Data Center Community FAQ

01 ABOUT THIS PROCESS

Why should residents trust this engagement?
Georgia Tech's Center for Economic Development Research (CEDR) is contracted to provide independent, fact-based community engagement and research, not to endorse, promote, or sell a data center on behalf of any landowner or developer. That is CEDR's institutional role regardless of client. CEDR's final report will be made public, consistent with Georgia Tech's status as a public institution, and the contracting party has no approval rights over its findings or conclusions.

What is a data center?
A facility that houses a very large number of computers. Servers are mounted in standardized cabinets (racks) set in long rows so they can be powered, cooled, connected and maintained efficiently. Data centers also hold extensive networking equipment, because the servers must constantly communicate with each other.

Georgia already has hundreds of data centers. Why is my community interested in another one?
As of September 2026, Georgia had 182 data center sites tracked (85 operating, 75 proposed, 11 approved, 2 expanding, 9 canceled). Whether your community specifically should host one is driven by market forces, county land-use, community desire, and economic-development strategies.

Will data centers become obsolete as technology improves?
Facilities are typically built on 15–20+ year investment horizons and are regularly upgraded (servers and cooling equipment can refresh every 3–5 years) rather than replaced outright. Long-range real estate investments of any kind carry inherent uncertainty.

Are there different types of data centers?
Yes, and they are mostly distinguished by size.

- Server rooms and on-site data centers: hospitals, banks, schools and some businesses have them.
- Edge data centers: smaller facilities placed close to users so content loads quickly.
- Hyperscale data centers: the very large campuses now in the news. Their size and frequency has grown as artificial intelligence (AI) has become the main workload.

02 WATER

How are modern data centers cooled?
Older, smaller facilities were cooled by blowing air over the servers. Modern AI data centers use direct-to-chip liquid cooling: a metal cold plate on each chip with liquid, usually water, flowing through it in a closed loop. That heat must then be released to the outside air using one of three main technologies:

Technology	How it works	Water use	Energy use
Evaporative cooling towers	Heat evaporates water	High; more than 80% of the water is lost to evaporation	Low
Dry coolers	Liquid stays sealed in tubes; fans blow air over them, like a car radiator	Low except on hot days	Moderate
Chillers	Compressor-based, like an industrial-scale home air conditioner	Little to none; air cooled	High

The industry has been moving away from evaporative towers because of their water loss.

How much water is used?
A modern, closed-loop data center cooling system is filled once during construction, then recirculates that same water. For example, a 500MW data center, is roughly 750,000 to 3 million gallons as a one-time fill. Ongoing annual cooling water use will depend on the climate zone that the data center is located in, with seasonal variations from summer (more water use) to winter (less water use). Any new groundwater withdrawal for a project would require its own permit from Georgia's Environmental Protection Division (EPD), independently reviewed and sized to the proposed use.

03 POWER, GRID & BACKUP GENERATION

Will this raise my electric bill?
Under Georgia Public Service Commission rules, large power users are required to cover the cost of the upstream grid infrastructure their demand requires. This is designed to prevent those costs from passing to existing residential ratepayers.

What happens if a data center is built before the grid can serve it?
Data center construction is outpacing grid upgrades. Some operators respond responsibly by building their own utility-grade power plants (a microgrid). These do not affect other customers' rates, and their environmental footprint is similar to grid power. Others rely on diesel backup generators in the meantime, which worsens local air quality; these are becoming less common as communities regulate and technology advances.

Why do data centers have diesel generators at all?
Data centers use diesel generators for the same reason hospitals and grocery stores do, to stay running during outages such as storms and hurricanes. Generators are meant to run until main power is restored.

04 NOISE

What are the noise levels, and has an infrasound study been done?
No published study has measured the infrasound/low-frequency noise spectrum of any operational data center anywhere. This is a documented gap in the science generally[1]. Local permitting could require independent, third-party acoustic monitoring with public reporting as a condition of project approval.

How loud is a given decibel level?
Each increase of 10 dB sounds about twice as loud. Commonly cited comparisons:

Level	Comparable
45 dB	Soft, steady rainfall
55 dB	Moderate, unobtrusive background noise
65 dB	Normal conversation a few feet apart
70 dB	Busy street traffic, or an upright vacuum cleaner

05 ECONOMIC IMPACT, TAXES & PROPERTY VALUES

Will this lower my property taxes?
New net county tax revenue funds general county services. Specific mechanisms for earmarking windfall revenue to directly reduce homesteaded property values are project-specific and can be adopted by the local government.

Will the developer or the public pay for infrastructure costs?
The developer invests capital in the facility, site development, and required utility and local infrastructure upgrades. Local water, sewer, and transportation upgrades are negotiated case by case, not standardized.
How many jobs will this create?

1 Wheeler, M.R., Everett, B., Williamson, S.M., and Prybutok, V., 2026, "Infrasound and Low-Frequency Noise in Data Center Environments: A Narrative Review Toward Health-Protective Acoustic Design Standards," Clean Technologies, 8(4), 126.]

Generally, modern hyperscale data centers employ a few hundred on-site staff, depending on facility size and function. The final job count largely depends on the project.

Will this affect my property value?
Effects vary by distance, buffer design, and site screening. There is no single, universal effect of data center proximity on nearby housing markets[2].

What revenue would this generate for the developer?
Developer profits and county benefits are not mutually exclusive, but neither is automatic. Both depend on specific project terms. Developer revenue in this industry comes almost entirely from leasing data center capacity to tenants under long-term contracts, commonly 10–20 years, priced per kilowatt of IT capacity. Industry-wide benchmarks suggest total revenue over the asset's life would be substantial, with developers typically underwriting toward stable, long-duration returns given the 10–20+ year tenant commitments and heavy upfront capital cost. A developer's financials generally aren't part of public disclosure requirements.

What costs don't show up in dollars?
Noise, air quality, stormwater runoff and the loss of open space are real costs to neighbors, even though they are not bought and sold. Communities generally do not charge a developer for these impacts. Instead, they regulate them through ordinances.

2 National Association of Realtors, "There's No Single 'Data Center Effect' on Housing Markets, NAR Report Finds."



06 OVERSIGHT & ENFORCEMENT

Will this go to a public vote?
No. Under Georgia law, locally elected representatives make rezoning and land-use decisions based on state law, local policy, and public input, not a direct referendum.

What can the municipality actually do to control this and what can't it do?

THEY CANNOT	THEY CAN
Institute an outright ban on a lawful use. This invites legal challenge	Create a specific ordinance with enforceable development standards (setbacks, buffers, lighting, noise limits, stormwater)
Simply decline to pass an ordinance. Without one, the project may proceed by-right, with no hearings or conditions	Require conditional-use review rather than by-right approval, preserving public hearings and county discretion
Preempt state or federal regulations including environmental permitting and grid interconnection	Negotiate a Good Neighbor Agreement with independent third-party monitoring and public reporting as standing conditions

What is a good neighbor agreement?
A GNA works in three parts: (1) a set of specific commitments from the developer/landowner (operational limits, monitoring and reporting obligations, funding commitments, hiring practices); (2) a mechanism for verifying compliance (third-party monitoring, periodic reporting to the local government or a citizen oversight body); and (3) consequences for non-compliance (financial penalties, revocation of specific approvals, or recourse through the contract itself rather than through zoning enforcement). Because a GNA is a contract, it is enforceable in the same way as any other civil agreement rather than through the police power enforcement mechanisms like citations or permit revocation available under an ordinance.

Where can I see what other communities have adopted?
Georgia Tech's Data Center Ordinance Hub, from the Energy Policy and Innovation Center, compiles ordinances by topic. Search "Georgia Tech Data Center Ordinance Hub." Rules from other states may not be allowed under Georgia's constitution.

What do Georgia data center ordinances typically regulate?
Nearly 20 Georgia jurisdictions have data center–specific ordinances. Common provisions include:

Topic	Examples from Georgia & other states
Setbacks	Commercial or industrial areas: typically about 100 ft, ranging from 15 to 1,500 ft. Next to homes, schools or hospitals: at least 100 ft and usually much more
Noise	Decibel limits at the property line, stricter at night. Next to sensitive uses, commonly 60–65 dB by day and 55 dB or less at night. Some places cap noise at pre-construction levels or allow only +5 dB at night and +10 dB by day
Backup generators	EPA Tier 4 emission standards; testing only on weekday business hours; noise limits
Power	Proof that power is secured before approval; buried power lines; fencing and noise limits on substations
Water and sewer	Proof of capacity and signed contracts; impact studies; developer-funded upgrades; limits on drinking-water use; closed-loop cooling requirements
Lighting	Downward-facing, shielded fixtures; light limits measured at the property line
Screening	Berms, walls, tree plantings and buffer design
Decommissioning	Requirements for when the facility closes