide electricity to customers in Michigan, including investor-owned utilities, cooperatives, municipal utilities, and alternative electric suppliers, to prove each year that they have adequate resources planned four years ahead to meet their customers' electricity needs.[19] Furthermore, the Commission has the power to require additional customer protections in special contract requests submitted by investor-owned utilities seeking to work with data centers, and to attach conditions to any approval it grants. However, the Commission cannot control where data centers are built, approve their construction, or issue permits related to their water consumption.[20]

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[15] A thermoelectric power plant uses an energy source (e.g., coal, natural gas, or nuclear) to heat water to create high-power steam which is then used to spin a turbine to generate electricity.

[16] In 2023, data centers directly consumed approximately 17 billion gallons of water in their operations and indirectly consumed 211 billion gallons through their energy use. Sadasivam, N. (2025, November 24). *How to make data centers less thirsty*. Grist. https://grist.org/energy/how-to-make-data-centers-less-thirsty/

[17] Annual Report of the Great Lakes Regional Water Use Database. (2024). Great Lakes Commission. https://cms.waterusedata.glc.org/media/2024-Water-Use-Report-FINAL.pdf

[18] There is currently federal guidance (not requirements) on data centers used by the federal government. Offutt, M., & Zhu, L. (2025). *Data Centers and Their Energy Consumption: Frequently Asked Questions*. Library of Congress. https://www.congress.gov/crs-product/R48646#fn59

[19] *Resource planning*. (n.d.). Retrieved January 4, 2026, from https://www.michigan.gov/mpsc/regulatory/electricity/resource-planning

[20] *Issue Brief:Case No. U-21990, DTE Electric’s Application for Approval of Special Contracts*. (2025, December 18). Michigan Public Service Commission. https://www.michigan.gov/mpsc/-/media/Project/Websites/mpsc/consumer/info/briefs/Issue_Brief_U_21990_DTE_12_18_25-(002).pdf

The MPSC also manages the implementation of Michigan's clean energy standard, legislation that shapes the types of power plants that provide electricity to Michigan utilities.[21] This law requires utilities to obtain 15% of their power from renewable energy resources each year through 2029, and then 50% in 2030. In 2035, an 80% clean energy standard will take effect, with a target of 100% in 2040. During this transitional period, the MPSC is responsible for reviewing each utility's renewable energy plan to ensure compliance with the standard and for approving cost-recovery mechanisms for regulated utilities. The Commission also has the ability to grant a utility an extension for compliance under certain circumstances.[22]

While the MPSC has jurisdiction over the state's utility rates and customer protections, the Department of Environment, Great Lakes, and Energy (EGLE) regulates water withdrawals. Within EGLE, the Geologic Resources Management Division (GRMD) oversees Michigan's regulation of large quantity water withdrawals, with the goal of protecting the state's environment from significant impacts caused by large-volume water consumers. Specifically, Michigan landowners, such as a data center using traditional evaporative cooling, must obtain prior approval before operating pumps capable of withdrawing at least 70 gallons per minute.[23] The permitting process relies on GRMD's Water Withdrawal Assessment Tool (WWAT) for wells or surface water intakes from streams, rivers, or ponds with less than five acres of surface area. GRMD grants approval when no Adverse Resource Impact (ARI) on nearby streams and rivers is determined, resulting in a Water Withdrawal Registration that becomes void if the withdrawal isn't operational within 18 months.[24] Further permitting is required in sensitive areas or when large-quantity withdrawal owners seek new or increased withdrawals exceeding 2,000,000 gallons per day (pumps with flow rates of 1,389 gallons per minute or more).[25] These regulations apply to any on-site water producers in the state, from agriculture to public water supplies, and would apply whether a data center seeks to withdraw water via a well or if its increased demand would prompt a public water supply to increase its water withdrawals.

In the case of a data center seeking supply through a public water utility, Michigan's Safe Drinking Water Act requires these facilities maintain adequate capacity and reliability for existing customers.[26] Further, EGLE will reject water treatment plant construction permits if capacity assessments reveal a proposed expansion or alteration will leave a system with inadequate technical, financial, or managerial capacity to meet requirements.[27]

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[21] *Clean energy standard*. (n.d.). Retrieved January 4, 2026, from https://www.michigan.gov/mpsc/commission/workgroups/2023-energy-legislation/clean-energy-standard
[22] MCL 460.1032 (2). https://legislature.mi.gov/documents/mcl/pdf/MCL-ACT-295-OF-2008.pdf
[23] *Wwat*. (n.d.). Retrieved October 7, 2025, from https://www.egle.state.mi.us/wwat/home
[24] *Wwat*. (n.d.). Retrieved October 7, 2025, from https://www.egle.state.mi.us/wwat/home
[25] *Wwat*. (n.d.). Retrieved October 7, 2025, from https://www.egle.state.mi.us/wwat/home
[26] Safe Drinking Water Act, Mich. Comp. Laws § 325.1005(1)(e) (1976).
[27] Safe Drinking Water Act § 325.1004(2), (7).

Wastewater

Data center cooling systems influence not only water consumption but also the overall quality and volume of wastewater produced. Some cooling systems, like evaporative cooling, can generate wastewater with altered pH, and high concentrations of conditioning chemicals and biocides that are used to reduce the growth of bacteria such as *legionella*.[28] While these chemicals are important for minimizing
public health risks, they could strain local treatment plants that are not equipped to handle them. Other next-generation data center designs, such as closed-loop and dry cooling, are moving toward minimal or near-zero wastewater discharge.

EGLE's Water Resources Division (WRD) regulates waste or wastewater discharging into the waters of the state. Waters of the state are defined in law as groundwaters, lakes, rivers, and streams, along with all other watercourses and waters, including the Great Lakes. The regulations applicable to wastewater discharges can be divided into three permitting categories: discharges directly into surface water, discharges directly onto the ground or subsurface into the groundwater, and indirect discharges into nearby municipal wastewater treatment systems.

The first category applies to anyone discharging, or proposing to discharge, waste or wastewater into the state's surface waters. This type of permit is required by law under the National Pollution Discharge Elimination System (NPDES) program. This applies to any type of wastewater, including commercial, industrial, and sanitary sewage. The NPDES program is intended to control direct discharge into the surface waters of the state by imposing effluent limitations and other conditions to meet state and federal requirements.

The second category applies to anyone discharging, or proposing to discharge, waste or wastewater directly onto the ground or into groundwater. This type of discharge would require a Groundwater Discharge Permit or an exemption. A groundwater discharge permit imposes effluent limitations and/or groundwater limits set to protect the groundwater for the intended purposes. The intended purposes include protecting nearby drinking water wells, along with groundwater seeping into nearby surface water, to ensure the groundwater is safe for all who use it. This permit type applies to any wastewater, including commercial, industrial, and sanitary sewage. There are other regulating authorities, such as the Local Health Departments, that may become involved through the issuance of construction permits for discharges containing only sanitary sewage generating less than 10,000 gallons per day.

The third category applies to any indirect discharges (those who discharge to a municipal wastewater treatment facility via a sanitary sewer) and does not require an NPDES or groundwater discharge permit. Discharge to a separate storm sewer (i.e., does not go to a municipal wastewater treatment facility) is considered a direct discharge and may require either

[28] CDC. (2024, May 8). *Strategies for identifying cooling towers*. Investigating Legionnaires' Disease. https://www.cdc.gov/investigate-legionella/php/public-heaMichiganlth-strategy/identifying-cooling-towers.html

an NPDES or a groundwater discharge permit. Discharge to a municipal wastewater treatment facility may require a permit from the municipality under the Industrial Pretreatment Program.

Air Quality

The main air quality impact of data centers stems from emissions associated with electricity production, specifically nitrogen oxides and fine particulate matter (PM2.5).[29] Data centers typically draw most of their power from the grid, so the majority of these emissions are generated off-site in the communities hosting the power plants serving the power grid at large. Thus, when data centers are built in regions with cleaner power plants, these air emissions are lower. This impact can be furthered through the adoption of flexible operational strategies, such as load shifting, dynamic scheduling, and participation in virtual power plant (VPP) programs, which can help reduce emissions during peak demand periods. While these strategies are not yet widespread, research indicates that they most effectively reduce emissions when utilized in regions where renewables are already abundant and cost-competitive.[30]

Even when connected to the grid, data centers have on-site back-up generators, typically fueled by natural gas or diesel, to maintain operations during outages.[31] Actual emissions at the data center will depend on the number of generators, their size, and permitted runtime hours, and will vary based on individual data center operational standards. In Michigan, EGLE's Air Quality Division (AQD) requires air use and installation permits for equipment emitting air contaminants unless exempted explicitly under Part 2 of the air quality rules (Rules 277-291). While Rule 285(g) exempts the sort of small internal combustion engines that might be used in emergency back-up generators, data centers must also comply with Rule 278, which prohibits using exemptions when total project emissions exceed significance thresholds (e.g., 40 tons/year of nitrogen oxides, 100 tons/year of carbon monoxide, or 10 tons/year of particulate matter 2.5 micrometers or smaller). If aggregate emissions from all back-up generators exceed these thresholds, individual engine exemptions become invalid, and the site must obtain a permit for the entire fleet of generators on-site and any other air-emitting equipment.[32]

Land

As with other land uses, the environmental impact of a data center on its site largely depends on site characteristics, the land management practices used during construction, and what happens to the site at the end of the facility's lifespan.

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[29] Mitigating the public health impacts of ai data centers. (2025, November 5). *Harvard Business Review*. https://hbr.org/2025/11/mitigating-the-public-health-impacts-of-ai-data-centers

[30] Tran, T. (2025, October 29). Flexible data centers and the grid: Lower costs, higher emissions? -. *CEEPR*. https://ceepr.mit.edu/flexible-data-centers-and-the-grid-lower-costs-higher-emissions/

[31] *A primer for local governments: Understanding data centers*. (2025, April). National League of Cities. https://www.nlc.org/wp-content/uploads/2025/04/Data-Centers-Fact-Sheet.pdf

[32] Insights from Liesl Clark, Director of Climate Action Engagement at the University of Michigan

Data centers may cause environmental harm if sited in areas with sensitive natural features, such as steep slopes, wetlands, floodplains, and unique habitats. Construction activities, such as grading or heavy equipment use, can lead to soil compaction, topsoil removal, and changes in natural water flow, which can hinder the site's future plant growth and water-holding capacity.[33] Furthermore, if infrastructure is abandoned at the end of the project's life, it may result in the creation of a brownfield or make future redevelopment challenging. Such impacts, however, are not unique to data center development, and there are already state and local policies in place to address these common concerns with other industrial developments.

Sometimes there is a concern about whether data centers will impact other land uses, for example, by converting agricultural land. Even if many data centers are constructed, at the national- or state-level, they are only expected to be a minuscule fraction of total land area.[34] At the local level, however, there could be noticeable impacts if multiple large data centers are built in close proximity, or if data center development is combined with land-use changes from other sectors (e.g., housing development, energy infrastructure).

Quality of Life

In addition to direct impacts on land, data centers can raise several quality-of-life concerns for neighboring properties. Drawing on lessons from data centers in both Loudoun County, Virginia's "Data Center Alley," and Linn County, Iowa, we have learned that many of these issues can be mitigated through attentive siting.

Many quality-of-life concerns arise from other similar types of industrial development. Construction activities, for example, often have exceptionally high levels of disruption for neighbors, with heavy truck traffic, construction-related noise, and dust.[35] When foundations are being constructed, the developers may need to dewater, raising concerns of temporary impacts on local water tables or soil erosion.[36] As with other construction activities, soil erosion permits issued by the county or municipality would be required for "any earth change activity that disturbs one or more acres of land or which is within 500 feet of a lake or stream."[37] Similarly, when data centers or other industrial activities are developed on previously undeveloped sites,

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[33] Augst, T., Fierke-Gmazel, H., Gould, M. C., Krol, M., Mills, S., Neumann, B., Reilly, M., & Stoetzer, O. (2025). Planning and Zoning for Solar Energy Systems: A Guide for Michigan Local Governments (Updated ed.). Michigan State University Extension, Michigan State University School of Planning, Design and Construction, and University of Michigan Center for EmPowering Communities.

[34] Power Play: The Emerging Powered Land Opportunity (n.d.) Hines. Retrieved January 5, 2026,https://www.hines.com/powered-land/power-play-full-report

[35] *Data Centers in Virginia*. (2024). [Report to the Governor and the General Assembly of Virginia]. Joint Legislative Audit and Review Commission. https://jlarc.virginia.gov/pdfs/reports/Rpt598.pdf

[36] *$750m iowa data center's unpermitted wells draw $20k fine against dewatering contractor | engineering news-record*. (n.d.). Retrieved February 4, 2026, from https://www.enr.com/articles/61162-750m-iowa-data-centers-unpermitted-wells-draw-20k-fine-against-dewatering-contractor

[37] Soil Erosion and Sedimentation Control Program (SESC). (n.d.). Retrieved February 6, 2026 from https://www.michigan.gov/egle/about/organization/water-resources/soil-erosion/sesc-overview

there is a visual change to the landscape. This is apparent not just during the day, but also at night when parking lot and security lighting may create a notable change to the nighttime character of the property.

Other impacts, though, are more unique to data centers. One of the primary complaints of existing data centers in Loudoun County, for example, is the associated noise.[38] Unlike many industrial facilities with variable operational patterns, data centers operate continuously, producing consistent noise that can be problematically disruptive for neighboring residents. In particular, Loudon County found that inaudible low-frequency sounds were a nuisance to some data center neighbors.[39]

[38] *Data Centers in Virginia*. (2024)
[39] *Data Centers in Virginia*. (2024).

Economic Impacts and Michigan Policies

The primary draw of data centers as a land use, at both the state and local levels, is the economic activity they generate. There are, however, concerns about whether data centers will increase electricity costs for consumers. Here, we outline the potential economic impacts of data centers and the policies in Michigan that shape them.

State-level Tax Abatements to Attract Industry

Data centers, like other industries, drive economic activity in the states and communities where they are located. This includes, notably, the direct economic impacts of the surge in construction activity and the initial investment in data center equipment. But it also includes indirect economic benefits to the suppliers of the equipment and other materials that go into data centers, as well as induced effects when data center workers spend their wages on goods and services.[40] While new economic activity in a state expands the tax base and can fund state and local government services, states often reduce certain taxes to attract industry. Today, 36 states have laws approving state tax incentives for new data center development.[41]

For the past decade, the state of Michigan has offered a state-level sales and use tax exemption for "qualified" data centers, with new legislation adopted in 2024 aimed primarily at attracting hyperscale or "enterprise" data centers. The policies governing the sales and use tax exemption are from three key pairs of laws:

- Effective December 23, 2015, **PA 251 and 252 of 2015** added Michigan Compiled Law (MCL) 205.54ee and MCL 205.94cc to Michigan's General Sales Tax Act and Use Tax Act to create sales and use tax exemptions through December 31, 2035, for the sale, use, or consumption of data center equipment for qualified data centers. Under these Acts, a "qualified data center" is "facilities of one or more buildings located in Michigan that are owned or operated by an entity whose primary business is operating a data center for itself and colocated businesses; the entity must also receive 75% or more of its revenue from unaffiliated colocated businesses." The Acts required the creation of 400 new data center-related jobs by January 1, 2022, and 1,000 by January 1, 2026. Data center-related jobs include "jobs created at qualified data centers, by colocated businesses, and by contractors making improvements to realty that constitute a qualified data center."[42]

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[40] *DataCenters-JoyceFoundation_2026-01-13_Final.pdf | Powered by Box*. (n.d.). Retrieved February 4, 2026, from https://virginia.app.box.com/s/8qq2ggbdgwhf4atrorghtrcqsq64wd74

[41] *An overview of state data center-related tax incentives | naiop | commercial real estate development association*. (n.d.). Retrieved January 12, 2026, from https://www.naiop.org/research-and-publications/magazine/2024/Winter-2024-2025/development-ownership/an-overview-of-state-data-center-related-tax-incentives/

[42] *Notice Regarding Data Center Exemption*. (2016, March 14). State of Michigan Department of Treasury. https://www.michigan.gov/treasury/-/media/Project/Websites/taxes/Notices/Data_center_exemption_notice.pdf?rev=e6f7d971f9bd4eccba3f208b3fe9d862&hash=DF4CBADC90F299058E7F2F3358A823A2

- Effective February 13, 2020, **PA 29 and 30 of 2020** amended MCL 205.54ee and MCL 205.94cc to establish reporting obligations for sales and use tax exemption claims regarding the sale or purchase of data center equipment.[43] Under these Acts, persons seeking exemptions in a particular calendar year must file Form 5726 by January 31 of the following year. Form 5726 requires information on the sales or purchase price of all exempt equipment, and any information needed by the Department of Treasury to calculate School Aid Fund revenue loss as a result of tax exemption claims.
- Effective April 2025, **PA 181 and 207 of 2024** amended MCL 205.54ee and MCL 205.94cc to extend the original tax exemption period from 2035 to 2050 (and to 2065 for data centers built on brownfields), and to establish a new "enterprise data center" facility type that must meet more stringent requirements compared to "qualified data centers" to receive tax exemptions.[44] In August 2025, the Michigan Strategic Fund (MSF) published formal implementation guidelines for the new amendments, including related to clean energy, water, and green building standards.[45] Since then, several organizations have submitted comments to the MSF Board requesting changes, particularly related to the interpretation of the clean energy requirements, asking for that standard to be applied from the outset of the data center's operations rather than a future date.[46, 47]

Table 1 summarizes key features of these incentives. While both incentive categories have job-creation requirements, their other requirements vary considerably. While smaller, non-hyperscale data centers may only meet the definition of a "qualified" data center, many of the current larger data center development proposals may meet both definitions. Notably, while "enterprise" data centers have many more requirements than "qualified" data centers, the certification process provides greater certainty for developers because the certificate is granted by MSF before they purchase the equipment. By contrast, the "qualified" data center incentive is provided by the retailer at the point of sale, but subject to a Treasury audit which introduces some risk that the exemptions may have been invalid. It is difficult to determine which of the two exemptions data center developers will seek.

[43] *Notice: Report for qualified data center exemptions - form 5726*. (n.d.). Retrieved from https://www.michigan.gov/treasury/reference/taxpayer-notices/notice-report-for-qualified-data-center-exemptions-form-5726

[44] *Enterprise Data Center Sales & Use Tax Exemption*. (2025, August 26). Michigan Economic Development Corporation. https://www.michiganbusiness.org/globalassets/documents/data-center/enterprise_data_center_information.pdf

[45] *Enterprise Data Center Sales & Use Tax Exemption*. (n.d.). Michigan Economic Development Corporation. https://www.michiganbusiness.org/services/data-centerreitissuegulate/

[46] *2025-11-13 letter to msf re data center tax exemption guidelines*. (n.d.). Retrieved from https://www.documentcloud.org/documents/26285411-20.25-11-13-letter-to-msf-re-data-center-tax-exemption-guidelines/

[47] Lyijynen, N. (2025, December 11). *Comments on data center generation » mieibc*. MIEIBC. https://www.mieibc.org/comments-on-data-center-generation/

Table 1. Summary of Sales and Use Tax Exemptions for Qualified and Enterprise Data Centers

	Qualified Data Center	**Enterprise Data Center**
Key definitional feature	Must receive 75% or more of revenue from colocated businesses that are not affiliates of the owner/operator	Must have a minimum of $250M equipment investment
Job Requirements	400-1,000 aggregate statewide	30 per facility at 150% median prosperity wage
Clean Energy	No requirements	90% of usage (interpretation unclear, see below)
Green Building Standards	No requirements	One or more certified standards within 3 years
Water Source	No requirements	Municipal
Property Tax	No requirements	Cannot receive sunset, state, or local property tax benefits without local approval
Certification Requirements/Details	To claim the exemption when purchasing eligible data center equipment, the purchaser must provide a completed Michigan Sales and Use Tax Certificate of Exemption (Form 3372) to its seller. Must also file Form 5726	Must receive Michigan Strategic Fund certification before making purchases that are qualified for the exemption. No new certifications after December 31, 2029.
Revocation	No requirements	If certification is revoked, repayment of all related tax exemptions is required (if the revocation occurs 10 years after certification, 50% of the tax exemptions must be repaid).

Local Taxes and Employment

Job creation is a primary focus of state-level tax incentives. While state-level estimates of Michigan-specific job creation suggest there will be significant employment opportunities,[48] it is unclear how many direct or indirect data center jobs could be filled by residents of the host community. The vast majority of direct data center jobs are temporary construction positions. Once completed, there would be on-site operational and security positions, but estimates of how many range from dozens[49] to hundreds.

The more significant economic incentive for the host community would likely be the property taxes paid by the data center developer and operator. Because data center equipment is costly, data centers can significantly increase the property tax base. However, these increases may shift year-to-year.

The State Tax Commission lists data centers as a commercial use,[50] and the equipment within the data center would be taxed as commercial personal property. Most of the equipment, including servers and networking equipment, would likely be reported in Section F of the Personal Property Statement, which has a relatively fast depreciation.[51] The 2026 multipliers for Section F assess true cash value at 60% of the installed cost of that equipment in year 1, but just 8% of the true cash value when that equipment is 7 years old. As older equipment in the data center is replaced with newer equipment, that new equipment would again start out at a 60% multiplier, but–as is the case with many classes of personal property–there may be years when the taxable value of the personal property is less than the previous year. If there is a large increase in the real property on the site (for example, from new buildings or significant site improvements), these swings in tax revenue may be more muted. Regardless, local governments may need to think strategically about how to utilize these new personal property tax revenues. Lessons might be gleaned from our recent guide on renewable energy revenue streams.[52]

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[48] Group, T. B. (n.d.). *Michigan data center jobs 2026: Openai stargate hiring update*. Retrieved February 4, 2026, from https://thebirmgroup.com/michigan-data-center-jobs-2026-stargate-project-brings-thousands-of-opportunities-to-washtenaw-county/; *Gov. Whitmer submits public comment in support of stargate project, creating thousands of jobs, meeting strong environmental standards*. (n.d.). Retrieved February 4, 2026, from https://www.michigan.gov/whitmer/news/press-releases/2025/12/03/whitmer-submits-public-comment-in-support-of-stargate-project-creating-thousands-of-jobs

[49] Chung, W. (2025, October 6). *Data center staffing levels: How many people does a facility need?* Broadstaff. https://broadstaffglobal.com/data-center-staffing-levels-how-many-people-does-a-facility-need

[50] Michigan State Tax Commission Property Classification MCL 211.34c. (2018) https://www.michigan.gov/treasury/-/media/Project/Websites/treasury/MISC_4/ClassificationRealProperty.pdf?rev=efb8cc4963494e1393d2675b4fab9092&hash=B7240AE93E5ABE808D0CDC7FD8AB38BE

[51] 2026 Personal Property Statement (Form L-4175), https://www.michigan.gov/taxes/-/media/Project/Websites/taxes/Forms/Property-Tax/632/632_ty2026.pdf?rev=9bd5f68f4fda4d828cc4306ea6ba749b&hash=F72987A0B2EC0E2795E0C065E33E265D

[52] Stoetzer, O., Krol, M., & Mills, S. (2025). Strategies for Renewable Energy Revenue: A Guide for Michigan Local Governments. University of Michigan Center for EmPowering Communities. https://graham.umich.edu/project/renewable-energy-revenue

Local governments do have discretion to offer data center property tax incentives, including via PA 198 agreements.[53] In certain situations, data centers may also be eligible for property tax exemptions via the Michigan Renaissance Zone Act, which are not approved at the local level but instead approved by the Michigan Strategic Fund.[54] In order to qualify for the "enterprise" data center sales and use tax exemption, however, any local property tax incentive must be approved by each local unit of government affected by the incentive. This is not a provision to qualify for the "qualified" data center sales and use tax exemption.

Impacts on Electricity Rates

Another common data center question is whether they will increase electricity costs, given the reports on electricity rate increases in some states like Virginia and Ohio that have undergone significant data center development.[55, 56] There is also, however, nationwide data finding the opposite impact: that looking across all states, those that had increased electricity load typically saw decreases in electricity rates compared to the others.[57]

There are multiple reasons that conflicting observations can be true at the same time. One key point is that it is challenging to assess what would have happened to electricity rates in the absence of data center load growth. Across the country, U.S. average retail electricity prices have been rising faster than inflation for residential consumers due to costs associated with grid maintenance and capacity expansion.[58] On the one hand, the load growth that data centers bring can help spread these fixed grid-related costs over more kilowatt-hours of electricity consumed, thereby reducing increases or the rates themselves for residential customers. On the other hand, if grid expansion is only needed to bring data center load online, data centers may be contributing to cost increases.

In Michigan, customer utility rates and ratemaking policy are set by the MPSC. By statute, Michigan abides by cost-of-service ratemaking, which means that utility rates assign "costs to customer classes based on usage patterns."[59] Additionally, Michigan's recent legislation on enterprise data center use and sales tax exemptions dictates that these data centers can only qualify if they use an electric service rate that prevents residential customers from subsidizing

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[53] 1974 PA 198, MCL 207.551 to 207.572
[54] 1996 PA 376, MCL 125.2681 to 125.2696
[55]As data centers for AI strain the power grid, bills rise for everyday customers. (n.d.). Washington Post. https://www.washingtonpost.com/business/2024/11/01/ai-data-centers-electricity-bills-google-amazon/
[56] Saul, J. Nicoletti, L. Pogkas, D. Bass, D. and Malik, N. (2025, September 29) AI data centers are sending power bills soaring. Bloomberg Technology. https://www.bloomberg.com/graphics/2025-ai-data-centers-electricity-prices/
[57] Wiser, R., O'Shaughnessy, E, Barbose, G., Cappers, P., & Gorman, W. (2025) Factors influencing recent trends in retail electricity prices in the United States. The Electricity Journal. https://www.sciencedirect.com/science/article/pii/S1040619025000612#sec0020
[58]New Berkeley Lab report summarizes trends in retail electricity prices and price drivers. (2025, January 6). Energy Markets & Planning Berkeley Lab; Lawrence Berkeley National Laboratory. https://emp.lbl.gov/news/new-berkeley-lab-report-summarizes-trends-retail-electricity-prices-and-price-drivers
[59]Putnam, C. (n.d.). Cost of Service Ratemaking. Michigan Public Service Commission Department of Licensing and Regulatory Affairs. https://pubs.naruc.org/pub.cfm?id=53889A44-2354-D714-5158-979D43EA47CF

their facilities' electric costs.[60] Some of the Commission's recent decisions were designed to ensure that large-load customers, such as data centers, contribute significantly to the new and embedded costs associated with expanding Michigan's electric grid.

[60]Enterprise Data Center Sales and Use Tax Exemption Guidelines. (2025).

Considerations for Local Government Policy-Making

The primary tool that local governments have to shape data center development is zoning. The Michigan Zoning Enabling Act (MZEA) sets out the minimum procedures that local governments must follow when making amendments.[61] It, along with past state and federal court cases, also sets parameters for zoning authority. For example, the MZEA states that local zoning ordinances "shall not have the effect of totally prohibiting the establishment of a land use," with only a few rare exceptions.[62] While local governments have broad latitude to direct land uses to particular districts and set development standards or conditions on land uses, those standards and conditions must be reasonable and should be based on facts.[63]

Furthermore, while there is much attention to the significant community benefits that a data center may be able to bring (e.g., financial contributions to park or open-space funds, fire departments, or other community priorities), there are limitations to making these agreements required as part of zoning approval, or enforcing them if the developer decides not to make-good on the agreement.[64] Agreements with developers for community benefits are more solidly enforceable if entered into in exchange for a public subsidy of the project, such as a local property tax abatement or some other publicly-funded improvement that will benefit the project.[65] As a result, we also briefly discuss property tax abatements below. Enforceable community benefits may also result from settling a lawsuit with the data center developer, but that path comes along with additional legal fees for the local government.[66]

We offer the following considerations for local governments, but advise municipal officials to consult their local planner and municipal attorney before making any changes to their plans or zoning ordinances.

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[61] Michigan Zoning Enabling Act, MCL 125.3101 to 125.3702 (2006). https://www.legislature.mi.gov/documents/mcl/pdf/mcl-Act-110-of-2006.pdf

[62] MCL § 125.3207

[63] MCL § 125.3504

[64] Review, T. R., & Elia, E. (2024, July 18). *Legislative exactions | the regulatory review*. https://www.theregreview.org/2024/07/18/elia-legislative-exactions/

[65]Community Benefit Planning and Agreements: A Summary Overview. (2024). Michigan State University Center for Community and Economic Development. https://ced.msu.edu/upload/community%20benefits/Community%20Benefits%20Brief_FinalVersion.pdf

[66] Consent Judgment, RD Michigan Property Owner I LLC v. Saline Township, No. 2025-001577-CZ (Washtenaw County Circuit Court Oct. 15, 2025). https://salinetownship.org/uploads/notices/SalineDataCenterConsentJudgmentFinalExecutionCopy492124804975v1.pdf

#1: Consider whether your industrial zone is appropriate for data centers

The footprint of a data center and the state regulations that apply to this land use are not significantly different from those of other large industrial activities, so it may be logical for local governments to use their approach to industrial development as a starting point for data center policymaking. However, given limited greenfield industrial development in Michigan over the last three decades and the comparatively large footprint of data centers relative to other light industrial uses, we recognize that few Michigan communities have had robust conversations about their industrial zones. Now is the time for such a conversation.

The first step should be to review the spatial footprint of your industrial district(s) and the infrastructure capacity to serve them. Many industrial uses–not just data centers–require electricity infrastructure and access to water (even if only a well). Your community's master plan (sometimes called a comprehensive plan) may have already considered where infrastructure is most suitable for industrial development, and so you should compare the spatial extent of your current industrial zoning with what is suggested in the Master Plan. This will help you determine whether it is appropriate to expand your industrial district.

In addition to dictating where industrial uses may be permitted in your community, zoning also lays out which processes developers must follow if they wish to develop their properties. It is very common to allow industrial development "by-right" in industrial zones - that is, with limited discretion by the planning commission or Township board / City Council, so long as the developer meets all of the standards in the zoning ordinance (see Consideration #2). Given the increased scale of industrial developments, it may be appropriate to treat larger industrial uses (e.g., those greater than 15,000 square feet, or whatever has been typical in your community) as special land uses, which affords the Planning Commission and board the opportunity to give proposals additional review and apply conditions to their approval.

#2: Include quality-of-life impacts in industrial zoning regulation

Historically, industrial uses have been concentrated near other industrial uses to minimize impacts on surrounding land uses from emissions, noise, and light pollution. Industrial districts were commonly buffered from residential districts either through public infrastructure, such as roads or waterways, or through less sensitive uses, such as office or commercial zones. But in communities that have seen limited industrial activity, or in those where existing industrial zones are not large enough to accommodate new industrial activity like data centers, there may not be ample space to buffer from other land uses. As a result, a community might consider updating the standards in industrial zones to ensure that any new industrial activity–data centers included–is protecting quality-of-life in neighboring districts. Your community's most important quality-of-life

impacts to regulate may be informed by your comprehensive plan. Common considerations might include:

- Visual screening: While it is common to require vegetative screening in some districts, this requirement may not apply in industrial districts, particularly if your zoning ordinance did not anticipate that an industrial district would expand to abut residential areas.
- Sound: Some communities have community-wide sound standards that exist outside of zoning codes. These often apply to all noise emitters and may differentiate sound levels by time of day or day of the week (with a higher expectation of quiet on weekends). This approach sets a constant expectation for all land uses, not just industrial uses. If this is not practical, it is also possible to include sound standards for specific land uses or land-use classes. Standards that apply to large-scale renewable energy projects may be a useful starting point, as sound standards are common in the regulation of these facilities.[67]
- Light: Another common concern about industrial activities, particularly in rural areas, is the light pollution they may cause, especially when they are developed in areas without streetlights. Some communities, including Emmet County,[68] have dark-sky ordinances that limit light pollution from all land uses. These same concepts can be applied specifically to industrial uses if that is the concern. Another option is to require dark-sky-compliant light fixtures for all proposed site plans.
- Decommissioning: Many industrial facilities have specialized designs with limited opportunities for reuse at the end of their life. From our brownfield experience, when a company is no longer in business or decommissioning the facility is too costly, these facilities are sometimes abandoned, creating an eyesore and public health hazard in the community and increasing redevelopment costs. As a result, it is increasingly common that industrial facilities enter into a decommissioning agreement that includes a financial guarantee that the facility, and any infrastructure that no longer has a useful purpose, will be removed at the end of its life. Again, it may be instructive to look to large-scale renewable energy projects for sample language.

These regulations would be in addition to the setbacks, height, lot-area coverage, and parking standards that are common in most zoning ordinances. While it is possible to use these more customary regulations to help buffer or minimize the impacts of industrial uses, there may be unintended consequences (e.g., industrial uses actually requiring more land to comply with large setback requirements) and so you may wish consider directly addressing the quality-of-life concern (e.g., sound, visual impact, light), rather than using setbacks as a proxy for those concerns.

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[67] Krol, M., and Mills, S. (2024). Planning & Zoning for Battery Energy Storage Systems: A Guide for Michigan Local Governments. University of Michigan Center for EmPowering Communities. https://graham.umich.edu/project/bess-guide; Augst, T., Fierke-Gmazel, H., Gould, M. C., Krol, M., Mills, S., Neumann, B., Reilly, M., & Stoetzer, O. (2025). Planning and Zoning for Solar Energy Systems: A Guide for Michigan Local Governments (Updated ed.).

[68] Emmet County. (2023). *Emmet County zoning ordinance* (Ordinance No. 15-1, updated through April 28, 2023). https://www.emmetcounty.org/UserFiles/Servers/Server_3942756/File/Ordinances,%20Bylaws%20&%20Rules/Zoning%20Ordinance/Emmet-County-Zoning-Ordinance-4_28_2023.pdf

#3: Get commitments in writing

While it is ideal to use your zoning ordinance to set clear standards and thresholds that apply to data centers or industrial districts, you may be able to get some commitments or added specificity on particular impacts in writing. For example, if your community wants on-site generators to only run during power outages or for weekly testing, it may be beneficial to obtain that commitment in writing and specify permitted operating hours to minimize noise impacts on residents. If there are other commitments that matter to your community, such as delivery truck routes or transparency on water or energy usage, etc., consider getting them in writing as well.

The appropriate mechanism to secure written commitments for your community will depend on the specific agreement at hand and whether it is tied to zoning (for example, special land-use conditions or willingly offered terms by the developer as part of a conditional rezoning), a development agreement, or a discretionary property tax incentive. A municipal attorney can help identify the most appropriate mechanism, though guidance from the Michigan Municipal League is instructive for municipalities seeking community benefits commitments.[69]

#4: Request a Property Tax Guarantee

A primary community-wide benefit of hosting a data center is the increase in the property tax base that accompanies the project. It is not uncommon, however, for the personal property tax tables to change over the life of an industrial project such as a data center, which can prompt disputes between the local government and the taxpayer over the property tax valuation. Having a written commitment that the developer will pay the property tax revenues they discuss during the permitting process may help reassure the community that these benefits will materialize.

This approach has proven successful in Dickinson County, which accepted a Property Tax Guarantee from the developers of the Groveland Mine Solar project.[70] In the guarantee, the developer committed to a floor for property tax payments to the local governments. If the tax tables change in a way that reduces their required payments, they will still pay the committed amount. If, however, the tax tables change in favor of the local government, the developer is still responsible for paying the higher taxes.

#5: Explore data center integration with other industrial infrastructure

While a data center developer likely views the heat generated by their facility as a waste stream, other industries see it as an input and invest in generating it. Thus, there may be local

[69] *Handbook for General Law Village Officials* (p. 71). (2024). Michigan Municipal League . https://mml.org/wp-content/uploads/2024/07/CH-14-Planning-and-Zoning.pdf
[70] Stoetzer, O., Krol, M., & Mills, S. (2025). Strategies for Renewable Energy Revenue: A Guide for Michigan Local Governments.

opportunities for the data center to create a circular economy and put at least some of that heat to beneficial use. Opportunities include greenhouses, other industrial processes, and district heating systems, as is being proposed in Lansing.[71] Your local government can encourage the use of this waste stream by proactively identifying existing land uses in your community that require heat and sharing those with potential data center developers.

Similarly, local governments can explore with the data center developer the possibility of co-locating data centers with electricity infrastructure, like solar or battery energy storage. While a data center is unlikely to be able to fully power itself with on-site energy generation due to a mismatch between the footprints of large-scale renewables and data center technologies, siting some infrastructure on-site at the data center can reduce the need to build power plants elsewhere. Furthermore, this electricity infrastructure might boost the local property tax base.

[71]Kaplan, L. V. (2025, November 5). *Proposed downtown data center focused on sustainability*. City Pulse. https://www.lansingcitypulse.com/stories/proposed-downtown-data-center-focused-on-sustainability,164052

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