US Data Center Daily Briefing

December 20, 2025

KEY THEMES

- US utility capex scaling for AI load (Georgia +10,000 MW)
- Large-load contracting with credit protections (DTE–Oracle/OpenAI 1.4 GW)
- FERC orders PJM to formalize data-centre colocation rules
- Transmission buildouts face escalating local opposition (Virginia 500kV line)
- Water permitting standardization emerges (Ohio EPA general permit proposal)
- India renewables and connectivity consolidation (Inox–Vibrant; Megaport–Extreme IX)
- Siting/sustainability constraints intensify (hot climates, community scrutiny)

Market overview (Global | 20 Dec 2025 UTC)

AI-driven load growth is pushing power and grid planning into the critical path for data centre deployment, with regulators increasingly conditioning approvals on ratepayer protections, customer credit support, and environmental/process safeguards. In the US, state and federal bodies are simultaneously (i) approving major generation and large-load contracts and (ii) tightening rules around colocation, permitting, and discharges. Outside the US, India continues to scale both digital and energy infrastructure via renewables PPAs, connectivity platforms, and equipment supply chains.

Risks and watchpoints (near-term)

- **Demand and stranded-cost risk**: Georgia regulators approved a large capacity build to serve data centres, but opponents explicitly warned of **financial risk if data-centre demand falls** (Georgia approves 50% power expansion to serve data centers). This is a key theme for utilities and investors underwriting long-lived generation and transmission.
- **Permitting/community opposition**:
  - Loudoun County residents are mobilizing against Dominion's **500kV Golden to Mars** line serving Data Center Alley; Virginia SCC has **1,000+ comments** and **~600** testifying witnesses; decision expected **January** (Virginia residents oppose Golden to Mars transmission line).
  - Michigan approvals and wetlands impacts around the Saline Township buildout remain politically sensitive despite regulatory approvals and conservation offsets (Michigan

hearing on wetlands permit for Saline data center; Michigan commission approves DTE data center despite community concerns).

- **Regulatory uncertainty for large-load interconnection/colocation**: FERC ordered PJM to stand up new transmission services and colocation rules on a tight clock—**60 days** for services and a **Jan. 19** report on integrating large loads (FERC orders PJM to develop data center colocation rules). Execution risk is high given queue constraints and stakeholder divergence.
- **Water/thermal constraints**: Policymakers are moving toward standardized discharge frameworks (Ohio), but this can invite broader scrutiny of water use and heat rejection—especially in hot climates where efficiency is structurally challenged (Ohio EPA proposes permit to allow data center discharges; Hot climates strain global data centers built to serve AI).
- **Input cost and supply chain risk**: Everstream flags uncertainty around potential **U.S. tariff refunds** and surging **copper/metal demand** tied to the energy transition—relevant to electrical gear, conductors, transformers, and switchgear lead times (Everstream highlights tariffs, metal demand and supply risks).

Key deals, financings, and corporate moves

US: large-load contracting and site pipeline

- **Michigan (Saline Township): 1.4 GW Oracle/OpenAI**
  - Michigan regulators **unanimously approved** DTE Energy's request to serve a **1.4 GW** data centre development by **Oracle and OpenAI** with contract protections including **upfront collateral, minimum charges, and a termination fee**.
  - Developers are supporting the project with a **~$14bn debt deal**.
  - OpenAI frames the **Stargate** campus as part of a planned **8 GW** in the US and **$450bn** investment over three years (Michigan approves DTE to power Oracle-OpenAI data center).
- **PJM region: colocation enabling path + pipeline datapoints**
  - FERC action is paired (in the same coverage) with: **Alterra** buying **270 acres** for **$1.12m** for a gas plant + data centre concept (due diligence by **Q3 2026**), and a note that **Oracle's 1+ GW Michigan data center** remains on track for **early 2026** (FERC orders PJM to develop data center colocation rules).

India: renewables platform M&A + connectivity consolidation

- **Renewables/services platform**: **Inox Green Energy** will acquire **Vibrant Energy** from **Macquarie Asset Management** at an **equity valuation of $200m**. Vibrant operates **~800 MW** of renewables with a **3 GW pipeline** and disclosed PPAs including **~500 MW with Amazon** and **231 MW with Sify** for data centres (Inox Green Energy to buy Vibrant Energy for $200M).
- **Digital connectivity**: **Megaport** acquired **Extreme IX**, described as India's largest internet exchange with **4+ Tbps** of traffic and interconnections to **400+ networks** across **7 cities** and **49 locations**. Extreme IX will remain carrier-neutral; Megaport will integrate it into its global software-defined network over coming months (Megaport acquires Extreme IX, secures India's largest internet exchange).

Power, generation, transmission, and interconnection highlights

US: utility capacity build and grid bottlenecks

- **Georgia: +10,000 MW build-out approved**
  - Georgia PSC approved (5–0) Georgia Power's plan to increase generating capacity by **~50% (~10,000 MW)**, with construction estimated at **$16.3bn**.
  - Customers are projected to pay **$50–$60bn** over coming decades.
  - Georgia Power agreed to use new-customer revenue to apply downward pressure on rates from **2029–2031** of **at least $8.50/month** (Georgia approves 50% power expansion to serve data centers).
- **Virginia: transmission opposition in Data Center Alley**
  - Dominion's proposed **500kV Golden to Mars** line faces organized community resistance; proposed mitigations include **undergrounding** and shifting **cost responsibility to data centre customers**. SCC decision expected **January** (Virginia residents oppose Golden to Mars transmission line).

Federal market design: PJM colocation framework

- FERC ordered PJM to develop transmission rules to allow colocating data centers at **gas-fired and nuclear plants**, requiring **three new transmission services within 60 days** and a **Jan. 19** report on integrating large loads (FERC orders PJM to develop data center colocation rules).

Energy storage and broader supply outlook

- **India (Odisha): BESS tender**

  - SECI issued a tender for **125 MW/500 MWh (4-hour)** BESS to supply **GRIDCO**. It targets **six projects** (five at **20 MW/80 MWh** and one at **25 MW/100 MWh**) grouped into **three clusters**, using e-bidding followed by e-reverse auctions (SECI issues 125 MW/500 MWh 4-hour BESS tender in Odisha).

- **US wind additions**: Wood Mackenzie / ACP forecast **7+ GW** wind capacity additions in **2025** and **46 GW** from **2025–2029**; the report notes data centres may drive **~59 GW** of the projected **90 GW** peak-demand increase through **2029** (US To Install Over 7 GW Wind Capacity in 2025).

Policy, permitting, and regulatory developments

- **Ohio: proposed general discharge permit for data centres**
  - Ohio EPA proposed a **five-year general permit** to allow qualifying data centres to discharge certain cooling and boiler wastewaters into Ohio surface waters under strict conditions.
  - **Comment period open through Jan. 16, 2026**; final approval rests with Director **John Logue** (Ohio EPA proposes permit to allow data center discharges).
- **US (telecom infrastructure funding): BEAD repurposing—explicitly excluding data centres**
  - Senators introduced the **SUCCESS for BEAD Act** to allow remaining BEAD funds for non-deployment infrastructure/workforce tied to AI, but **explicitly excluding data centers**; Commerce estimates **~$21bn** remains unspent (Senators introduce bill to preserve BEAD non-deployment funds).
- **India: transmission tariff case**
  - CERC reserved its order on APTRANSCO's petition seeking truing-up (2014–19) and tariff determination (2019–24) for specified **400 kV** transmission lines; no interim relief was granted (CERC reserves order on APTRANSCO transmission tariff petition).
- **Japan: unlocking public funding for nuclear recovery/new build**
  - Japan's trade and industry ministry proposed a loan system for long-term safety upgrades and new nuclear builds; Niigata lawmakers expected to approve restarts of two **1.36 GW** Kashiwazaki-Kariwa units.
  - Restart costs estimated **$700m–$1bn per unit**; a new **1 GW** reactor roughly **$7bn**; public funding could cover **~30%** (potentially **30%–50%**) (Japan moves to unlock public funding for nuclear recovery).

Operating model implications (design, cooling, sustainability)

- **Sustainability as an operational constraint**: Industry commentary frames 2025 as a shift where sustainability (power, water, land) becomes immediate constraint amid AI growth and heightened regulatory/community scrutiny (2025: Sustainability becomes operational constraint for data center industry).
- **Hot-climate siting risk**: A visual investigation highlights AI-focused data centres being built in hot regions, citing **21 countries** where all data centres are in high-temperature areas; it notes regulatory and community pushback over energy and water use (Hot climates strain global data centers built to serve AI).
- **Latency-driven metro inference**: Operator priorities are shifting toward low-latency infrastructure and metro-proximate inference zones; one cited example contrasts **20 ms vs 200 ms** latency as a failure-risk threshold for real-time use cases (Latency is survival: building data centres for AI inference).
- **Technical pathway for grid interaction**: Research proposes a three-mode **grid-forming control** for centralized MV UPS/battery systems in large AI data centres; simulated on a **50 MW** block with outcomes including **zero unserved IT energy** and improved PCC voltage under faults vs benchmarks (Three-mode grid-forming control for data center UPS).

What to watch

- **PJM compliance timeline**: PJM's delivery of the **three new transmission services (within 60 days)** and the **Jan. 19** large-load integration report (FERC orders PJM to develop data center colocation rules).
- **Virginia SCC decision (January)** on Dominion's **500kV Golden to Mars** transmission line and potential cost-allocation/undergrounding outcomes (Virginia residents oppose Golden to Mars transmission line).
- **Georgia Power execution**: sequencing, procurement, and rate-path implementation for the **~10,000 MW / $16.3bn** expansion plan (Georgia approves 50% power expansion to serve data centers).
- **Michigan Saline Township follow-through**: how contract protections (collateral/minimum charges/termination fee) interact with ongoing community and environmental scrutiny (Michigan approves DTE to power Oracle-OpenAI data center; Michigan hearing on wetlands permit for Saline data center).
- **Ohio EPA permit**: stakeholder response ahead of **Jan. 16, 2026** comment deadline for the general discharge permit (Ohio EPA proposes permit to allow data center discharges).

- **India renewables contracting**: implications of Inox's acquisition of Vibrant for hyperscaler/colocation renewable PPAs (Amazon/Sify-linked volumes disclosed) (Inox Green Energy to buy Vibrant Energy for $200M).