

DCR Signals

Issue February 2026, Volume 1

DEEP DIVE

“In this cycle, land is no longer a primary asset. It’s a derivative...”

*Land HO!
Execution
Over Optimism*

DATA CENTER REVIEWS



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DEEP DIVE

Issue February 2026, Volume 1

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DCR SIGNALS



SIGNAL-DRIVEN
INSIGHT

INDEPENDENT
INTELLIGENCE

INFRASTRUCTURE
CLARITY



LAND IS BECOMING THE WEAKEST LINK IN THE DATA CENTER BUILD CYCLE

NOTE: Items tagged Research Insights reflect synthesized conclusions from peer-reviewed studies and regulatory analyses listed below, not direct quotations unless otherwise indicated.

TRYING TO PRE-BUY THE FUTURE

AI

-driven data center demand is accelerating, but investment behavior is getting ahead of reality.

Not because the market isn't real. It is.

Because the inputs that used to anchor confidence, customer forecasting, power availability, permitting certainty, and bankable contract structures, are getting more volatile at the exact moment capital is leaning harder on precision modeling.

That mismatch is the story.

In a session at #PTC26 in Honolulu, moderator Nicola Hayes led the session *Infrastructure Frontiers: Building Data Centers in the Next Billion Markets*, with panelists Scott Peterson, CEO & Managing Director at Global Compute Infrastructure, and Manoj Paul, Managing Director, India, Equinix. In the discussion, one theme kept resurfacing: the industry is modeling certainty where uncertainty is now structural.

Ten-year demand curves, market-share assumptions, and back-solved IRRs are being treated as if they're physics. But the real world is behaving more like weather.

And the biggest weather system moving in right now isn't "AI demand."

It's power.

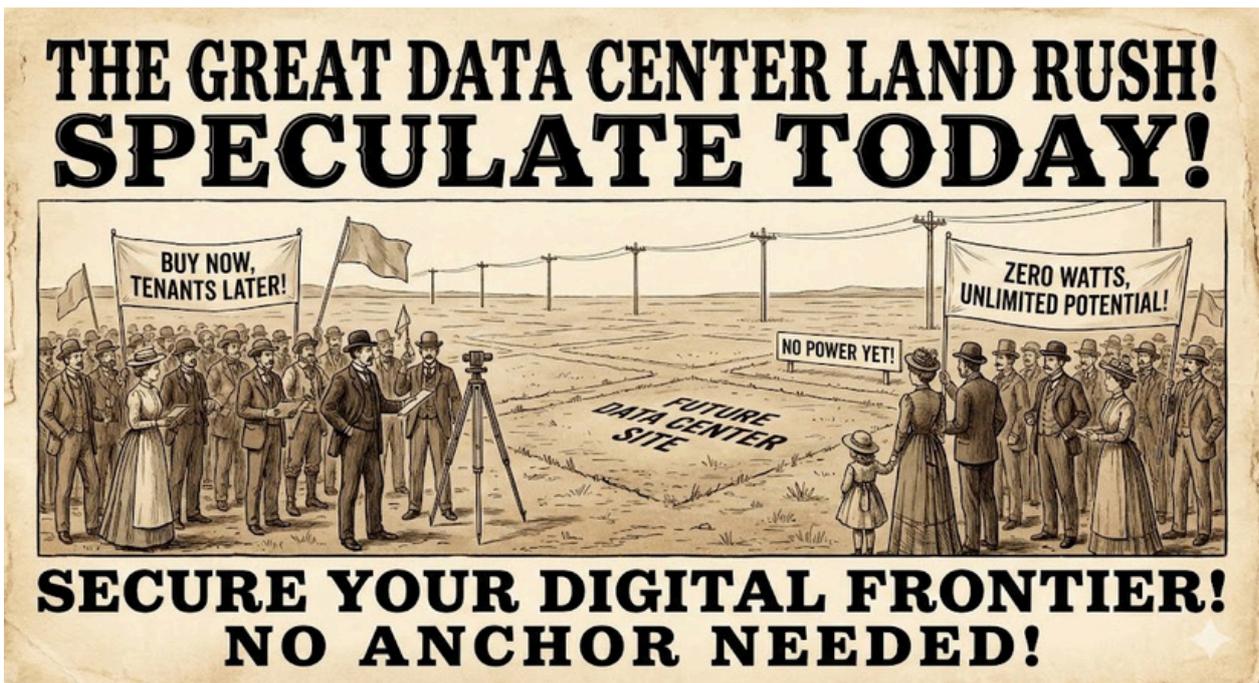
Global electricity demand tied to data centers is climbing fast enough that major institutions are now publishing scenarios that would have

electricity demand growth.

In the U.S., the Department of Energy's LBNL-backed analysis estimates data center load growth has tripled over the past decade and could double or triple by 2028.

That is real demand pressure.

But the session wasn't a victory lap. It was a warning about what happens when capital tries to "pre-buy the future" faster than infrastructure can deliver it.



have looked extreme a few years ago. The International Energy Agency projects data center electricity consumption could roughly double to ~945 TWh by 2030 in its base case, with growth around 15% per year from 2024 to 2030, far outpacing overall

WHAT'S BREAKING DOWN

The speakers challenged a pattern that has become normal in the last 18 months: investors commissioning long-range demand forecasts and then treating the output as if it's destiny — as Scott Peterson said, "down to five decimal places."

Demand. Share. IRR. Done.

The problem isn't intelligence. It's volatility.

Even the customers, hyperscalers, platforms, enterprise buyers, are often poor forecasters of their own capacity needs, not because they're unsophisticated, but because the world shifts faster than their planning cycles. The session highlighted what many operators have quietly learned the hard way: what looked like a "never" market can become a "must" market overnight when power constraints change the rules.

That isn't just a narrative arc. It's now showing up in the grid operator data and regulatory posture.

PJM, the largest grid operator in the U.S., has been forced to update its long-range outlook under the weight of data-center-driven load growth. In its most recent long-term forecast, PJM describes significant long-term load growth, with explicit adjustments in multiple zones tied to data center load changes.

At the same time, PJM has also signaled a more disciplined near-term posture, tightening assumptions and trimming parts of

the near-term load forecast even while long-term growth continues to climb. That tension matters: it's evidence that even the grid operator is wrestling with the same core issue discussed in the session: forecasting error has consequences.

If you're a developer, a lender, or a landholder, this is where the story shifts from "opportunity" to "risk." Because when forecasts drift from reality, the bill still comes due.

THE CAPITAL SHIFT: FROM UNDERWRITING TO HERDING

Another session thread was behavioral, not technical.

Investors who historically demanded long-term certainty are now following momentum into "AI-adjacent" plays; sometimes without fully underwriting the execution risk that separates a good site from a stranded asset.

You can see echoes of that shift across the market:

- In North America, demand continues to outstrip supply, driving vacancy to record lows in primary markets and pushing prices upward.

- JLL has described an availability crisis and projected enormous build activity over the next five years, while also emphasizing the constraints that make delivery uneven.
- In parallel, pricing pressure and contracting dynamics are evolving quickly. JLL has noted dramatic shifts in pricing and lease terms as landlords prioritize large absorbers of capacity.

The temptation, especially for capital that needs to deploy, is to treat “demand headline” as a substitute for “project certainty.”

That’s where the herd forms.

And herds, in infrastructure markets, tend to trample the same thin ice: land, power, and time.

QUOTABLE

“America’s AI boom is pushing the nation’s largest power-grid operator to the brink of a supply crisis... the grid’s capacity is in danger of maxing out during periods of high demand.”

(Wall Street Journal, Industry Coverage)

WHERE THE RISK IS CONCENTRATING: LAND SPECULATION

The clearest warning signal discussed in the session was land speculation, and not in the abstract, but as a repeated pattern.

Land is being secured near perceived data center corridors. Power discussions begin optimistically. Then the numbers get real: interconnection requirements, utility upgrade obligations, deposits, timelines, and take-or-pay exposure. At that point, outcomes become binary.

If a hyperscale or anchor tenant doesn’t materialize, the downside can be severe, and often, unrecoverable.

This is not theoretical.

Across key U.S. markets, permitting and zoning frameworks are tightening in ways that change the risk profile of land-first strategies. Loudoun County, the most iconic example of “data center gravity,” eliminated by-right approvals for data centers in 2025, shifting projects into a special exception process with public hearings and more stringent review.



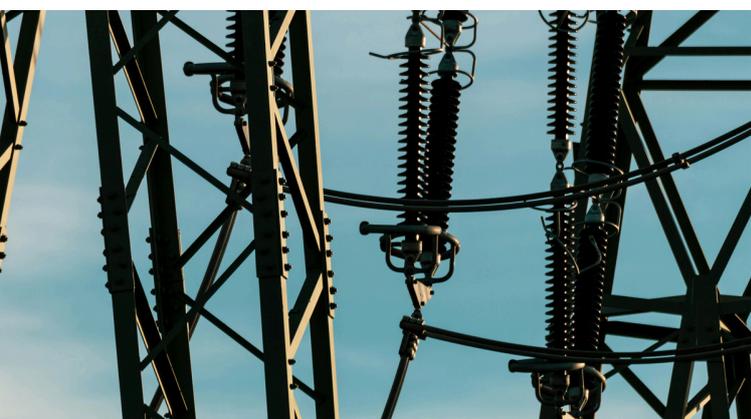
Industry coverage has framed this as a turning point: the combination of tighter approvals and power constraints is pushing developers to look beyond legacy hot zones toward counties and regions with more flexibility, but also, often, less proven ecosystem depth.

That migration creates two simultaneous realities:

1. opportunity in emerging corridors, and
2. a perfect environment for land speculation, because “maybe next” becomes easy to sell.

To be absolutely clear: the session’s warning wasn’t anti-development. It was anti-assumption.

Because land doesn’t earn returns. Projects do. And projects don’t move at the speed of optimism.



THE POWER SHOCK: AVAILABILITY BEATS PRICE (AND IT’S NOT CLOSE)

One line from the session deserves to be a headline: availability of power trumps the cost of power.

That is increasingly supported by the economics of AI infrastructure.

When cabinet-level spend can involve millions of dollars of GPU infrastructure, shaving a cent or two per kWh isn’t what drives site selection. The constraint is whether power can be delivered AND delivered with timelines that match customer urgency.

RESEARCH INSIGHT

Execution risk, rather than demand risk, is now the dominant variable in underwriting new digital infrastructure projects.

(Moody’s Investor Service)

The grid reality underneath this is escalating quickly.

The U.S. Energy Information Administration has projected record U.S. electricity consumption in 2026 and 2027 and explicitly cites data centers supporting AI (and crypto) as a key driver.



The grid reality underneath this is escalating quickly.

- The U.S. Energy Information Administration has projected record U.S. electricity consumption in 2026 and 2027 and explicitly cites data centers supporting AI (and crypto) as a key driver.
- PJM is contending with load growth that is reshaping how capacity and reliability are discussed, not just in market commentary but in active policy proposals.

- Even large tech players are publicly responding to community concern about utility costs and resource impact, including commitments to cover more of the associated burden and increase transparency.

What matters in DCR terms is not the

politics around those headlines, but the directional truth they reveal:

- The era of “assume the grid will catch up” is ending.
- Power is no longer a background variable. It’s the front gate.

And that changes how sites should be valued.

INTERCONNECTION REALITY: THE CHECK YOU DIDN'T MODEL

The session’s most visceral moment was the description of landholders discovering that “power approval” often comes with a very real ask: large deposits, major upgrade

responsibility, and risk transfer.

Recent market commentary underscores this dynamic.

In PJM-related interconnection processes, developers have faced deposits ranging from negligible amounts to tens of millions of dollars, depending on the project and upgrade requirements.

Separately, regulators are moving to clarify rules around co-located generation and load; precisely because large loads (including data centers) are now forcing policy questions about speed-to-power and cost allocation. FERC has ordered PJM to revise tariff language and procedures to clarify interconnection and service options for co-located arrangements, with near-term filing deadlines.

Translation: the system is being rewritten in real time.

That's not a reason to freeze. It's a reason to stop pretending yesterday's playbook automatically works.

Because "we'll get power" is not a strategy.

It's a question.

And in this environment, the wrong answer can bankrupt a land thesis.

QUOTABLE

"Leading market research from KKR underscores that power, land, interconnection, and permitting are the structural bottlenecks shaping data center expansion today — and that they materially outweigh other factors in execution risk."

(KKR Global Infrastructure)

DEMAND IS REAL — BUT THE CONTRACT REALITY IS CHANGING

The session also pushed back on one of the most persistent simplifications in the market: the idea that "hyperscale demand" automatically translates into stable long-duration underwriting.

Two things are happening simultaneously:

- demand continues to grow aggressively, and
- the structures underneath that demand are shifting.

JLL has described a market where pricing dynamics and lease terms have moved materially compared to prior norms, and where landlords are increasingly optimizing for large absorbers of capacity.

Meanwhile, the compute layer itself is becoming a new source of risk.

In AI infrastructure, the depreciation and lifecycle dynamics of GPUs are a very different animal than traditional enterprise gear. While accounting assumptions can be longer, a growing body of analysis argues that practical GPU useful life in AI contexts can be shorter than many models assume.

This matters because it creates a mismatch:

- Real estate and power infrastructure are long-lived, long-payback assets.
- AI compute cycles can be shorter and more volatile.

When those timelines mismatch, the financing stack becomes fragile.

Even if demand stays high, the path from “demand exists” to “this specific project is bankable” still runs through contract structure, tenant credit, and timing.

And timing is where projects fail.

THE FORECASTING TRAP: WHEN THE PUBLIC PAYS FOR FORECAST ERROR

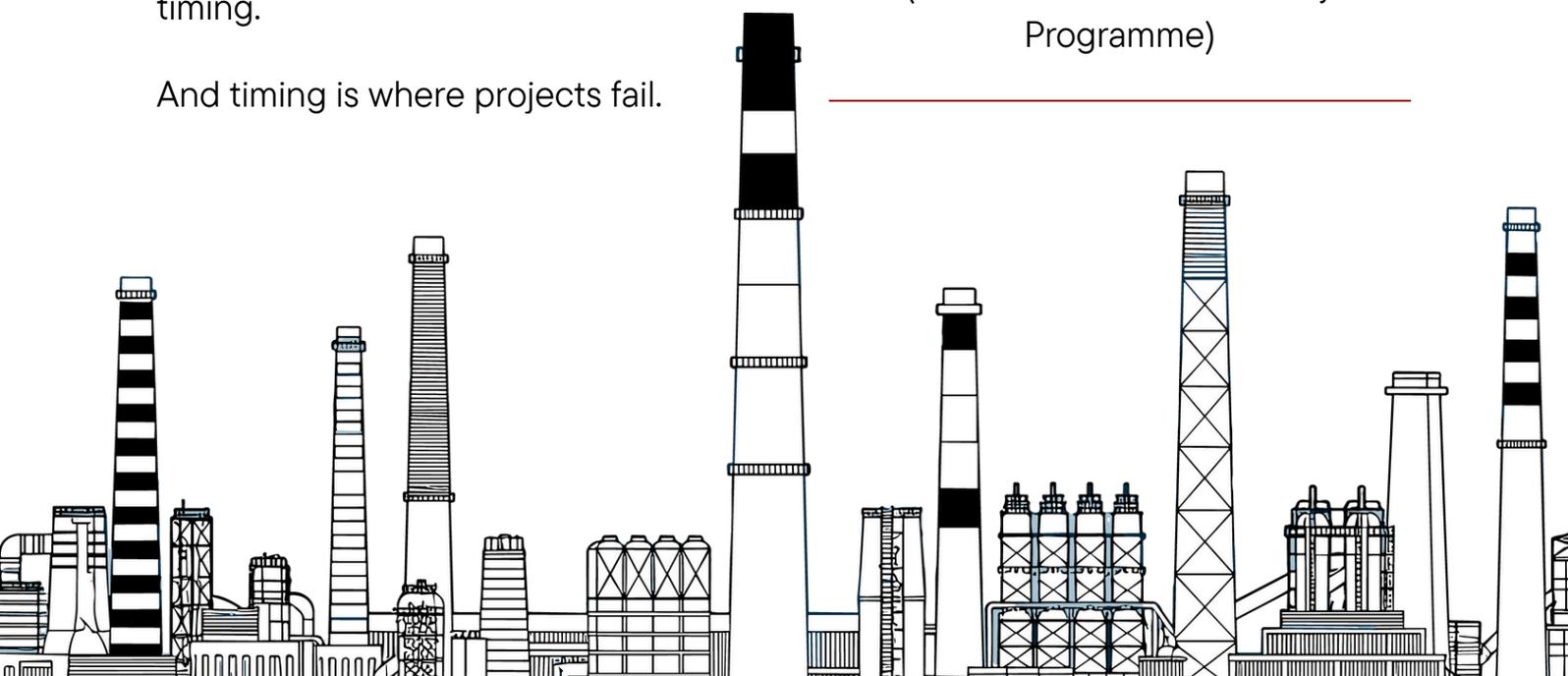
One of the most important and least discussed consequences of forecasting error is who absorbs the cost when forecasts overshoot.

Recent reporting has highlighted concerns that when grid operators procure capacity based on aggressive load forecasts, ratepayers can bear much of the risk if the load doesn't materialize on schedule.

RESEARCH INSIGHT

Forecast-driven over-procurement of infrastructure capacity can transfer financial risk to the public if demand materializes more slowly than projected.

(OECD Infrastructure Policy Programme)



This matters for the market, because it triggers response:

- communities push back,
- regulators adjust rules,
- utilities shift cost allocation frameworks,
- and developers face new expectations: “bring your own power,” fund upgrades, accept interruptible service, or sign longer commitments.

You don’t have to take a stance on policy to see the structural signal: the market is moving toward making the marginal load pay the marginal cost.

And that is exactly the point the session surfaced through lived experience.

WHY LAND GETS HIT FIRST

If the cycle turns, the session argued it won’t start with “data centers.”

It will start with land.

Here’s why:

- Land is easiest to buy on a story

It’s cheap relative to a full build, and it feels like a call option on the future.

- Land is hardest to unwind

If power doesn’t arrive, permitting tightens, or tenants shift markets, you can’t “redeploy” land. You can only discount it.

- The real costs arrive after you’ve committed

Interconnection deposits, upgrade obligations, timelines, and take-or-pay structures don’t always show up until later in the process, and by then, you’re already exposed.

- Capital can move; land cannot

This was one of the most important session insights: global capital can chase “more deterministic returns” in other markets. Your land in one corridor can’t.

So land becomes the first place where narrative meets reality.

And when those collide, the repricing happens quietly: contract cancellations, assignment attempts, distressed listings, and “strategic pivots” that are really exits.

RESEARCH INSIGHT

In Silicon Valley, newly completed data centers — each capable of tens of megawatts — are sitting idle for years because grid upgrades lag behind the build. That’s the real consequence of treating power as a secondary planning variable.

(Tom’s Hardware)

THE NEW RISK MATRIX: WHAT SMART CAPITAL IS ACTUALLY UNDERWRITING

The session's best contribution wasn't fear. It was clarity: the market needs a new underwriting lens.

In today's cycle, a serious risk matrix is increasingly built around:

- Power certainty (not just “interest” from a utility, but executed path to delivery)
- Interconnection responsibility (upgrade scope, deposits, timeline realism)
- Permitting posture (by-right vs discretionary vs contested)
- Customer contracting (bankability, duration, take-or-pay terms)
- Compute volatility (depreciation and refresh-cycle risk in AI-heavy builds)
- Market liquidity (can you exit if assumptions break?)
- Community and cost allocation (who pays when forecasts miss?)

This is the shift: from “growth narrative” to “execution reality.”

WHAT BUYERS, INVESTORS, AND LANDHOLDERS SHOULD ASK NEXT

This is where DCR turns insight into value. If you're evaluating a land-first or power-first data center thesis,



these questions are not optional:

1. What is the committed interconnection date — not the conceptual timeline?
2. What upgrades are required, what do they cost, and who pays?
3. What deposits or security are required — and when are they due?
4. What happens if the tenant doesn't show up on schedule? (take-or-pay, penalties, stranded upgrades)
5. What changed recently in zoning or approvals — and what could change next?
6. What portion of the underwriting depends on short-cycle compute economics?

If those answers aren't crisp, you don't have a “site.” You have a story

THE TAKEAWAY

AI demand is real. Infrastructure will continue to be built.

But this session made something uncomfortably clear: momentum is being mistaken for certainty.

The biggest risk in the current cycle isn't underbuilding data centers.

It's over-speculating on land and power before demand is proven, and before the grid, permitting environment, and contract structures can actually support delivery at the speed capital expects.

If there's a correction, it won't start with the glossy renderings.

It will start quietly. With land.

EMERGING COMPETITION: MANUFACTURING ONSHORING, TARIFFS, AND THE LAND-POWER SQUEEZE

The backdrop to the land speculation narrative has grown more complex in recent quarters as trade policy and industrial strategy increasingly shift manufacturing priorities back to the United States. What was once a land and power race focused largely on hyperscale compute is now intersecting with

onshoring manufacturing, creating a new competitive dynamic for the same scarce development inputs: land, power, and grid capacity.

Tariff escalation and industrial policy changes have been cited widely as motivations for U.S. companies to relocate or expand domestic production. While the effectiveness of tariffs in repatriating manufacturing jobs is debated in macroeconomic research and policy circles, the intent — and its implications for infrastructure demand — are clear. Recent reporting notes that the U.S. effective tariff rate has climbed to its highest level since the mid-20th century, elevating import costs and prompting strategic supply chain shifts toward domestic production to avoid tariff exposure.

This shift is not happening in isolation. Industrial real estate and logistics research documents show AI-driven data center growth is accelerating competition for industrial-zoned land, particularly in power-constrained corridors. Power availability remains a critical factor in location strategy, influencing not just data centers but also other high-demand facilities such as advanced manufacturing plants.

Manufacturing facilities, especially semiconductor fabs, EV battery plants, and other advanced production sites, are themselves massive consumers of land, engineering capacity, and steady baseload power. As federal and state policymakers lean into incentives for onshoring (including tax credits, grants, and infrastructure support), these facilities are increasingly jockeying for the same physical inputs that data centers need. The overlap is not theoretical: industrial property markets are tightening, and land that was once easily available for large campuses is now contested across economic development strategies. This is further reinforced by reports of major technology firms, not only data center developers, outright buying land across the U.S., squeezing out traditional competitors like housing developers.

Meanwhile, tariffs on energy-related equipment, from solar modules to battery cells, are having a measurable impact on the cost and timing of power infrastructure deployment, which is foundational to both manufacturing and data center builds. A detailed energy sector analysis from Wood Mackenzie shows that tariff-driven cost increases in generation and storage technologies could slow power

project development, exacerbating grid delivery challenges and increasing uncertainty around future energy pricing.

The net result of these intersecting forces is simple but consequential: two capital-intensive, power-hungry development trends are converging on a finite pool of land and grid capacity. Manufacturing onshoring — driven by trade policy, tariff mitigation strategies, and national economic security priorities — adds an entirely new vector of demand to markets already stressed by data center expansion. This isn't a marginal overlap; it has real implications for underwriting, execution risk, and how long-term forecasts are constructed.

In a world where land and power access dictate deliverability, it's no longer adequate to model these variables as independent or sequential. They are now part of a shared infrastructure competition, one where delays in grid upgrades, tariff-induced cost pressures, and overlapping development priorities will increasingly influence pricing, availability, and ultimately, risk outcomes for developers, investors, and communities alike.

CLOSING THE LOOP

The AI buildout is real. Demand is real. Capital will continue to move.

But this cycle is no longer defined by optimism alone. It is defined by deliverability — power that can be secured, permits that can be obtained, contracts that can be enforced, and land that can actually be converted into operating capacity.

As manufacturing onshoring, grid constraints, and AI expansion converge, land is no longer a passive asset. It is a derivative of power, policy, and timing.

The market won't shift all at once. It will adjust incrementally, where assumptions collide with execution. In this environment, the winners won't be those who bought early.

They'll be those who underwrote reality.

That's the signal.



LAND
FOR SALE

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DATA CENTER REVIEWS

EDITORIAL METHODOLOGY NOTE

All Research Insights presented throughout are synthesized conclusions drawn from multiple peer-reviewed studies, regulatory filings, and independent analyses listed above.

Unless explicitly stated, they are not verbatim quotations, but editorial distillations intended to surface shared findings across reputable sources.

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