

# Data Center Briefing

December 23, 2025

Global

## Key themes:

Alphabet vertically integrates into renewables/storage via Intersect acquisition; Power availability and cost allocation becoming the key gating factor for data-centre growth; US state-level regulatory frameworks tighten for large loads (Texas SB 6; Louisiana fast-track approvals); Spain improves grid investment visibility with higher allowed return and 2026 tariff reset; Asia policy focus on data-centre efficiency (Taiwan PUE thresholds; planning-stage requirements); Big-ticket hyperscale campus expansion: Vantage 902MW IT load in Wisconsin; Grid buildout and advanced transmission (India 2.5GW VSC-HVDC) to unlock renewables and large loads; Supply chain/trade measures impacting connectivity inputs (UK duties on Chinese optical fibre)

## Market overview (Global | 23 Dec 2025 UTC)

AI-driven capacity buildouts continue to pull capital toward “bundled” data-centre + power solutions and grid-heavy enablement (HVDC, tariffs/returns, onsite dispatchable frameworks). Deal activity is also shifting upstream into generation and integrated energy platforms, as power availability and interconnection timelines remain the binding constraint.

Spending signals remain strong: [US and Canada lead record data center spending in 2025](#) cites S&P Global forecasting **\$61bn** of global data-centre construction spend in 2025, with **energy constraints (lack of cheap power)** as the main obstacle and renewed interest in nuclear.

## Risks and watchpoints

### Power availability, cost allocation, and regulatory “who pays”

- **Downside risk:** accelerated approvals and bespoke tariffs can shift costs and create political/regulatory backlash. Louisiana’s new fast-track

framework explicitly suspends elements of competitive bidding and consumer protections: [Louisiana adopts fast-track power approvals for data centers](#).

- **Execution bottleneck:** build timing mismatch—data centres can be delivered in **9-12 months** vs generation in **~2.5-3 years**, amplifying stranded-capacity and cost-recovery risk: [Who should pay for electricity for new data centers](#).

### **ERCOT / large-load compliance and onsite power requirements**

- **Near-term risk:** Texas SB 6 (effective 2025) increases compliance complexity for **>75MW** loads and reinforces “bring-your-own-power” expectations as ERCOT peak demand is projected to rise **>65% by 2031**: [Texas SB 6 reshapes power strategy for large data centers](#).

### **Policy uncertainty for clean energy (US)**

- **Downside risk:** shifting subsidies/permitting outcomes can alter PPA pricing and COD timelines for solar/storage that many data-centre projects underwrite to: [US clean energy faces policy whiplash and mixed outcomes](#).

### **Supply chain / trade measures (networking materials)**

- **Cost/lead-time risk:** UK imposes definitive duties on Chinese optical fibre cables—potentially impacting network build costs for UK data-centre connectivity programs: [UK imposes definitive anti-dumping duty on Chinese fibre](#) and [UK imposes anti-subsidy duties on Chinese fibre cables](#).

### **Technology & architecture transition risk (AI infrastructure)**

- **Execution risk:** legacy “one-model-per-node” cluster designs may underperform agentic/multi-model workflows, implying redesign capex and refresh cycles: [Agentic AI infrastructure requires bundled models per node](#).

## **Key deals and hyperscale/AI campus projects**

### **Alphabet: vertical integration into power + data-centre enablement**

- Alphabet agreed to acquire Intersect, positioning it to accelerate both data-centre capacity and power buildout: [Alphabet to acquire Intersect for U.S. energy innovation](#).
- Separate coverage specifies valuation and strategic intent: [Alphabet Acquires Intersect Power for \\$4.75B to Power AI \(\\$4.75bn plus assumed debt\)](#) to secure renewables (solar/wind/battery) for AI data centres and support **24/7 carbon-free energy** goals; builds on Alphabet’s prior minority stake.

### **US: multi-building hyperscale campus in Wisconsin**

- [Vantage breaks ground on Lighthouse data center campus](#):

- **Location:** Port Washington, Wisconsin.
- **Scale:** 4 data centers, targeting **902MW of IT capacity**.
- **Investment:** \$15bn total; **Phase 1: \$8bn**, expected by **2028**.
- **Delivery partners:** Whiting-Turner, The Weitz, Michels, and a Turner-McCarthy JV.
- **Demand linkage:** described as part of Oracle/OpenAI's **Stargate** initiative (consortium targeting **10GW over four years**, with US and international sites).

## US: local permitting momentum (Louisiana)

- [Shreveport council approves 2.8 million-square-foot data center permit:](#) Shreveport city council approved a permit for a **2.8m sq ft** data centre at **Resilient Technology Park**.

## Vietnam: AI R&D + data infrastructure site

- [FPT breaks ground on AI Research Center in Gia Lai:](#) **VND 613bn (~\$23.27m)** project on **11.13 hectares** including AI research, UAV testing, and a data infrastructure center; expected operations **2027**.

## India: Adani AI data-centre + energy buildout (early signal)

- [Adani plans major AI data centre and energy expansion:](#) Adani Group to expand AI data-centre infrastructure and scale energy supply, committing **up to \$5bn** to build facilities for global tech firms (including Google), leveraging renewables and evaluating nuclear.

## Power, grid and interconnection highlights

### Spain: improved regulated returns + 2026 tariff reset

- [CNMC sets 6.58% return rate for Spanish power networks:](#) CNMC sets electricity-network return at **6.58% for 2026-2031 (+100bp)**, aiming to provide regulatory certainty; methodologies align investments with government limits of up to **0.13% of GDP**.
- [CNMC sets 2026 electricity transmission and distribution tariffs:](#) 2026 access tariffs imply **~0.5% average increase** vs 2025; **transmission remuneration +12.1%**, **distribution +2.5%**, partially offset by expected demand growth and phased allocation of past settlement deviations.

### India: major HVDC corridor award (renewables integration)

- [GE Vernova to supply HVDC for Adani Khavda corridor:](#) GE Vernova awarded contract by Adani Energy Solutions to supply a **2.5GW, ±500kV VSC-HVDC** system for **Khavda-South Olpad** corridor; completion targeted **2030**. Letter of award expected to be booked as an order in **1H 2026**.

### South Africa: improved reliability outlook

- [Eskom reports stable power system and improved performance](#): Energy Availability Factor >**66%**; >**217 days** without load shedding; plans **4,670MW** online for evening peaks; projects **no load shedding through March 2026** (Summer Outlook).

## US: grid expansion strategies and cost containment

- [US strategies to expand the grid while lowering costs](#): RMI highlights that planned **\$1.4tn** US grid investment by 2030 must be delivered without sharply rising electricity costs; proposes strategies to deploy new clean technologies, accelerate project delivery, and maximize existing grid capacity.

## Grid-edge visibility (relevance to AI-data-centre power electronics)

- [ORNL and UT develop real-time Universal GridEdge Analyzer](#): real-time waveform measurement/streaming device in use by utilities in **Hawaii and Texas** to study power electronics behavior, including stability and backup-power events at AI data centres.

## Policy and regulation

### Texas (ERCOT): SB 6 large-load framework

- [Texas SB 6 reshapes power strategy for large data centers](#) underscores a tightening posture for >**75MW** loads and increasing emphasis on **onsite dispatchable** and renewable power models.

### Louisiana (US): fast-track power plant approvals + cost sharing

- [Louisiana adopts fast-track power approvals for data centers](#): new “lightning speed” pathway potentially shortens regulatory timelines to **as little as eight months**; large customers would pay **half** the cost of new plants, with the remainder potentially borne by regular utility customers.

### Taiwan: mandatory energy-efficiency manuals + PUE thresholds

- [Taiwan mandates energy efficiency manuals for large data centers](#): applies to information service providers including hyperscale/colo with **≥5MW** contracted power; requires Energy Utilization Manuals and Best Available Techniques at planning stage. Sets PUE thresholds: **1.3 hyperscale, 1.4 colocation**.

### UK: trade remedies on optical fibre cables

- Definitive duties implemented/updated on optical fibre cables from China: [UK imposes definitive anti-dumping duty on Chinese fibre](#) and [UK imposes anti-subsidy duties on Chinese fibre cables](#).

## AI governance pressure (investor/issuer focus)

- [Trends in AI-focused shareholder proposals at U.S. companies](#): sustained AI-related shareholder proposals (2022–mid-2025) focused on responsible AI governance, ESG risks, and data-centre impacts; notes investors representing >\$8.5tn AUM backing ethical AI principles.

## Technology & operating model shifts (capex and efficiency implications)

- **Cooling / high-density readiness:** [MHI and EXEO deploy Japan's first two-phase DLC GPUs](#) reports commercial deployment of two-phase direct-to-chip liquid cooling GPU servers in Japan, targeting better cooling efficiency and reduced fan power/PUE.
- **AI cluster architecture:** [Agentic AI infrastructure requires bundled models per node](#) argues for infrastructure designed around multi-model “bundles” per node to support agentic workflows.

## What to watch (next 1-4 weeks)

- Whether [Alphabet Acquires Intersect Power for \\$4.75B to Power AI](#) triggers additional hyperscaler moves into owned generation/storage platforms.
- Milestones on Vantage's [Lighthouse data center campus](#) (contracting, power sourcing, and any interconnection/power-plant announcements supporting 902MW IT load).
- State utility commissions' evolving “cost causation” approaches (Louisiana fast-track vs bespoke tariffs and guarantees noted in [Who should pay for electricity for new data centers](#)).
- ERCOT compliance and onsite dispatchable procurement strategies as SB 6 implementation progresses: [Texas SB 6 reshapes power strategy for large data centers](#).
- Spain's network investment implications under the new **6.58%** allowed return and 2026 tariff parameters: [CNMC sets 6.58% return rate for Spanish power networks](#).
- Taiwan's enforcement trajectory for new PUE thresholds and planning-stage requirements: [Taiwan mandates energy efficiency manuals for large data centers](#).
- UK fibre duties pass-through into pricing/lead times for network builds: [UK imposes anti-subsidy duties on Chinese fibre cables](#).