

Data Center Briefing

January 10, 2026

Global

Key themes:

20-year nuclear PPAs underpin hyperscale expansion; FERC rulemaking targets >20 MW large-load interconnections; Environmental permitting tightening for data centres (Ohio NPDES); Local opposition to gas + transmission tied to data-centre load; Mega-scale AI campuses announced with large capex (xAI \$20bn); Grid-enabling transmission and substation buildout in India; Behind-the-meter power, BESS and liquid cooling driven by grid delays; Rising cyber and physical security risk for critical infrastructure tooling

Global Data Centres & Power — Daily Briefing (UTC 2026-01-10)

Scope: Global | Audience: Institutional asset managers and infrastructure fund managers

Top news (3)

1. Meta locks in long-dated nuclear supply in PJM

- [Vistra and Meta sign 20-year PPAs to support nuclear generation](#): **20-year PPAs for 2,609 MW** of zero-carbon nuclear energy in **PJM**.
 - Supply includes **2,176 MW** from operating units plus **433 MW of uprates**.
 - Plants referenced: **Beaver Valley (PA), Davis-Besse (OH), Perry (OH)**.
 - Meta support starts **late 2026**, with **full capacity by 2034**.
 - Vistra says the contracts support pursuing subsequent **20-year NRC license renewals**.

2. US regulators moving toward standardised rules for >20 MW “large load” interconnections

- [US DOE directs FERC to standardise large-load interconnections](#): DOE directed FERC to begin rulemaking (**Docket RM26-4-000**) to create standardised interconnection procedures for **large electrical loads >20 MW** (including hybrids).
 - DOE asked for **final action by April 30, 2026**.
- 3. **US environmental permitting and local opposition intensify around data-centre-linked infrastructure**
 - [Ohio EPA proposes first general NPDES permit for data centers](#): draft general permit **OHD000001** would regulate statewide data centre **wastewater/stormwater** discharges (incl. **cooling tower and boiler blowdown**) with **effluent limits + monitoring, five-year term, Notice of Intent**, and **\$200 application fee**.
 - [PEC urges Fluvanna to reject Tenaska 1.5 GW gas plant](#): environmental group urges “no” on a second **1.5 GW gas plant** in **Fluvanna County, Virginia**, citing impacts from a Harvard Dominici Lab study and arguing it would mainly serve data centres in **central/northern Virginia** alongside a proposed **~155-mile 765-kV** transmission line.

Key deals and projects

United States

- **Hyperscale / AI buildouts**
 - [xAI announces \\$20B Macrohard supercomputing hub in Mississippi](#): xAI to invest **\$20bn** in a **Southaven (DeSoto County), Mississippi** “Macrohard” supercomputing hub, contributing to a cluster intended to deliver **~2 GW of processing capacity**.
 - Built under **tax incentives approved in 2024**; expected to begin operations **within a month**.
 - Reported **environmental/community pushback** (petition **900+** signatures).
- **Site-level development risk (municipal approvals)**
 - [Allen Park postpones decision on 26 MW Solstice data center](#): **Allen Park Planning Commission** postponed decision on **Solstice Data’s** proposed **26 MW** edge data center for additional studies, fire review, and outreach.
 - Developer cited impacts: **~25 permanent jobs, ~200 construction jobs**, and **\$6.2m-\$7.4m/year** in property tax revenue.

India

- **Data-centre services / public-sector IT infrastructure**

- [RailTel secures Rs 1.02 billion IT infrastructure order](#): **Rs 1.02bn** order from **PFMS** to supply IT infrastructure plus managed operations across **DC, DR, SOC services and colocation**.
 - Execution due by **Jan 31, 2027**.
- **Capital markets / bankability context (infra broadly; relevant for DC power & grid enabling assets)**
 - [India's infrastructure financing transformed by reforms and new capital](#): cites **Union Budget 2025-26 capex Rs 11.2trn** and **RBI Project Finance Directions** effective **1 Oct 2025**, alongside growth in **InvITs** and infrastructure bonds.
 - [DFIs reshape India's infrastructure financing amid low NPAs](#): highlights NaBFID scale (**balance sheet >Rs 900bn; disbursements >Rs 1trn; sanctions ~Rs 2.7trn**) and a **partial credit enhancement** product (Sept 2025; first transactions expected **2025-26**), plus IIFCL exploring **ECBs with a MIGA-backed guarantee**.

Europe

- **Nature and land-restoration positioning (ESG / social license)**
 - [Microsoft leads nature integration in Europe's data centre operations](#): Arbonics ranks Microsoft highest; cites **6,414 hectares protected** and **77,000+ trees planted**.

Central Asia

- **Nuclear buildout narrative linked to powering technology**
 - [Kazakhstan president urges building nuclear plants to power tech](#): call to begin with **Balkhash** plant featuring **two Russian Generation III+ WER-1200 reactors**, targeting nuclear at **~5%** of electricity by **2035**, with additional plants planned using Chinese technology.

Power, grid, and interconnection highlights

United States

- **Large-load interconnection standardisation (potentially material for DC timelines and network upgrade risk allocation)**
 - [US DOE directs FERC to standardise large-load interconnections](#): covers **>20 MW** load interconnections, including **hybrids**, with DOE requesting a rulemaking outcome by **Apr 30, 2026**.
- **Flexible load as a grid resource (software-enabled demand shaping)**

- [AI data centers could stabilize the power grid](#): Emerald AI/NVIDIA/Oracle/SRP/EPRI test in Phoenix on a **256-GPU cluster** reduced power use by **25% over a 3-hour stressed-grid period** while preserving SLAs.

India

- **Transmission enabling capacity near key growth corridors**
 - [Tata Power commissions 400/220 kV substation in Greater Noida](#): commissioned **400/220 kV** substation and lines adding **1,000 MVA** transformation capacity; executed by **TP Jalpura Khurja Transmission Limited**; noted as first milestone under the **Jalpura-Khurja TBCB** project.
- **Renewables integration buildout**
 - [POWERGRID wins transmission project to integrate 3 GW renewables in Karnataka](#): selected for a **400 kV double-circuit** transmission line and pooling station augmentations to integrate **3 GW** of RE (0.25 GW Davanagere; 2.75 GW Bellary) under **BOOT**.
- **Renewables procurement structure (storage + ISTS-connected requirement)**
 - [SECI invites bids for 1000 MW excess renewable power](#): SECI tender to procure **1,000 MW** of excess RE from existing PPA-backed projects via **12-year PPAs**.
 - Requires **ISTS-connected** projects **with energy storage**; EMD **INR 954,000 per MW**.
- **Operator commentary on green power structures**
 - [India data centres shift to green power, hybrid storage models](#): conference comments that hybrid+storage can supply **~90-96%** green energy at **~Rs 5-Rs 6 per unit**, with **25-year PPA horizons** and interstate sourcing.

Nuclear supply contracting (US)

- **Additional SMR deployment detail (beyond the Vistra PPAs)**
 - [Meta, TerraPower to build up to 8 Natrium reactors](#): Meta to fund deployment of TerraPower's **Natrium** reactors (up to **eight units**, up to **2.4 GW**), funding early development of two units and securing rights for up to six more.
 - Natrium design: **345 MW** sodium fast reactor paired with molten salt storage that can boost output to **500 MW for >5 hours**.
 - First commercial project expected complete **2030**; additional unit delivery anticipated as early as **2032**.

Policy and regulation

United States

- **Water and wastewater regulation for data centres (new statewide template)**
 - [Ohio EPA proposes first general NPDES permit for data centers](#): draft general permit sets a structured compliance pathway (limits, monitoring, NOI, fee), potentially affecting schedule/cost for new builds and expansions.
- **Energy policy supporting storage and firming options**
 - [Pritzker signs Illinois energy law boosting batteries, renewables](#): Illinois **Clean and Reliable Grid Affordability Act** enables **battery storage**, lifts a moratorium on **large-scale nuclear**, and authorizes long-term contracts and geothermal pilots.
 - Illinois Power Agency estimates **3 GW battery deployment by 2031** could add small surcharges but reduce average monthly residential bills by several dollars (Ameren: **\$3.90-\$8.28**; ComEd: **\$1.46-\$1.85**).
- **Environmental compliance flexibility framed as grid reliability for AI load growth**
 - [Trump EPA eases coal ash rules for AI data centers](#): proposal to relax enforcement of a 2024 coal-ash rule and consider a **three-year cleanup extension to Oct. 17, 2031** for **11 plants / 13 unlined ash dumps**.
 - Public comment through **Feb 6, 2026**.
- **Local permitting and social license for gas + transmission serving data centres**
 - [PEC urges Fluvanna to reject Tenaska 1.5 GW gas plant](#): highlights “second-order” permitting risk where generation + transmission proposals are explicitly tied to data-centre load.
 - [Tracking solid frack waste, data-center gas permit and concrete impacts](#): notes environmental groups appealing an air quality permit for a proposed **4.4 GW** gas-fired plant at **Homer City** intended to power a data center.

Telecom / connectivity deal conditions (US)

- [Verizon opposes broadband deployment obligations in Frontier deal](#): Verizon objects to a CPUC requirement tied to its **\$20bn** Frontier acquisition to deliver **100/20 Mbps** to all locations served by **88 rural wire centers** within five years.

- Verizon proposes exclusions (already served / no requests) and alternatives where fiber cost exceeds **\$10,000 per location**.
- CPUC could vote as early as **Jan 15**; **DOJ approval expiry Feb 13**.

Technology, operations, and market signals (investor-relevant)

- **Macro outlook and infrastructure implications**
 - [Global data center sector to add almost 100 GW](#): JLL forecasts ~**100 GW** new capacity **2026-2030**, creating ~**\$1.2tn** in real estate value (Americas ~half).
 - Notes **multi-year grid connection delays** as a driver of **behind-the-meter power, BESS, liquid cooling**, and higher rack densities (estimated tripling to ~**45 kW**).
 - Estimates **\$1-\$2tn** in tenant fit-out spending by **2030**.
- **Cooling architecture shift risk/opportunity (supply chain + retrofit capex)**
 - [NVIDIA Vera Rubin racks reduce chiller need with liquid cooling](#): NVIDIA announced a **100% liquid-cooled** rack that can operate without a chiller and uses **hot water cooling**, consuming **twice the power** of its predecessor while delivering **5x peak inference** and **3.5x peak training** performance.
- **Cyber/operational risk for DC infrastructure management tooling**
 - [Maximum-severity HPE OneView RCE vulnerability actively exploited](#): CISA added **CVE-2025-37164** (CVSS **10**) to its KEV catalog after observed exploitation; HPE issued a hotfix covering OneView **v5.20-v10.20**.
- **Physical security as a scaling constraint**
 - [Data center boom driven by AI heightens physical security risks](#): argues human factors (training/policy/culture) are the primary vulnerabilities turning physical access into digital breach (examples include tailgating and device implants).

Two-line wrap

Long-dated clean power contracting and interconnection process reform are moving to the centre of data-centre delivery risk.

At the same time, permitting (water, air, coal ash) and security (physical +

control-plane vulnerabilities) are becoming more material to uptime and expansion timelines.

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