US Data Center Daily Briefing

January 27, 2026

KEY THEMES

- Large-scale capital commitments to AI data centre platforms
- Grid capacity constraints driving emergency measures and fossil capacity extensions
- Hyperscale AI pipeline scale (GW) and compressed interconnection timelines
- Next-gen inference silicon deployment inside hyperscale regions
- Powered-land and time-to-power solutions in high-solar US regions
- Supply chain tightness: CPUs improving later in 2026; memory/storage inflation and delays
- Concrete embodied carbon becoming a measurable constraint and procurement theme
- US regulatory shifts (PM2.5) could affect permitting and industrial inputs
- Policy focus on reducing fibre deployment costs via “dig once” laws
- Asia policy packages linking data centre growth to sustainability metrics (PUE/WUE)

Data centres daily briefing — Global (2026-01-27 UTC)

Audience: Institutional asset managers and infrastructure fund managers focused on data centres, power, and grid infrastructure.

Top news (what matters today)

1. **Capital is still rushing into AI data centre platforms.** Nvidia invests $2B in CoreWeave to build AI data centers, buying Class A shares at **$87.20** to support a joint buildout of **5 GW of AI data centres by 2030**. The story also references CoreWeave’s large customer contracts, including **Meta ($14.2bn)** and an expanded **OpenAI contract (~$22.4bn)**.
2. **Grid constraints are increasingly driving power policy—sometimes back toward fossil capacity.** Data center energy surge pressures grids and fuels fossil comeback says the **U.S. DOE and utilities** are delaying **coal** retirements and using **emergency declarations** to preserve capacity amid surging data centre load. The piece cites projections that U.S. data centre demand could reach **130 GW** and up to **12% (~580 TWh/year)** of U.S. electricity by **2028**, alongside **100+ GW of announced gas-fired capacity** (mostly expected before **2030**).
3. **AI silicon is being productised directly for hyperscale inference fleets.** Microsoft unveils Maia 200 AI inference accelerator chip details Maia 200 (TSMC **3nm**) at **>10 PFLOPS (FP4)**

/ **>5 PFLOPS (FP8)**, with **217 GB HBM3e** and **272 MB SRAM** (~**140bn transistors**). It is already deployed in Microsoft's **US Central (Des Moines)** region, with **US West 3 (Phoenix)** next.

Key deals, funding, and capital markets

US / Global capital flows

- DayOne plans U.S. IPO at $20B valuation after Series C: Singapore-headquartered DayOne (reported spinoff from **GDS Holdings**) is reportedly planning a **U.S. IPO** targeting a **$20bn valuation**. The company recently raised **$2bn Series C** funding (reported Jan 2026) at a **100% premium**, with investors including **GDS Holdings, Boyu Capital, Hillhouse, SoftBank Vision Fund, Ken Griffin (Citadel), Coatue, and INA**.
- Neurophos raises $110M to scale photonic AI chips: Neurophos raised **$110m** (investors include **Gates Frontier** and **M12**) to accelerate manufacturing of its photonic optical processing units and move toward **datacenter-ready OPU modules**.

Hardware availability and pricing (near-term delivery risk)

- Intel expects CPU supply to improve after first quarter: Intel expects CPU supply to begin improving in **Q2 2026**, citing factory network improvements and rising **18A** yields. Reported **Q4 revenue $13.7bn** (down **4% YoY**) and **Data Center and AI segment +9% YoY to $4.7bn**.
- Enterprises face storage shortages and soaring memory prices in 2026: AI demand is driving shortages and lead times; TrendForce forecasts **DRAM +55–60% YoY** and **NAND +33–38%**. The story cites examples of component pricing moving materially higher versus early 2025 and **SSD delivery delays potentially exceeding a year**.

Power, grid, and interconnection highlights

United States: scale and timelines are compressing

- Hyperscale AI drives massive, rapid US data center buildout: Industrial Info Resources (at PowerGen International) estimates roughly **$2.4 trillion** of U.S. AI data centre development (within a global **~$3.2 trillion** pipeline). It cites **~296 GW** of U.S. planned capacity tied to AI data centre growth, including **70+ projects ≥1 GW**. Electricity demand tied to these projects is described as rising from **~23 GW (2023)** to **~42 GW today**, targeting **>90 GW by 2030**, with developers compressing generation and interconnection delivery into **12–24 month** windows.

Time-to-power business models and "powered land"

- Exowatt launches ExoRise delivering powered land for hyperscale data centres: Exowatt launched **ExoRise** to deliver **powered land** plus Exowatt's **P3 solar** technology in high-solar regions of the **US Southwest**. A **pilot** is planned to be operational by **end-2026**. The company (founded 2023, Miami-based) previously raised **$50m (Nov 2025)** to fund deployment of its "round-the-clock renewable energy" technology.

Sustainability pinch point: embodied carbon in construction

- U.S. data center buildout fuels concrete embodied carbon challenge: Bloomberg-reported estimates suggest rapid U.S. data centre construction could produce nearly **2 million metric tons of CO2** in **concrete** through **2030**. The story notes **Microsoft, Amazon, and Meta** have signed **offtake agreements** and joined coalitions aimed at pulling through **low-carbon concrete**, while policy shifts and funding cuts are slowing momentum.

Policy and regulation (watchpoints for permitting, cost, and build speed)

United States

- EPA moves to revisit PM2.5 annual standard amid legal challenges: The U.S. EPA (under the Trump administration) filed to revisit and asked the D.C. Circuit to vacate the Biden-era annual **PM2.5** limit of **9 µg/m³**, signalling a broader effort to rework related rules in early 2026. The story flags concerns from industry groups about permitting/investment impacts and cites an American Cement Association estimate that the U.S. will need **1 million metric tons of cement for AI data centers by 2028**.
- Vanderbilt urges strong 'dig once' laws to cut fiber costs: Vanderbilt Policy Accelerator argues for stronger **"dig once"** requirements (install conduit during roadway work). It cites studies suggesting **75%–90%** of fibre deployment cost is road excavation/repair. The report calls for "dig once" requirements in **2026** surface transportation reauthorization and notes **June 2026 BEAD changes**.

Asia

- India Budget 2026 pushes sustainable growth for data centres: Ahead of Union Budget 2026, industry groups urged incentives (e.g., **subsidised land, tax holidays, tariff rebates**) and sustainability-linked benefits. The story cites projections of **14 GW capacity by 2035** and **$70bn** investments by FY35, and requests reforms including **critical infrastructure status**, **ISTS waivers**, and **BESS approvals**, with grant support tied to audited **PUE/WUE**.

- Malaysia advances sustainable digital agenda at WEF Davos 2026: Malaysia's Ministry of Digital reaffirmed "AI Nation" ambitions (under **RMK13**) and proposed a **Data Commission**, while collaborating with WEF on a **digital embassy framework** planned for publication in **April**. It also announced the first **Transitioning Industrial Cluster (TIC)** will launch in **Sarawak** in **June**.

Africa

- Parliament committee to oversee MDDA, USAASA, USAF, BBI in Gauteng: South Africa's Portfolio Committee on Communications and Digital Technologies will conduct a **27–29 Jan 2026** oversight visit in **Gauteng**, reviewing governance, financial management, and operational performance across MDDA, USAASA, USAF, and **Broadband Infraco**, including a walkabout at BBI's **Network Operations Centre**.

Cross-cutting: financial stability and operational resilience

- BIS outlines financial stability risks from AI and digital finance: BIS (Tao Zhang) highlighted that AI and digital finance can improve efficiency but may amplify risks to **liquidity**, **operational resilience**, and **contagion**, calling for stronger governance and coordination (including via BIS Innovation Hub, FSB, IMF).

Operations and technology notes (what to watch inside the fence)

- Salute showcases AI cooling and veteran hiring at PTC26: Salute reported strong PTC 2026 engagement (~**10,000 attendees**) and highlighted **AI direct-to-chip liquid cooling**, integration with **Northshore/Seastack**, and veteran hiring activity via **iMasons/Oplign**. Priorities over the next **12–24 months** include expanding lifecycle services and AI infrastructure support.
- Sequential Simulation of Solid-State Transformer-Driven 800 VDC Data Centers: arXiv preprint models an **SST-driven 800 VDC** architecture converting **10 kV MVAC** to an **800V LVDC** bus, evaluated on RTDS with real-world profiles; authors report tight voltage regulation and reduced input-side energy consumption versus a UPS baseline.
- GOXN: Energy Modeling and Experimentation for Cloud-Native Microservices: arXiv artifact paper presents a method to quantify compute/network/storage energy for Kubernetes microservices; excluding network and storage can under-estimate auxiliary-service energy by up to **63%**.

Two-line wrap

Execution risk is increasingly shifting from capital access to delivery constraints (power, materials, and hardware lead times).
Investors should expect more policy-driven outcomes that directly affect permitting speed, network rollout costs, and decarbonisation pathways.