



The Realities of Data Centers in 2026



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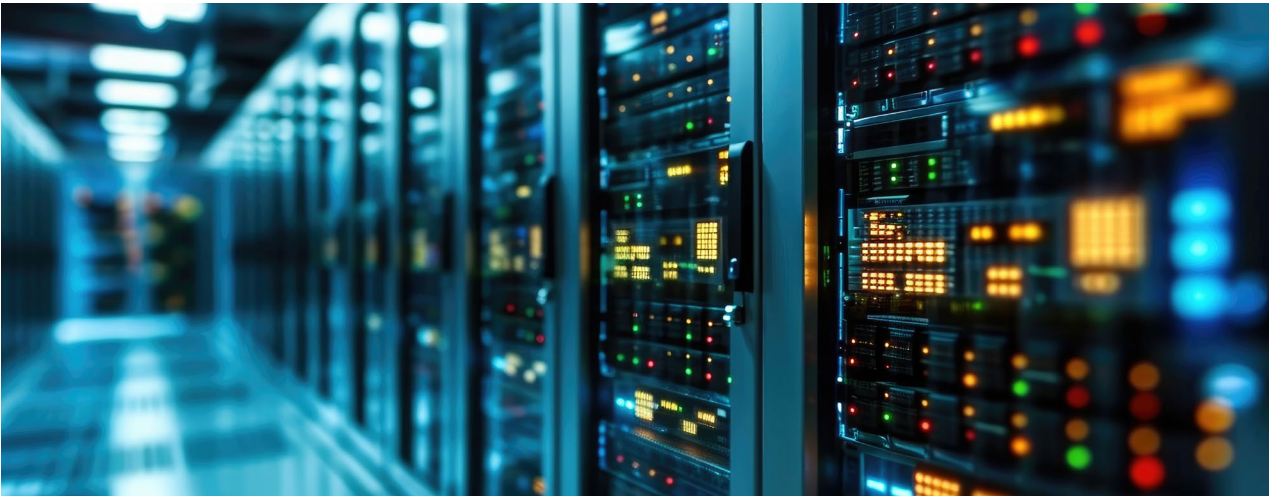
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What You Might Not Know About Data Centers

The state of data center development in 2026.



In 2018, pre-AI boom, there were about 430 hyperscale data centers worldwide. That number nearly tripled by 2025, with the total nearing 1,300, not to mention the 831 under construction in September of the same year.

The introduction and consequent takeover of data centers has been as rapid as the advancement of AI, leaving discourse in a state of confusion, justifiable concern, or sometimes even anger. Unfortunately, accessible research and information has not always kept pace with this fast-moving industry, and offered little perspective or comfort to its critics. **While innovation has evolved, public narrative has not yet fully aligned.**

While community complaints about data centers find root in real concerns, there’s opportunity for deeper understanding—and more focused advocacy—around this highly technical and complicated industry. “The market has changed drastically,” said Andrew Edwards, a data center project manager at Gray.

Edwards explained that at the introduction of data centers, everyone knew, “they wanted to build this big box with a lot of power and the ability to cool that space from the resultant heat... basically like making a very complex refrigerator with a whole bunch of plugins. But as that engineering has advanced and as things are refined, we’ve seen massive efficiencies.”

The Basics

What actually is a Data Center?

As much as data centers have become synonymous with AI, they’re not a new concept, and they support much more than AI. Most simply, data centers house information needed for digital capabilities like computing, storage, and applications. They’re the infrastructure that supports nearly every online service: everything from your email and social media usage to your boss’s payroll to government records, and of course, AI tools.

As Gray considered this functionality alongside our purpose to make a positive difference in people’s lives and build better futures, we recognized how these centers power integral tools—demonstrated by enormous demand—and want to support the technological future.

Major Concerns

Environmental and Community Impact

Not all data centers are created equal—in function and in quality. Small enterprise facilities, colocation buildings, cloud campuses, and hyperscalers all fall under the title, “data center,” but their energy usage varies widely, as does their impact on local power grids, climate, water supply, and noise pollution. But across each of these purposes, there are always approaches to be taken to develop smarter, more sustainable centers.

Even as data centers occupy a growing corner of the construction market, Gray’s unwavering commitment to quality is never sacrificed for the sake of speed or stacking up more high-dollar projects. Edwards emphasized, “our focus is producing the absolute highest quality and maintaining that standard, more so than just grabbing as many projects as possible.” This commitment to quality doesn’t just go a long way in fostering customer relationships, but in particular with data centers, it reflects a pursuit of better community relationships and a higher level of care toward local and environmental impact.

Water

The most prominently noted environmental impact is water usage. As water is used in data center cooling systems and electricity generation, some misuses and overuses have affected water quality and availability, consequently grabbing headlines and prompting attention toward better solutions. While many operators are now tracking, managing, and reporting their usage, there are [better practices being implemented](#) that vastly reduce water consumption. Namely, closed loop cooling systems.

Where traditional cooling systems could consume infinite gallons of water, closed loop cooling circulates the same working water. [Microsoft](#), for example,

has implemented this approach and said it was “consuming zero water for cooling during operations.”

The water used is also typically not drinking water and wouldn’t be used anywhere in a home—it contains pollutants, and is often even sub-tier to fire department-usable water. Edwards explained, “we’re usually using this not-top-tier water, and then we keep amending and utilizing it. So we’re getting reuse of upwards of 65%.”

In fact, Edwards was working elsewhere on research and development for liquid cooling when he heard about a liquid cooling data center Gray was developing that was the first of its kind. It’s why he came to Gray.

“There’s a lot of refinement that can be done to the current closed loop systems,” he said, “They’re still in their infancy. And I say that because Gray has had a lot of success in turning ours over, but the rest of the world is still struggling with it.”

This is an innovation that not only makes data centers more sustainable, but also more efficient, and it’s why Gray has prioritized our expertise in this approach.

Rising Energy Bills

Where data centers and their energy usage were previously measured by a number of buildings, the outsized impact of AI campuses has given way to [instead measuring by megawatts \(MW\) or gigawatts \(GW\)](#). In fact, energy capacity under construction doubled from [3,078 to 6,350 MW](#) from 2023 to 2024, leading to a dip in 2025 when developers encountered power shortages and permitting or zoning constraints. This kind of strain on existing energy infrastructure is a real concern for builders and community members alike, and the solutions vary widely but depend heavily on state and local legislature.

In Gray’s home state of Kentucky, for example, requirements like tariffs are on the rise to insulate communities from costs associated with data centers. With the consideration of [HB 593](#), “municipal utilities would be prohibited from allocating data center infrastructure costs to their other customers.” So despite some misconceptions, data centers are always responsible for paying their energy bills—not taxpayers. The ripples of their impact is much more up for debate, but especially in states like Kentucky, lawmakers are working to ensure financial responsibility lies in the hands of the center itself.

However, in any region, it’s often in the best interest of the builders to make more environmentally-conscious choices. Builders and developers like Gray choose strategic locations, often near power production, to not only minimize larger community and power grid impact, but also to minimize costs. Particularly in the West, much of that energy is also renewable, and is subject to stringent environmental laws. In areas with



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Project Manager, Gray

less modernized power infrastructure, the increased attention on data centers has brought needed updates and even private investment to [out-of-date distribution transformers](#)—of which about 55% were 33+ years old and “far beyond their expected service life.”

Even so, new creative solutions are constantly being developed to power these vital developments in increasingly sustainable ways. In fact, [one of Google’s cloud computing operations](#) runs exclusively on non-carbon energy about 87% of the time.

As with any project, Gray is committed to the good of the communities we’re building the future of, and data centers are no exception. We work closely along local governments to learn how to best support local infrastructure and stay up-to-date with the most recent legislative boundaries—not only for compliance, but to encourage our partnering businesses to make lasting investments with their developments.

Noise Pollution

One of the most consistent complaints of potential disruptions from data centers is noise. Beyond the initial commotion of construction activity, the sounds traditionally associated with data centers can persist and can sometimes become a nuisance to their neighbors, stemming from things like: cooling and air-handling, chillers and cooling towers, transformers, periodic generator

testing, low tonal frequency from rotating equipment. While decibel limits are often in place, a simple pass/fail decibel number may not capture the full exposure. To truly cut down on noise, good design choices must be implemented, including: industrial adjacency, enclosed mechanical yards, sound walls, and strict nighttime standards.

Fortunately, modern data centers and technological advances—including liquid cooling—mitigate sound, along with smarter site selection. Ultimately, planning and local permitting have the biggest impact on this issue, and more local governments and developers are taking preemptive steps to avoid noise pollution. For example, Virginia’s data center research prompted them to introduce [noise study requirements](#) and sophisticated acoustical modeling into their building permitting processes.

As a leader in the factory and manufacturing site construction space, Gray is familiar with the typical environmental pitfalls of a large-scale development, like smokestacks and chemical runoff, and the best ways to curb those impacts, and while data centers lack these typical high-pollution features and generate less traffic and noise than a traditional industrial space, we maintain the same commitment to engineering innovation and community impact. For data centers specifically, that means good design, good site management, and good permitting compliance become even more important.

Changing the Data Center Narrative

As Gray has entered and grown in the data center market, we share the concerns of the public about environmental and energy impact. Data centers and their demand ultimately exist to serve the people of their communities, so Gray has been encouraged to learn that likeminded efforts to ours have been having real and positive differences.

A [nonpartisan 2024 Virginia audit](#) found that the tax revenue generated by data centers be significant—**up to 31% of total local revenue**.

There’s direct impact beyond tax revenue, too—large centers provide a significant amount of jobs in their community. And not just the short-term construction jobs and smaller pool of permanent center jobs. **Some studies have found that wages rise by 3-4% for both existing workers and new hires for counties receiving their first large data centers, in addition to private employment rising by 4-5% over five to six years—all without a significant increase in local home prices.**

For Gray team members, this impact isn’t hypothetical—it’s their home. “We care about keeping people close to their homes,” Edwards, based in Oregon, talked about his personal connection with his work. “Personally, I’m from Oregon. I love Oregon; it’s a beautiful place. I wanted it to stay a beautiful place.”

This priority on individual and community investment isn’t a strategy Gray adopted when data center work began—it’s been a cornerstone to Gray’s purpose since day one. Ultimately, research shows that the impact of a data center is highly dependent on a lot of factors, but perhaps the largest is the quality of the build. And that’s something Gray never wavers on.

“We’re approaching it the right way. There’s a reason why I’m still with Gray and why I’ve found a home here. And it’s because the whole approach from this company from the ground up is very true. You know, we do care. We care about the local communities. We care about taking care of our people.”

The data center industry may be moving quickly, but the good news is that innovation continues to evolve to meet the moment. In 2026, there’s better legislative guardrails, more creative energy solutions, and stronger local economic investment flipping the script for what it means when a data center moves into town.



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