



MEMORANDUM

To: Mayor and City Council

Through: Jon Fortune, Deputy City Manager *JF*
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From: Andrea Bates, AICP, Interim Director, Austin Planning *AB*
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Date: August 19, 2026

Subject: **Data Centers**

The purpose of this memorandum is to provide recommendations to the Mayor and City Council in response to the [Managing Large-Load Data Centers](#) post on the City Council Message Board on May 15, 2026.

Background and Context

Data centers are buildings that house infrastructure to support computing functions; they are filled with numerous servers that process and store the data that supports businesses, telecommunications, and the modern internet. Data center sites may also include infrastructure related to maintenance, cooling, and backup electricity generation, as well as vehicle parking and loading. They may also be co-located with other uses on a site.

The rapid growth of artificial intelligence (AI) and cloud computing is driving increased interest in higher-impact data center development throughout Texas and the rest of the United States. Some new facilities that are being built across the country differ substantially from traditional data centers in both scale and operational characteristics, often requiring large campuses, extensive utility infrastructure, and substantial on-site equipment. The new, higher-impact data centers coming online across the United States tend to use significant amounts of power and water, generate heat, and may impact air quality if they choose to use certain types of emergency backup or primary generators on-site.

Across the country, the largest “hyperscale” data centers vary in size, ranging from 500,000 to several million square feet of building floor area on sites from 100 to over 1,000 acres. Data centers

of this size can require more than 100 megawatts (MW) of power to operate and sometimes need in excess of 300 MW or potentially multiple gigawatts (GW). For reference, 1 MW serves roughly 250 residential homes. **Attachment A** provides a description of the most common types of data centers and their characteristics.

Discussions are underway at the federal and state levels regarding the appropriate national and state policies for data centers. City staff are monitoring that fast-evolving landscape. On August 3, 2026, Governor Abbott directed the Public Utility Commission of Texas (PUCT) and the Electric Reliability Council of Texas (ERCOT) to conduct an audit of data centers advancing through ERCOT's interconnection process before any additional data centers are approved to move forward. The legislature continues to hold hearings on interim charges related to data centers, with reports from committees expected by the end of 2026. Additionally, the PUCT is conducting an energy and water use survey of data centers and virtual currency mining facilities, which will be shared with the legislature later this year.

While Austin Energy and Austin Water already have robust processes to review utility requirements for new development, including large users, Austin's current regulatory framework does not fully account for the unique characteristics of emerging higher-impact data centers, including hyperscale facilities. Higher-impact facilities raise significant compatibility concerns regarding visual, heat, and noise impacts due to building scale, mechanical equipment, backup generators, lighting, and continuous operations, as well as concerns related to the scale of their electric and water usage. Current regulations do not allow the City to track the development of these uses over time, do not sufficiently limit where they can be located, and do not adequately address the potential impacts of higher-impact data centers.

Current Conditions

In Austin, traditional/enterprise data centers have historically been categorized as a *Communications Services* use under the Land Development Code (LDC) and permitted in Limited Office (LO) and less restrictive zoning districts. Larger colocation data center facilities might be located in warehouse-style development within Limited Industrial (LI) zoning districts. Because data centers are not currently specified as a land use type in the Austin Land Development Code, the City does not have a reliable mechanism for tracking data center development from a zoning or site development perspective. However, Austin Planning staff have received inquiries suggesting higher-impact data centers may be under consideration for locations within City limits.

Locally, Austin Energy identified ten data centers ranging in electric load size from 1 MW up to 20 MW. State law defines large-load use as 75 MW or greater. Austin Energy is not aware of any large-load data centers requesting interconnection in its service territory at this time. Due to Austin Energy's compact service territory, limited available land, and state law requirements, new inquiries are typically in the 20 MW to 74 MW range. These facilities may contain data centers, though customers are not required to disclose, and may not yet know, what type of facility they are planning.

Based on available information, Austin Water estimates that data center customers used less than 0.3% of Austin Water's 2025 total citywide water use. None of its current data center customers meet Austin Water's "large volume" definition, which is a customer that uses more than 85 million gallons per year.

Land Use Characteristics of Data Centers

Data center impacts typically scale with the size of the facility. See **Attachment A** for a description of the most common types of data centers and their characteristics. In various communities, smaller data centers have been successfully co-located with lower-impact office uses. The data centers constructed in Austin to date mainly include smaller, traditional data centers. However, several co-located data centers have come online in recent years that industry websites indicate could eventually reach capacities approaching 25 MW.

The growth of cloud computing and, more recently, the emergence of artificial intelligence (AI) has led to the development of new, larger data centers. Large, higher-impact data centers, including hyperscale data centers, typically have the following impacts in addition to increased water and electricity use:

- **Noise Impacts:** The electrical equipment, mechanical equipment, power generation, and cooling infrastructure on the site can create significant noise, including:
 - Constant noise;
 - Low decibel noise/humming that is audible far from the site;
 - Noise at inappropriate times of day, such as through overnight testing of backup generators.
- **Building and Site Design:** Larger, higher-impact data centers are typically housed in large industrial-style buildings with limited aesthetic appeal. In addition, there may be rooftop equipment, outdoor storage, utility yards, power generators, mechanical equipment, and freight maneuvering areas on the site that will increase the visual impact of the development on the public realm and neighboring properties.
- **Light Impacts:** There can be extensive exterior lighting systems on the site that can create light impacts on neighboring properties.
- **Generator Operations:** Data centers typically install backup generators. In addition to noise impacts, generators can come with potential impacts on local air quality.
- **Cooling Infrastructure:** Larger, high-impact data centers generate a considerable amount of heat. Cooling infrastructure is required to mitigate the heat. This cooling infrastructure may include fans, as well as water cooling systems, which can impact neighboring properties and the public realm by adding to the site's noise impacts and contributing to the heat island effect.
- **Transportation/Freight Access:** While hyperscale data centers do not generate much vehicle or foot traffic, they can require regular freight access, maneuvering, and loading areas to bring equipment and supplies to the site.

Existing Land Use Regulations

The Austin Land Development Code does not currently include a specific land use for data centers, nor does it differentiate between traditional types of data centers or larger, higher-impact data centers. In practice, traditional data centers have been categorized under the *Communications Services* use which is defined as:

- COMMUNICATIONS SERVICES use is the use of a site for the provision of broadcasting or information relay services through electronic and telephonic mechanisms, but excludes major utility facilities. This use includes television, film, or sound recording studios, telecommunication service centers, and telegraph service offices. (LDC Sec. 25-2-4 (B)(19))

The *Communication Services* use is generally allowed in Limited Office (LO) and less restrictive office, commercial, and industrial zoning districts.

Due to the significant impacts of larger, higher-impact data centers, including the likelihood that these facilities place significant demands on water and energy resources, it is not appropriate to classify these under the *Communications Services* use, nor is it appropriate to classify them as *Major Utility Facilities*. While larger, higher-impact data centers do not specifically fall within any existing use classification, these uses do share some characteristics with higher-impact industrial uses like *Basic Industry*.

Staff Recommendations

The rapid expansion of higher-impact data centers presents significant land use, infrastructure, and compatibility challenges that are not entirely addressed by the City's current regulatory framework. Staff recommends several modifications to the City Code and administrative practices to appropriately manage data centers at the local level:

1. Modify the Land Development Code to:
 - Create new land uses for higher-impact data centers, including hyperscale data centers,
 - Consider identifying and/or creating zoning districts that are appropriate for these uses.
 - Apply appropriate zoning and site development regulations to these uses.

Austin Planning will lead LDC amendments and offer detailed land use recommendations in **Attachment C**.

2. Require data centers to comply with performance standards that address specific operational needs such as water, noise, heat, and lighting.
 - Develop the plan review and enforcement mechanisms; and
 - Present the recommendations to relevant Boards and Commissions and the City Council for consideration.

Austin Water, Austin Energy and Austin Development Services will collaborate on developing performance standards to address operational and resource considerations outlined in **Attachments D and E**.

3. As part of the City's economic development policy, include language that defines the City's philosophy regarding data centers, such as:
 - Clarifying that there will be no incentive to establish or locate data centers in Austin;
 - Establish that under no circumstances would a data center facility choosing to locate in Austin be exempt from meeting resource-efficiency standards, such as minimizing potable water consumption, promoting reclaimed water use, maximizing energy efficiency, and protecting Austin's natural resources.

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Austin Economic Development will collaborate with Austin Energy and Austin Water to define resource efficiency standards based on considerations outlined in **Attachments D and E**.

By establishing new land use definitions, updating zoning and site development standards, and continuing to implement utility requirements that reflect the operational realities of these facilities, the City can proactively prevent and manage appropriate uses and impacts while supporting responsible, sustainable technological and economic growth. Staff will continue working with partner departments, stakeholders, and the community to refine these recommendations and return with proposed code amendments for consideration by the appropriate Boards and Commissions as well as the City Council. Due to existing Austin Energy policies, there are currently no recommended changes for electric service regulations at this time. Additional information, context, and detailed recommendations are attached to this memorandum.

Next Steps

During the August 25, 2026 City Council Work Session, staff will present a summary of findings and recommendations, and, during the August 27, 2026 City Council meeting, staff will request approval to initiate amendments to the Land Development Code (LDC) based on the City Council's discussion and direction.

Should you have any questions or concerns, please contact Joi Harden, AICP, Acting Assistant Director of Austin Planning, at joi.harden@austintexas.gov.

cc: T.C. Broadnax, City Manager
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Attachments: Attachment A: Types of Data Center
Attachment B: Peer City Land Use Practices
Attachment C: Detailed Land Use Recommendations
Attachment D: Austin Water Considerations
Attachment E: Austin Energy Considerations

Attachment A: Types of Data Centers

Data centers have impacts that scale with their size. In various communities, smaller, traditional data centers have been successfully co-located with lower impact office uses and have operated on smaller sites. Across the country, the largest “hyperscale” data centers vary in size, typically requiring more than 100 megawatts (MW) of power to operate and sometimes needing in excess of 300 MW or even multiple gigawatts (GW). For reference, 1 MW serves roughly 250 residential homes.

The most common types of data centers and their characteristics are reflected below:

Edge Data Center

Capacity: Less than 5 MW

Building floor area: 5,000–50,000 sq. ft.

Site size: 1–5 acres

Description/use: Small facilities located close to users to reduce latency. Often support telecommunications, healthcare, manufacturing, or local cloud services.

Traditional / Enterprise Data Center

Capacity: 5–30 MW

Building floor area: 20,000–150,000 sq. ft.

Site size: 2–10 acres

Description/use: Owned and operated by a single company (banks, hospitals, universities, large businesses). Historically the most common type in cities.

Colocation Data Center

Capacity: 10–60 MW

Building floor area: 50,000–300,000+ sq. ft.

Site size: 5–20 acres

Description/use: Third-party facilities where multiple customers lease server space. Can expand over time through multiple buildings.

Wholesale Data Center

Capacity: 20–100 MW

Building floor area: 100,000–500,000+ sq. ft.

Site size: 10–50+ acres

Description/use: Large facilities leased to one or a few major customers. Often designed for cloud providers and AI companies.

Hyperscale Data Center

Capacity: 100 MW to over 1 GW (1,000 MW) across a campus

Building floor area: 500,000 sq. ft. to several million sq. ft.

Site size: 100–1,000+ acres

Description/use: Massive campuses operated by major cloud and AI companies. Designed for continuous expansion and can include dozens of buildings and dedicated utility infrastructure.

Attachment B: Peer City Land Use Practices

Regulation of higher-impact data centers, including hyperscale data centers, is an emergent area of planning practice. Numerous jurisdictions around Texas and the United States have developed land use regulations for these uses, including:

- **Dekalb County, Georgia.** Categorizes data centers based on size and energy needs. Allows less intense data centers by right in certain zoning districts. Restricts high intensity data centers to industrial districts and requires a special land use permit.
- **Fort Worth, Texas.** Is in the process of developing new regulations for data centers. Considering 250-foot building setbacks, screening, setbacks for backup generators, landscaping, acoustical barriers, and performance-based noise requirements.
- **Frisco, Texas.** Allows data centers through a Special Use Permit in Highway Districts only.
- **Hutto, Texas.** Defines Data Center use and allows them in industrial zoning districts with a Special Use Permit.
- **Irving, Texas.** Defines data centers as principal and accessory uses via square footage. Allows principal use data centers as a conditional use. Includes standards that require a 300-foot setback from residential uses, screening, maximum building height of 75 feet, and distinct standards for accessory uses.
- **Loudon County, Virginia.** Defines data centers as a unique land use. Applies design and location criteria. Requires Special Land Use permit.
- **Phoenix, Arizona.** Withholds preliminary site plan approval until a utility provider can affirm its capacity and commitment to service the data center.
- **San Marcos, Texas.** Recently voted to prohibit hyperscale data centers in all zoning districts.

Attachment C: Detailed Land Use Recommendations

Based on a review of existing regulations, peer cities' practices, and the unique operational characteristics of larger higher-impact data centers, staff identified several strategies to consider as the City develops appropriate land use regulations for this emerging land use.

Land Use Classification and Zoning

Staff recommends creating new land use definitions for data centers. New land uses should be defined based on thresholds that reflect the anticipated size/level of impact of the data center. Staff recommends modifying zoning regulations to limit higher-impact data centers, including hyperscale facilities, to zoning districts that can accommodate their scale, infrastructure needs, and operational characteristics. Staff are evaluating appropriate zoning districts and approval processes, including whether a new zoning district should be created, and whether higher impact data centers, including hyperscale facilities, should be permitted by right or through a conditional use permit in any zoning districts. Recommendations will be informed by considerations related to compatibility, nuisance impacts, infrastructure requirements, and the long-term land use implications of these facilities. The goal of any recommendation will be to ensure that the City's review process is appropriate to the likely level of impact of the facility being sited.

Compatibility and Siting Standards

To reduce potential impacts on nearby neighborhoods and sensitive land uses, staff recommends establishing specific-to-use regulations for higher-impact data centers, including hyperscale facilities, that include compatibility requirements. Potential standards include enhanced landscape buffering and increased setbacks along property lines shared with sensitive uses, such as residential, schools, daycares, hospitals, parks, hotels, other civic uses, and transit stations.

Additional setbacks may also be appropriate for outdoor mechanical equipment, substations, cooling infrastructure, and backup generators, which are often the primary sources of noise and visual impacts. In addition, data centers are not large employers, so staff recommends greater separation from planned and existing transit stations.

Site Design and Screening Standards

Large-scale mechanical equipment and utility infrastructure are defining characteristics of higher-impact data centers and can create visual and noise impacts if not appropriately screened. Staff recommends requiring all ground-mounted and rooftop mechanical equipment to be fully screened from public view and adjacent properties.

Screening should be architecturally integrated with the primary building and designed to provide both visual and acoustical mitigation. Additional landscaping and screening requirements may be appropriate for substations, cooling equipment, generators, and other utility infrastructure.

Noise Mitigation and Monitoring

Noise generated by cooling systems, mechanical equipment, and backup generators is one of the most common land use-related concerns associated with higher-impact data center development. Staff recommends project-specific noise studies and noise level limitations for hyperscale facilities.

Potential requirements include submission of a post-construction acoustical study prior to issuance of a Certificate of Occupancy and periodic monitoring during the initial years of operation. Noise studies should evaluate sound levels at the property line, nearby sensitive uses, and locations where impacts are most likely to occur.

Staff also recommends further research into low-frequency noise and humming associated with large-scale mechanical equipment, as these impacts may not be fully captured by traditional noise measurement standards.

Generator Operations

Backup generators are critical to data center operations but can create temporary noise and air quality impacts during routine testing. Staff recommends establishing operational standards for generator testing when facilities are located near residential areas or other sensitive uses.

Potential standards include limiting routine testing to specified daytime hours, requiring advance public notice of testing schedules, and restricting generator operation to emergency or reliability purposes outside of routine testing.

Attachment D: Austin Water Considerations

Current Practices

Austin Water has a robust process in place, along with a variety of tools and incentives, to help new customers use water efficiently and adopt reclaimed (recycled) water where possible. These forward-thinking strategies are designed to protect our region's drinking water supply while meeting our community's needs both now and in the future. Existing requirements include:

- City policy requires new development to fund and build the infrastructure needed to serve their development. Additionally, Austin Water's cost-of-service based rates allocate the cost to serve each customer class.
- The Water Benchmarking Application requires all commercial and multifamily site plan applicants to identify how water will be used on-site. This tool includes identifying water conservation measures and opportunities for on-site water reuse, such as using rainwater, air conditioning condensate, or connection to Austin Water's reclaimed water system to serve non-drinking water needs.
- The Cooling Tower Efficiency Program requires annual inspections and requires that 10% of cooling tower makeup water be offset with reclaimed water or onsite water reuse.
- The GoPurple Program expands the use of reclaimed water and onsite water reuse by establishing requirements—which vary dependent on the size of the development—and by offering incentives for new developments to connect to Austin's reclaimed water system or install onsite reuse systems that recycle water for uses such as irrigation, toilet flushing, and cooling.
- Austin Water's Pretreatment Program protects its wastewater system by requiring businesses to install, operate and maintain pretreatment devices and systems to remove pollutants that could damage the wastewater collection system or interfere with treatment at Austin Water's wastewater treatment plants.

Policy Proposals

As an expansion of its existing programs, Austin Water recommends requiring new, higher-impact data centers to demonstrate how they will use water-efficient measures to reduce potable water use, such as use of alternative cooling technologies. Additionally, Austin Water plans to implement water budgeting for large volume customers.

In this approach, data centers and other customers that meet a defined volumetric threshold of annual water use based on the water benchmarking application submitted during the site plan phase of development would be subject to Go Purple Program requirements to connect to the centralized reclaimed water system where available or implement onsite reuse strategies to meet non-potable water needs. Large volume customers would have a specified water budget and pay higher billing rates for water use that exceeds that budget.

Austin Water recommends developing this policy framework with subject matter experts, and providing opportunities to gather stakeholder feedback on proposed utility requirements for future Boards and Commissions and City Council consideration.

Attachment E: Austin Energy Considerations

Austin Energy has an obligation, mandated by state law, to serve all customers seeking service within the Austin Energy territory. That is, Austin Energy must allow all customers to connect to the grid in our service territory, subject to any necessary upgrades and regulatory requirements. Austin Energy currently serves ten existing data center customers. These customers range in size from 1 megawatt (MW) to 20 MWs. For reference, 1 MW is the equivalent of roughly 250 residential homes, and Austin Energy has fewer than five customers with existing energy use over 20 MWs.

State law defines large-load customers as 75 MWs or greater. At this time, Austin Energy does not have any large-load data centers requesting interconnection in its service territory. Due to a relatively compact service territory, land value and availability, and state law requirements, inquiries to Austin Energy are in the 20 MW to 74 MW range. These facilities may include data centers, though customers are not required to disclose what type of facility they are planning.

To protect existing Austin Energy customers from cost and reliability concerns that may stem from large-load data centers, Austin Energy has developed policies for electric service requests, including those above 20 MWs. Austin Energy requires customers to pay 100% of costs upfront for line extensions and infrastructure associated with requests for electric service.

Before interconnecting these customers, Austin Energy or ERCOT performs technical engineering studies based on the size and complexity of the project. Customer interconnection timelines and service requirements are contingent on the results of those technical engineering studies. Projects only proceed if the studies show the system will remain reliable after the new interconnection. Otherwise, if the customer would like to move forward, upgrades will be required. Customers with an expected cumulative load of 20 MW or more within five years of initial energization must execute a Facilities Extension Agreement (FEA) with Austin Energy. The FEA requires that payments for all system upgrades are due upfront, eliminating risk of stranded asset costs to Austin Energy customers. The FEA also requires the customer to agree to curtailing at least 50% of their energy usage in an ERCOT energy emergency or in the event of a localized reliability event.

Future protections that are currently under review include assessing methods to minimize any financial impact on the Power Supply Adjustment to protect customer bills, and monitoring ERCOT's development of requirements for voltage ride through capabilities to maintain grid stability and applying similar requirements if there is any local grid impact.

Austin Energy is closely following all state laws and regulations regarding large loads and data centers as they evolve. The Public Utility Commission of Texas will soon initiate action intended to reduce residential ratepayers' electric transmission costs through a new cost allocation methodology. This will require large loads of 75 MWs or more to pay for their portion of transmission costs, a methodology that will benefit Austin Energy customers.