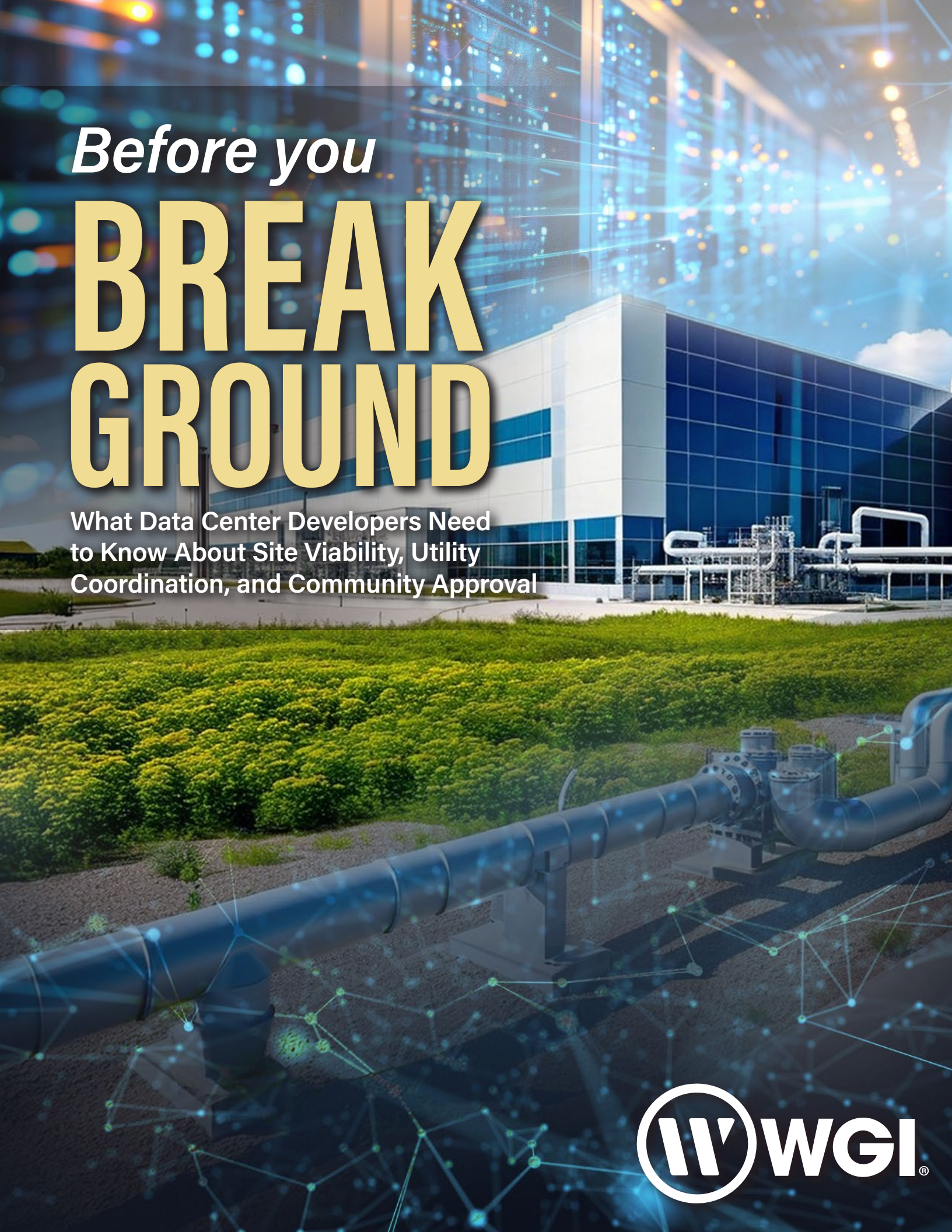

Before you
BREAK
GROUND
What Data Center Developers Need
to Know About Site Viability, Utility
Coordination, and Community Approval
WGI®

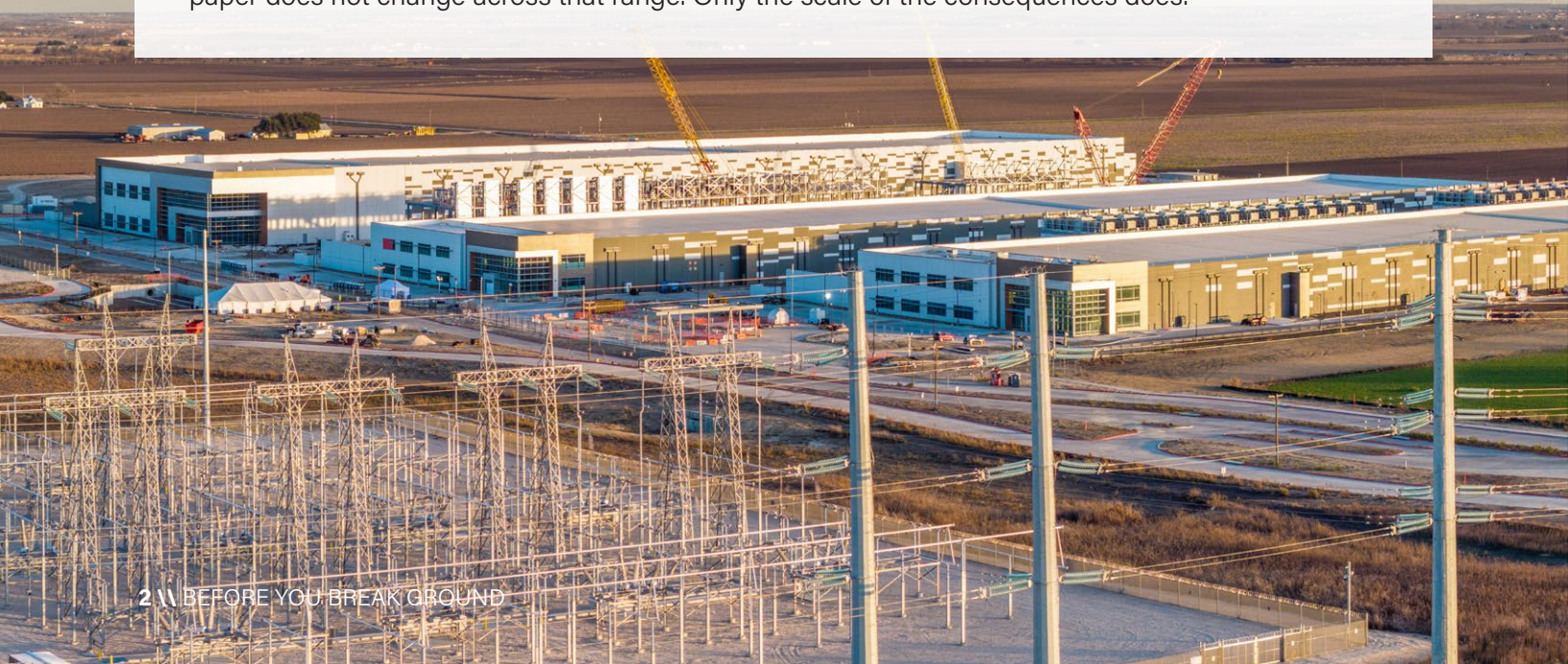
Somewhere in Texas right now, a developer is signing an LOI on a data center site without a clear answer on water. Somewhere else, one just discovered that the interconnection queue for their preferred location runs three years deep and requires a $22 million financial guarantee just to enter. And somewhere else still, a project that checked every engineering box is stalled because the city council member who represents the neighboring subdivision wasn't part of the conversation until the permit notice hit their desk.

None of these are hypothetical. They are the patterns playing out across the most active data center market in the country, and they are the reason this paper exists.

The market context is well-documented. According to McKinsey, global investment in data center infrastructure is projected to reach $7 trillion by 2030 — with approximately $3 trillion attributable to real estate alone. [1] In North America, more than 35 gigawatts of new capacity is currently under construction, a figure that has more than doubled since 2023. [2,3] Vacancy in primary markets has fallen to a record low of 1.6 percent, with 92 percent of new capacity preleased before delivery. [3,4] The pipeline is not speculative. This is capital that has been committed and sites that are being built.

Texas sits at the center of it. The state offers a deregulated power grid, substantial renewable energy capacity, land at scale, favorable tax policy, and geographic positioning that serves both coasts and Latin America simultaneously. It has also become the most instructive market in the country for understanding what large-scale data center development actually requires. The Electric Reliability Council of Texas (ERCOT), the nonprofit organization that manages 90 percent of the state's power grid [6], had received large-load connection requests totaling more than 572 gigawatts as of mid-2025, with over 70 percent of those requests coming from data centers. [8,9] That figure represents more than five times the state's current total generation capacity, and it has made Texas the most advanced proving ground in the country for the grid, water, and community challenges every high-growth data center market will eventually face.

This paper is not for the hyperscalers. Amazon, Google, and Microsoft have built entire internal teams around these problems. It is for the developers, design-build contractors, and corporate real estate programs entering this space who need a clear-eyed picture of what they are walking into before they write a check or sign a lease. The data center market spans gigawatt-scale hyperscale campuses down to 5–10 megawatt boutique enterprise facilities. The nature of the problems described in this paper does not change across that range. Only the scale of the consequences does.



THE FOUR VARIABLES THAT MAKE OR BREAK A SITE

A perfectly located parcel with the right zoning, the right price, and good access can still be a fundamentally unviable data center site. That is the first thing most developers entering this space learn the hard way.

Site viability is determined by four variables that interact with each other and must be assessed together, early, before any financial commitment is made. Most first-time participants in this market underestimate at least two of them. The firms that consistently move projects forward on schedule treat all four as equal priorities from day one.

Power: Interconnection is not a formality.

Every data center draws power that dwarfs almost any other single facility, from 5 megawatts for a modest enterprise deployment to 500 megawatts or more for a hyperscale campus. Getting that power to the site requires navigating a grid interconnection process that is multi-year, financially intensive, and carries no guarantee of outcome.

In Texas, any load request of 75 megawatts or more triggers a formal Large Load Interconnection Study (LLIS) process through ERCOT, established under Senate Bill 6. [7] For many transmission partners, even uses from 5–75 MW require unique internal planning. The study exists because a single large user drawing power from the grid creates ripple effects that can travel hundreds of miles along the transmission network, stressing infrastructure the developer has never seen. Those effects must be understood and the cost of addressing them assigned before the connection is authorized.

The type of utility involved shapes the process from the start. In San Antonio and Austin, developers negotiate with municipally owned utilities — CPS Energy and Austin Energy — which operate on their own timelines and have different processes for large-load requests. In Houston, Dallas, and West Texas, developers deal with deregulated transmission providers like AEP, Oncor, and others. These are fundamentally different relationships, and a developer who does not know which environment they are entering before their first conversation is already behind.

One question belongs in the earliest stages: is there any intent to develop behind-the-meter generation — on-site gas generation, solar, battery storage, or microgrid capacity — that could offset the grid interconnection request? Roughly 90 percent of customers do not pursue this path, and their full load enters the formal process. For those who do, reducing the interconnection request meaningfully changes the financial exposure that follows.

An emerging alternative pathway is worth understanding: the "powered land" model, in which a developer or real estate entity acquires land, assembles entitlements, and advances utility negotiations before bringing the site to market as a pre-entitled, shovel-ready package for a downstream buyer. For developers who encounter these opportunities, the appeal is straightforward — significant lead time and process risk have theoretically been absorbed by someone else. The caution is equally important. In practice, how far a powered land site has actually progressed through utility capacity confirmation, interconnection agreements, and formal approvals varies considerably. WGI has encountered sites marketed as powered where, on closer examination, nothing substantive had been negotiated. Buyers should treat powered land claims as a starting point for due diligence, not a substitute for it. Every variable described in this paper — power, water, community, and government affairs — still requires independent verification regardless of what a broker's marketing materials represent.

Water: The harder constraint.

The cooling requirements of a modern data center are significant and water-intensive. A large facility can consume millions of gallons annually. Water availability cannot be assumed and should be prioritized before a site has been committed.

This is the variable that surprises developers most, and the one that is genuinely harder to solve than the power problem. Generation capacity can be added to a grid or built behind the meter. Water supply cannot be manufactured — it must be secured through existing municipal infrastructure, and many municipalities simply do not have the volume these facilities require.

What makes this more complicated is that the most obvious backup strategies compound the problem. Most conventional power generation at scale also requires water. A site with a water problem cannot easily compensate by generating its own power. The two constraints are linked in ways that become clear only after the fact, unless someone is looking for the linkage early.

Cooling technology choices have a direct effect on water demand. Traditional evaporative and air-cooled systems are the most water-intensive. Direct liquid cooling and immersion cooling dramatically reduce consumption and are commercially deployed, in some cases required. Current high-density GPU architectures specify direct-to-chip liquid cooling as a hardware requirement. Developers designing facilities around high-density AI compute need to account for this from the start.

Groundwater is largely unavailable at the volumes a major data center requires. Water conservation districts govern access to nearly every significant aquifer in the country, and permitted extraction limits often fall far short of what these facilities need. The most viable path in most Texas markets runs through reclaimed water. A site positioned near both a large transmission line and a municipal wastewater treatment plant can partner with the utility to produce reclaimed water at quality suitable for industrial use — then enter a long-term purchase agreement that creates a reliable supply. Upgrade costs are often manageable within project budgets and timelines, and the arrangement creates a new long-term revenue stream for the municipality. It is a story that converts a potential objection into a community asset.
Only about 10 percent of Texas cities currently have reclaimed water infrastructure in place [11] — and nationally, fewer than 150 utilities use reclaimed water as an intentional resource. [12] In most markets, this conversation has not happened yet, and the developer who initiates it holds the advantage.

Community: Opposition is local, but it is real.

What exists in community after community is a growing sophistication among residents and elected officials about what these projects mean for local infrastructure, water systems, and quality of life — and a growing willingness to use the entitlement process to demand answers.

Sound attenuation is a clear example of how quickly community concerns evolve. A few years ago, noise rarely came up in data center entitlement proceedings. It now surfaces on nearly every engagement. Generators, cooling towers, and building mechanical systems running continuously at data center scale produce noise that affects surrounding residential neighborhoods, university campuses, and agricultural communities. The mitigation solutions — acoustic landscaping, sound walls, building envelope design that redirects exhaust upward — are well-established and not prohibitively expensive. They have to be designed in. A developer who encounters a noise objection during a public hearing is solving a design problem under the worst possible conditions.

Government affairs: The variable that can overrule all the others.

A developer can complete every interconnection study, secure every water agreement, and design in every mitigation measure, and still have a project stopped by a single local or state official who was not in the conversation early enough.

This is not a rhetorical point. Politics is not always data-driven. A developer can check every technical box and lose the political one, and the political loss is final in a way that an engineering setback is not. Policymakers are becoming more sophisticated about data center development in both directions: supporters are better informed, and so are opponents. Treating government affairs as a soft add-on rather than a core project discipline is one of the most consistent patterns among projects that stall.

INSIDE THE LLIS/BATCH STUDY PROCESS: A DEVELOPER'S FIELD GUIDE

Texas's LLIS process is the most formally developed large-load interconnection framework in the country. Understanding it offers the clearest available picture of what developers will encounter, in some form, in any high-demand grid region. Every grid operator managing a surge in large-load requests is working toward similar tracking and intake management. Texas simply got there first.

As of mid-2025, ERCOT was handling grid connection requests totaling more than 572 gigawatts from large power users — more than five times the state's current generation capacity, with the vast majority coming from data centers. [8,9] At that volume, evaluating projects individually is no longer workable. The LLIS batch process is how ERCOT brings structure and financial seriousness to a queue that would otherwise be unmanageable. It is a rigorous process designed to protect grid reliability while creating a credible path forward for developers who are ready to build.

ERCOT LARGE LOAD INTERCONNECTION STUDY (LLIS) Developer Process

Site and Zoning Check

Stage 1
Utility Pre-Engagement

Ask about behind-the-meter generation (solar, battery, microgrid) to offset interconnection request.

Load Request
>= 75 MW

NO → **Standard Utility Process**

YES → *LLIS required*

Stage 2
Intermediate Agreement

Financial security: $50,000 per MW requested — held in escrow for full process duration (3–5 years).

Stage 3
LLIS Batch Study Process

Timeline: multi-year | Batch 0 in progress as of early 2026 — no entity has completed this stage.

WGI ACTIVE EXPERIENCE
To Date: Batch 0 ongoing

Interconnection Agreement Executed

UTILITY DELIVERY TO SITE

WATER TRACK

Runs in parallel from project outset.

Step 0
Estimate Water Needs

Step 1
Identify Municipal Solutions

Step 1a
No Municipal Supply Available

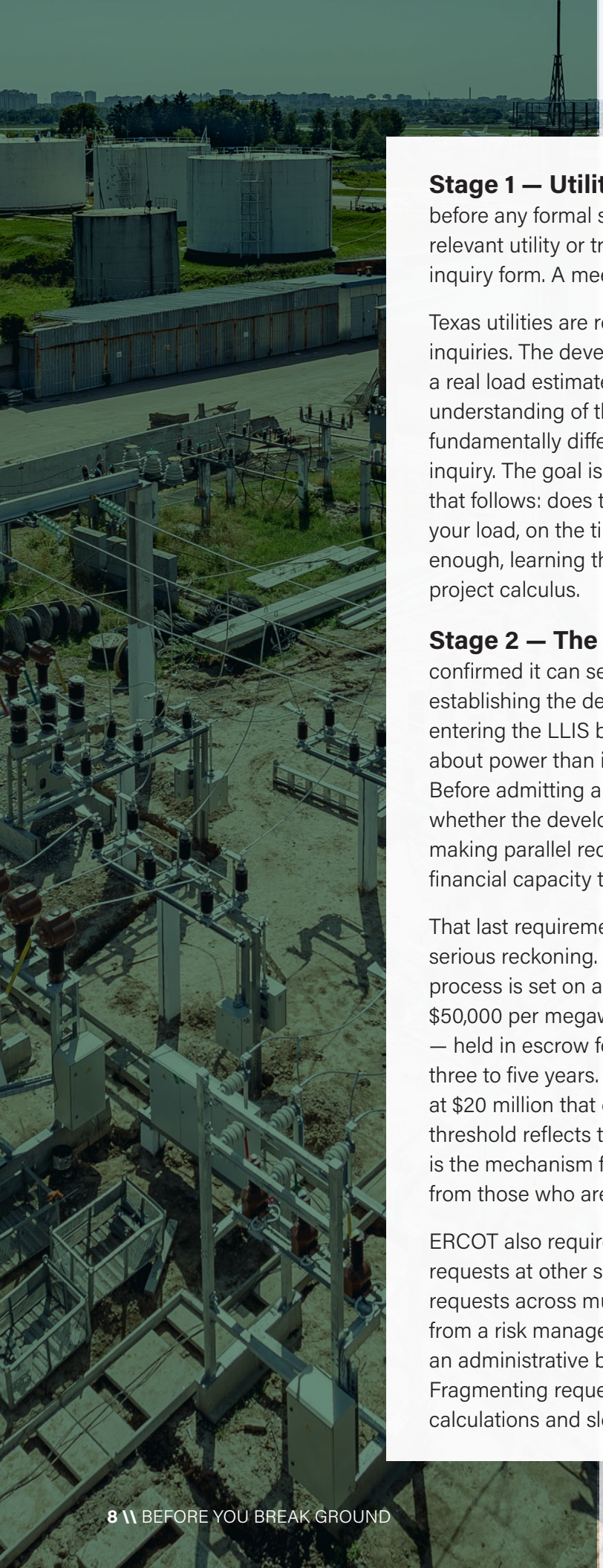
Step 2
Water Availability Study

Step 2a
Creative Solutions

Step 3
Partnership Agreement

Step 4
Confirm Water Source

This flowchart is for informational purposes only, based on WGI's experience navigating the LLIS process as of March 2026. ERCOT's requirements, process, and costs are subject to change without notice. This document does not constitute legal or regulatory advice and provides no guarantee of any specific outcome. Consult current ERCOT documentation before proceeding.



Stage 1 — Utility pre-engagement. The process begins before any formal step is taken, with a face-to-face meeting with the relevant utility or transmission provider. Not an email. Not an online inquiry form. A meeting.

Texas utilities are receiving an extraordinary volume of data center inquiries. The development team that shows up prepared — with a real load estimate, a clear project timeline, and a demonstrated understanding of the interconnection environment — gets a fundamentally different response than the one that submits a generic inquiry. The goal is to answer one question that determines everything that follows: does this utility have the generation capacity to serve your load, on the timeline you need? If the answer is no, or not soon enough, learning that before committing to a site changes the entire project calculus.

Stage 2 — The intermediate agreement. Once a utility has confirmed it can serve the load, the next step is a formal document establishing the developer and transmission provider as partners entering the LLIS batch process together. This agreement is less about power than it is about financial and administrative qualification. Before admitting a request to the batch study, ERCOT needs to know whether the developer has actual control of the land, whether they are making parallel requests on multiple sites, and whether they have the financial capacity to see the process through.

That last requirement is where many projects encounter their first serious reckoning. The financial security requirement for the LLIS process is set on a per-megawatt basis — under 2026 ERCOT rules, $50,000 per megawatt, subject to revision as the framework matures [7] — held in escrow for the full duration of the batch process, potentially three to five years. A developer requesting 400 megawatts is looking at $20 million that cannot be deployed while the study runs. This threshold reflects the reality of ERCOT's queue: financial commitment is the mechanism for separating developers who are ready to build from those who are exploring their options.

ERCOT also requires a legal affidavit disclosing any concurrent requests at other sites. Developers running parallel interconnection requests across multiple parcels — a strategy that feels rational from a risk management standpoint — are finding that it becomes an administrative barrier and is operationally counterproductive. Fragmenting requests across locations complicates ERCOT's planning calculations and slows the process for everyone in the queue.

Stage 3 — The LLIS batch study. After the intermediate agreement is executed, ERCOT conducts the technical analysis: a study of what grid upgrades are required to accommodate the new load, from local transmission infrastructure at the site to potential constraints hundreds of miles away along the generation-to-load path. The cost of any required upgrades is assigned to the developer and can range from manageable to material, depending on site location and what lies upstream.

As of early 2026, the LLIS batch process is in its first active cycle — what ERCOT is calling Batch 0. No entity has yet completed the full process. [5] ERCOT has been forthright about this: it is a new framework responding to a new scale of demand, and it will continue to be refined as the first batch works through the system. WGI currently has clients navigating this process. Our teams are attending ERCOT's biweekly forums, maintaining direct dialogue with transmission partners, and working alongside clients in real time. The most important asset a developer can bring to this environment is a partner who is in continuous dialogue as the process evolves.

Water coordination runs in parallel, not in sequence. While power interconnection typically carries the longest lead time, water coordination demands the same early discipline and cannot wait until power is resolved. The timeline for completing a reclaimed water agreement — from initial municipal conversation through engineering, regulatory approvals, and a long-term purchase agreement — is measured in years. Like the electrical load process, developing a water resource to serve the site can require significant offsite infrastructure, with design, permitting, and construction timelines that affect overall project budgets and schedules. Developers who treat water as a second-phase problem routinely discover that the first phase never ends cleanly enough to start the second.

FOUR COMMUNITY AND POLITICAL CONCERNS — AND HOW TO GET AHEAD OF EACH ONE

The communities surrounding data center projects are not passive. They are better informed than they were three years ago, more organized when they feel bypassed, and entirely capable of turning a straightforward approval process into a multi-year fight. The developers who navigate this consistently well are not the ones with the most polished community relations messaging. They are the ones who started the conversation before there was anything to object to.

Water use. This is where the most direct policy attention is landing, and where a developer's approach on day one has the largest long-term effect. The questions communities and elected officials are asking are specific: How much water will the facility consume? Where does it come from? What happens to it after cooling? San Antonio is currently evaluating regulations that would restrict how water mixed with cooling processes can be discharged — a signal of where municipal policy is heading that other cities will watch closely.

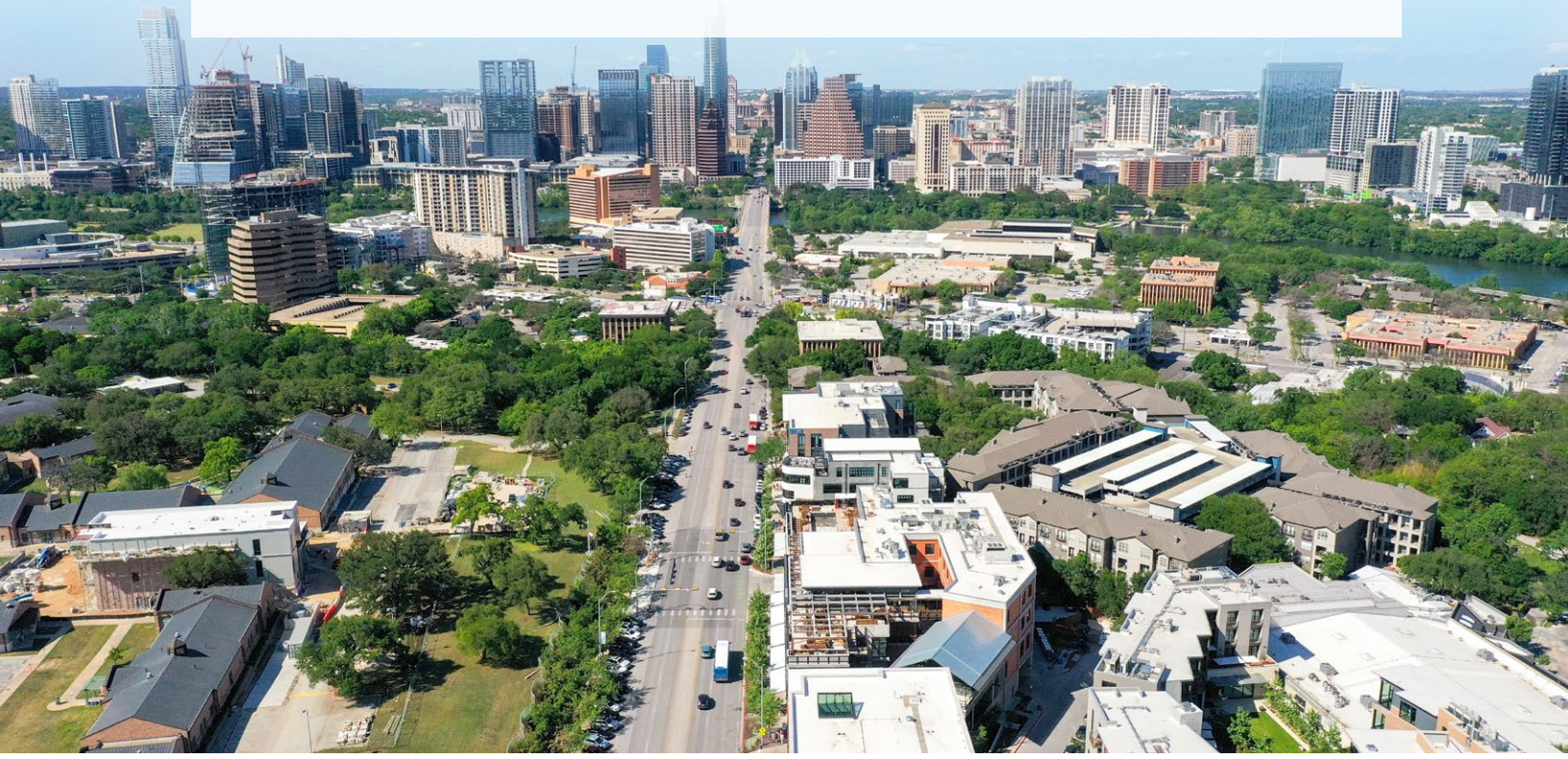
The developer who arrives at the first community conversation with a reclaimed water solution already structured is in a fundamentally stronger position than the developer who says water sourcing will be addressed in the engineering phase. The former is offering something tangible: we are not going to draw on your drinking water supply, we are going to work with existing wastewater infrastructure to create a new resource, and the city will collect revenue from that relationship for decades.

Noise. Sound attenuation concerns now surface on nearly every project. The established mitigation solutions — acoustic landscaping, sound walls, building envelope design that directs exhaust upward — are cost-effective and well-understood. The challenge is entirely about when they enter the design process. Addressing noise in the site plan is inexpensive. Addressing it during a contentious public hearing is not.

Economic tradeoffs. Data centers do not generate the kind of permanent employment that communities associate with large industrial projects. Construction phases are substantial, but full-time operations staff for a major facility can be limited in number. The more compelling story is the tax base impact. A billion-dollar facility placed on 200–300 acres that previously generated almost no property tax revenue creates a permanent, transformational change in the local tax base. Public Improvement Districts and Tax Increment Financing structures can direct a defined portion of that new increment toward housing, parks, roads, or schools. Developers who have that conversation early — before positions have hardened — routinely find that it changes the character of every conversation that follows.

Precedent. A local official who is personally supportive of a project will sometimes hesitate when they realize that approving it establishes the terms under which every similar future request will be evaluated. The dynamic is playing out in Florida currently in a way that closely mirrors what happened in Texas: a project approaches approval, state-level attention shifts toward what the precedent means broadly, and a routine entitlement process becomes a policy deliberation. Developers who navigate this most effectively have partners who have been in the room when these policy conversations happen and can help position a project as a model worth following rather than a threshold worth limiting.

On a recent data center project in Texas, WGI initiated proactive outreach to all neighboring property owners before the entitlement process began. No organized opposition emerged. No negative feedback was received. The project moved through entitlement on schedule. Developers who make the first call — who ask the council member what good looks like before filing anything — rarely face the resistance that builds when a community learns about a project from official notice rather than from the people building it.



BEFORE YOU SIGN ANYTHING: EIGHT QUESTIONS WORTH ASKING

Everything described in this paper rewards early engagement. The developers who achieve the best timelines are, almost without exception, the ones who answered these questions before they were financially committed to a site.

1. **Have you had a face-to-face meeting with the relevant transmission provider or municipal utility and confirmed they have the generation capacity to serve your load estimate on your timeline?**
2. **Do you know whether your project triggers the formal LLIS process in Texas — or an analogous large-load process in your target grid region — and have you modeled the financial security exposure under current rules before committing to the site?**
3. **What is the complete water picture? Municipal supply capacity, groundwater access restrictions, and reclaimed water infrastructure all need to be assessed before an LOI is signed. Is there a wastewater treatment plant within viable distance, and has a formal water availability assessment been completed?**
4. **What cooling technology does the project specify, and what does that choice mean for water consumption? Has direct liquid cooling been evaluated as both a water reduction strategy and a potential hardware requirement for the compute systems being deployed?**
5. **Has a sound analysis been completed relative to surrounding land uses, and are mitigation measures incorporated into the site plan rather than deferred to a later design phase?**
6. **Who are the local and state political stakeholders with jurisdiction over this project, and has an early informal conversation been initiated before the formal entitlement process begins?**
7. **Does the project team include professionals with experience navigating the political and governmental environment in the target market — not just engineering and design credentials?**
8. **Has the developer identified how the tax base impact of this project can be structured as a community benefit, before opposition forms around a different story?**

HOW WGI CAN HELP

The challenges described in this paper are not theoretical for our teams. WGI currently has clients actively navigating the LLIS batch process. We are in it alongside them, reading every update as it is issued, maintaining direct dialogue with transmission partners, and translating a regulatory environment that changes faster than any reference document can capture. That is not something we can claim from a distance. It comes from being present in the process as it unfolds.

That presence matters because of integration. WGI's Civil and Buildings divisions bring together the disciplines data center development requires: civil engineering, land planning and entitlements, MEP and electrical design, utility coordination, and community outreach and permitting. In our experience, the most expensive problems in this space emerge after disciplines that should have been coordinating have been operating in separate lanes. When site selection, utility coordination, cooling design, and community engagement share a table from day one, problems get identified before they become commitments.

We also maintain specific vendor and manufacturer relationships in cooling and power generation that allow us to match solutions to site constraints. And we include professionals experienced in navigating the political and governmental dimensions of development, because a project that handles the technical work without handling the political work does not cross the finish line.

If you are working through any part of this process — from initial site screening to a project that has stalled — we are ready to engage wherever you are.

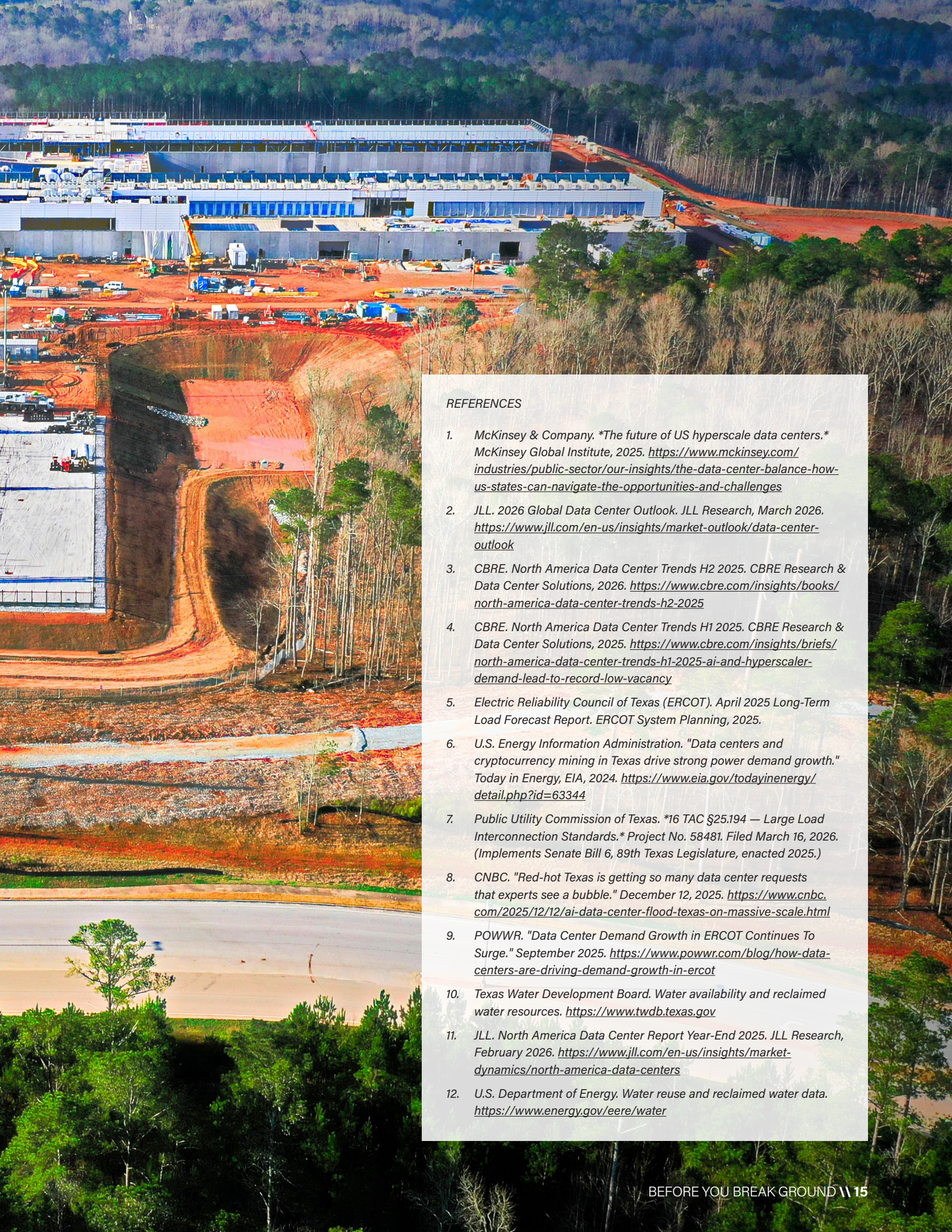
CONCLUSION

The data center buildout will reshape the energy and land development landscape of every high-growth market in America. The question for developers entering this space is not whether the opportunity is real. It is whether they are ready for what the opportunity actually requires.

Power, water, community, and political engagement are not problems to be solved after the site is selected. They are the criteria by which a site should be evaluated in the first place. Every one of them rewards early attention disproportionately and becomes exponentially more expensive when encountered for the first time during entitlement.

Texas is the most instructive market in the country for how this development looks when approached seriously, and what happens when it is not. The interconnection process is rigorous, the water constraints are real, and the communities asking questions deserve substantive answers. The developers who bring that seriousness to the process early are the ones who move fastest.

The rest are still figuring out what they signed up for.



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LET'S TALK.

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