US Data Center Daily Briefing

December 31, 2025

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; EVNNPT 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).