

Data Center Briefing

December 31, 2025

Global

Key themes:

Grid-independent gas-powered multi-GW data centre campuses emerge (Texas); Permitting and local opposition remain gating risks (New Mexico, Wisconsin); Capital markets optionality for scaled platforms (AirTrunk 2026 REIT IPO); India policy tailwinds: nuclear sector opening + record renewables additions; Transmission buildouts continue via BOOT/TBCB and incremental upgrades (India, Vietnam); Energy storage growth with 2026 FEOC sourcing and safety compliance watchpoints; Cloud supply-chain/security risk expected to rise through 2026

Market overview (Global | 31 Dec 2025)

Power availability, cooling delivery, and financing structures remain the binding constraints for hyperscale and AI data centre expansion, with developers increasingly pursuing **behind-the-meter / self-supplied power** and **off-balance-sheet capex** models. New announcements highlight:

- A shift toward **grid-independent, gas-powered AI campuses** in Texas (multi-GW scale, 24-month delivery claims) alongside continued pressure on permitting and local opposition in parts of the US.
- **Capital markets optionality** emerging for scaled platforms (e.g., potential REIT IPO path in APAC).
- Policy tailwinds in India that could expand the long-term low-carbon baseload toolkit (nuclear sector opening; SMR funding) while near-term electrification continues to lean on record renewables additions and transmission buildout.

Risks and watchpoints

Near-term downside/upside risks, bottlenecks, and execution challenges to monitor:

- **Permitting / environmental constraints and local pushback (US):** Doña Ana County's approval of **\$165bn in bonds** for Project Jupiter data centres is paired with **air-permit questions** and a request for more information by **Jan 19** ([Project Jupiter bond approval and air-permit questions](#)). Community friction is also evident around a **Vantage Port Washington** data centre prompting building relocations ([Vantage Port Washington community impacts](#)).
- **Sponsor/legal risk impacting pipeline credibility:** New Mexico's Attorney General lawsuit against **New Era Energy & Digital's CEO** alleges misconduct tied to oil wells; this threatens plans for a **3,500-acre multi-gigawatt AI data centre in Lea County** and coincided with a sharp equity drawdown ([New Era Energy & Digital lawsuit threatens AI DC plans](#)).
- **Fuel / emissions and execution risk in "grid-independent" builds:** Grid-free, gas-powered campuses can accelerate time-to-power but introduce risks around fuel supply, emissions scrutiny, and construction complexity at multi-GW scale ([GridFree AI South Dallas One](#)).
- **Grid buildout and interconnection lead times:** Transmission construction timelines remain multi-year (e.g., 24 months for a Karnataka 400 kV project; 101.7 km second-circuit upgrade in Vietnam), with potential schedule slippage and right-of-way constraints ([Karnataka 400 kV substation/lines BOOT TBCB](#); [EVNNT Bac Giang-Lang Son second circuit](#)).
- **Supply-chain / security risk:** Security leaders are warning of increased attacks on major cloud platforms and supply chains through 2026, with misconfiguration/patching gaps a key vulnerability ([Cloud supply-chain attacks warning](#)).
- **Policy uncertainty on clean-energy components / sourcing:** Energy storage growth expectations are tempered by **FEOC sourcing rules starting in 2026** and safety compliance needs (UL 9540A / CSA-800) ([Burns & McDonnell on 2025 energy storage trends](#)).

Key deals, financings, and platform moves

- **Texas (US): multi-site, multi-GW "grid-independent" campus concept.** GridFree AI announced **South Dallas One** in **Hill County, Texas**, part of a planned **three-site "South Dallas Cluster"** totaling **nearly 5 GW gross power capacity** (each site **>1.5 GW**). The company states it can be delivered **within 24 months from lease signing**, with **industrial-grade chilled water cooling** and operations independent of local electrical grids. **Newmark** is exclusive advisor; **Goldman Sachs** is co-leading financing ([GridFree AI unveils South Dallas One](#)).
- **APAC hyperscale monetisation optionality:** AirTrunk (acquired Sept 2024 by funds managed by **Blackstone** and **CPP Investments** for

A\$24bn / US\$16.1bn) is reportedly planning a **2026 REIT IPO** to raise **US\$1bn**. AirTrunk has **>800 MW committed capacity** and land supporting **>1 GW future growth** across **Australia, Japan, Malaysia, Hong Kong, and Singapore** ([AirTrunk plans 2026 REIT IPO](#)).

- **Market narrative and funding structures:** An industry scorecard reiterates power/cooling/utility partnerships as dominant strategic forces, citing a **\$120bn+** shift of AI data centre spending **off balance sheets** and projecting AI-driven load could reach **up to 12% of US electricity by 2028** ([Data Center Frontier 2025 scorecard](#)).

Key projects and demand nodes

- **Africa: data centres positioned as power-sector catalyst.** The African Energy Chamber argues expanding local data centres can catalyze investment in power infrastructure and renewables; it cites an African data centre market value of **US\$3.49bn (2024)** projected to reach **US\$6.81bn by 2030**. A highlighted pipeline example is a **US\$1bn Microsoft-G42-backed 100 MW green data centre planned for Kenya** ([Africa power modernisation via data centres](#)).
- **US (Maine): early-stage AI capacity with expansion optionality.** LiquidCool Solutions has **leased AI data centre space (5-6 MW), expandable to 50 MW** as part of broader Aroostook County investment activity ([Aroostook County AI DC leasing and expansion](#)).
- **US (New Mexico): mega-project financing headline vs permitting follow-through.** A year-end roundup notes Doña Ana County approved **\$165bn in bonds** for **Project Jupiter** data centres, but the project faces **air-permit questions** and must provide more information by **Jan 19** ([Project Jupiter bonds; air-permit questions](#)).

Power, grid, and interconnection highlights

- **India: record renewables additions in 2025 (supply growth supportive for DC siting).** The Ministry of New & Renewable Energy reported **44.51 GW** of renewable capacity added in 2025 (through Nov), led by **solar +34.98 GW** and **wind +5.82 GW**, taking total RE capacity to **253.96 GW** and non-fossil capacity to **262.74 GW (51.5% of national**

capacity). MNRE also advanced solar manufacturing (ALMM/PLI additions) and launched the **Green Hydrogen Certification Scheme (GHCI)** ([India adds record 44.5 GW RE capacity](#)).

- **India: major transmission build under BOOT/TBCB structure.** Dilip Buildcon was selected as L-1 by REC Power Development and Consultancy to build a **400 kV sub-station at Mekhali** and associated **400 kV/220 kV lines in Belagavi, Karnataka** under a **BOOT TBCB** model. EPC value is estimated at **₹1,850 crore (ex-GST)**; **24 months** construction; **35-year** tariff-based annuity operating period ([Karnataka 400 kV project award](#)).
- **Vietnam: incremental transmission reinforcement.** EVNNPT is in final construction to install a **second circuit** on the existing **220 kV Bac Giang-Lang Son** line (~**101.7 km**) and add a **new 220 kV bay** at Bac Giang substation to connect with Lang Son substation ([EVNNPT 220 kV second circuit](#)).
- **Storage and firming: regulatory/supply-chain constraints approaching 2026.** Burns & McDonnell expects continued growth driven by data-centre demand and faster solar+storage deployments; it notes **FEOC sourcing rules starting 2026**, advocates **UL 9540A/CSA-800** testing, and highlights a shift toward **LFP** and domestic supply chains; it has delivered **>3 GWh** of BESS projects to date ([Energy storage trends and FEOC watchpoints](#)).

Policy and regulation

- **India opens civil nuclear to private operators (long-term baseload optionality):** The SHANTI Bill 2025 allows **licensed private Indian operators** and **up to 49% FDI via joint ventures** to build/own/operate civil nuclear facilities, and sets a **100 GW nuclear capacity target by 2047**. The 2025 Union Budget earmarked **₹20,000 crore** for SMR development targeting **five indigenous SMRs by 2033**, and revised liability rules to an overall cap of **₹3,000 crore** with graded limits for smaller reactors ([India SHANTI Bill 2025 nuclear opening](#)).
- **US local permitting scrutiny remains a gating item:** Project Jupiter's air-permit questions and documentation deadline (Jan 19) underscore the

execution risk between financing approvals and permit closure ([Project Jupiter permitting watch](#)).

Equipment, connectivity, and operational efficiency (selected)

- **Energy-efficient AI connectivity narrative:** Credo's 2025 ESG report emphasises energy-efficient connectivity supporting AI data centres across **100G-1.6T** interconnect markets (SerDes/DSP, ICs, AECs, chiplets) ([Credo 2025 ESG report](#)).
- **Software/ops research focus:** Several arXiv papers point to potential infrastructure efficiency gains—e.g., Kubernetes autoscaling cost reduction claims ([AIOps SLO-driven autoscaling](#)) and disaggregated approaches for AI workloads ([RollArc disaggregated infrastructure for agentic RL](#)). While not directly investable, they reinforce the direction of travel toward higher utilisation and more granular resource allocation.

What to watch (next 2-8 weeks)

- GridFree AI: counterparties, fuel supply arrangements, and milestones behind the **24-month delivery** claim for the **~5 GW** Texas cluster ([South Dallas One](#)).
- AirTrunk: confirmation of **2026 REIT IPO** pathway, likely asset perimeter, and any pre-IPO portfolio actions ([AirTrunk REIT IPO plan](#)).
- New Mexico: **Project Jupiter** information submission by **Jan 19** and implications for air permitting ([Project Jupiter](#)).
- New Era Energy & Digital: litigation trajectory and financing/sponsor impact on the **Lea County** multi-gigawatt plan ([New Era lawsuit](#)).
- India: implementation details of SHANTI Bill (licensing, JV structures) and whether SMR timelines attract data-centre-aligned power strategies ([SHANTI Bill 2025](#)).
- Grid capex pipeline: progress on Karnataka **400 kV** BOOT/TBCB execution and Vietnam's **220 kV** reinforcement as indicators of regional grid delivery pace ([Karnataka project](#); [Vietnam second circuit](#)).