

Data Center Briefing

January 30, 2026

Global

Key themes:

1 GW greenfield AI data centre announced (India); Texas gas generation permitting scales for data centre load; Local US moratoria/community opposition rising as a delivery risk; Transmission & distribution bottlenecks increasingly constrain AI growth; Microgrid interconnection delays (up to eight years); Heat reuse and grid substations as enabling infrastructure (Stockholm); Direct-to-chip liquid cooling as default for high-density AI; Low-carbon concrete procurement scaling in US builds; Power delivery efficiency innovations at board level (1,000A device); Cross-border GPU connectivity and POP builds in Asia-Pacific

Global data centres briefing (UTC 2026-01-30)

Top news (3)

- **A new 1 GW renewable AI campus announced in India.** [AM Green to build \\$25bn 1GW green AI data centre](#) plans a **\$25bn, 1 GW** fully renewable-powered AI data centre in **Uttar Pradesh**, designed for large-scale AI workloads using **solar, wind, and potential energy storage**, with emphasis on **advanced cooling** and **HPC infrastructure**.
- **Gas-fired power capacity tied to data centres continues to scale in Texas.** Texas regulators issued a major air permit for Pacifico Energy's [7.65 GW "GW Ranch" gas complex](#) in **Pecos County**, authorizing up to **33 million tons/year** of greenhouse gases and **>12,000 tons/year** of regulated pollutants—set against a broader surge in gas projects aimed at data centre load.
- **Local opposition and permitting constraints are becoming a direct schedule risk in US markets.** The City of Madison approved a [one-year](#)

[moratorium on large data centers](#) (new sites >**10,000 sq ft**) to reassess zoning, power, water and community impacts—echoing similar actions elsewhere.

Key deals and projects (by region)

Europe (Nordics / Sweden)

- **Stockholm metro build with heat reuse and grid works.**[atNorth to build 30MW SWE02 heat-reuse data centre](#)
 - **Scale:**30 MW (SWE02 metro site)
 - **Location:**Stockholm
 - **Heat reuse:** Partnership with **Stockholm Exergi**
 - **Power infrastructure:**Ellevio to construct a **new electrical substation** to support the campus
 - **Timeline:** Scheduled to go live **Q4 2027**
 - **Context:** Follows atNorth's recent Nordic expansion (new Iceland campuses; land secured in **Sollefteå** for a future mega site).

Asia (India)

- **Hyperscale-style greenfield AI announcement.**[AM Green to build \\$25bn 1GW green AI data centre](#)
 - **Capex:**\$25bn
 - **IT load:**1 GW
 - **Power concept:**Fully renewable-powered (solar + wind; potential storage)
 - **Design priorities:** Cooling and high-performance computing infrastructure (as stated).

Asia (Japan-Indonesia-Singapore connectivity)

- **Cross-border GPU services / POP build via APN/IOWN.**[NeutraDC and Ishikari sign MOU for cross-border GPU services](#)
 - Parties: **NeutraDC** (Telkom Indonesia subsidiary) and **Ishikari Renewable Energy Data Center No.1**
 - Scope: Colocation + install a **NeutraDC POP** via **APN/IOWN**, connecting **Hokkaido Ishikari** with **Singapore and Indonesia** to enable **Neutra Connect** and **Neutra Compute** cross-border GPU services.
 - Timing: APN/IOWN link between **Hokkaido Ishikari** and **Tokyo Otemachi** due to open **August 2026**.

North America (US Midwest)

- **Large greenfield proposals meeting community pushback and incentives scrutiny.** [Town hall to discuss proposed Montgomery County data centers](#)
 - Site: Proposed **5,000-acre** area near **I-70 and Highway 19**
 - Amazon plan: **1,000-acre campus**, initially **four buildings**, expandable to **13**
 - Other proponent: **Spade Property** (~850 acres) with **three primary buildings**
 - Incentives: Notes a Commission-approved **tax break** for the “Green Amazon” project.
- **Indianapolis market seeing rising policy pressure.** [Data center critics speak at Indianapolis sustainability meeting](#) cited a report claiming **nearly 30** data centres proposed or under construction in **Indiana**, with residents urging the city to pause or tighten oversight (energy, water, land and grid impacts).

Power, grid, interconnection and on-site energy

United States (Texas)

- **Permitting for very large thermal generation continues, with data centres an explicit demand driver.** [Texas issues permit for massive GW Ranch gas complex](#)
 - Regulator: **Texas Commission on Environmental Quality (TCEQ)**
 - Project: **Pacifico Energy** “GW Ranch” in **Pecos County**
 - Size: **7.65 GW**
 - Permit limits: Up to **33 million tons/year** GHG and **>12,000 tons/year** regulated pollutants.
 - Broader pipeline context in the same report: A 2025 surge in gas projects for data centres; **GEM** reported nearly **58 GW** added to the pipeline.
- **Macro view: energy supply may be ample, but wires are the constraint.** [S&P Global: Plenty of energy, transmission limits threaten AI](#) warns that transmission and distribution bottlenecks—exacerbated by rising data centre and AI power needs—could constrain demand fulfilment unless grid investment accelerates.

Microgrids and storage (market constraints)

- **Interconnection delays remain a key gating item for behind-the-meter strategies.** [Microgrid market adapts amid funding and interconnection challenges](#)
 - Survey base: **150+** industry experts (Xendee research)
 - Top issues: **Funding** and **utility interconnection**
 - Reported delay range: Interconnection delays **up to eight years** (panel commentary)
 - Economics note: Panelists said **solar-plus-battery** remains cost-competitive even after the **ITC expiration**.
- **Standards ecosystem is trying to codify design pathways.** [NEMA publishes guidance on ESS and microgrids for data centres](#)
 - NEMA released two guidance papers focused on **energy storage systems (ESS)** and **microgrids** for data centre design, positioning ESS as a way to **reduce grid impact**.

Sweden (distribution build)

- **New substation build as a direct enabler for campus delivery.** [atNorth to build 30MW SWE02 heat-reuse data centre](#) includes **Ellevio** constructing a **new electrical substation** to support the Stockholm campus.

Policy, regulation and community acceptance

United States (local)

- **Permitting pause risk (zoning + utilities + environmental review).** [Madison imposes one-year moratorium on large data centers](#)
 - Scope: New data centres and telecom centres **>10,000 sq ft**
 - Duration: **One year**
 - Intent: Review impacts across **electricity, water, zoning and community considerations** with utilities, experts and developers; potential for permanent rules.
- **Ongoing push for stricter oversight in Indiana.** [City-County Council committee discusses future of data centers](#)
 - Example project: **Metrobloks** proposing a **154-thousand sq ft** data centre at the former **Sherman Drive-In** (zoning hearing pushed to next month)
 - Some speakers called for a **six-month moratorium**.

United States (federal)

- **Nuclear rule changes tied to AI power demand.** [US regulators quietly rewrite nuclear safety rules to speed SMRs](#)
 - Actor: **U.S. Department of Energy**
 - Action: Rewrote safety and security orders to accelerate **SMR** deployment linked to powering AI data centres
 - Program target: **Three experimental commercial reactors by July 4**
 - Investment: Described as “**billions**” in private and public investment with tech backers cited (Amazon, Google, Meta).

Europe (France, requirements snapshot)

- **Heat recovery and energy reporting requirements (effective already).** A legal summary flagged new French requirements effective **Oct 1, 2025** for facilities **>1 MW** (cost-benefit analysis and heat recovery) and energy reporting above **500 kW** in [Key Real Estate and Environmental Considerations for Global Data Centers](#).

Technology and cost drivers (design, cooling, materials, efficiency)

- **Liquid cooling is being positioned as the default for high-density AI.** [Direct-to-chip liquid cooling dominates high-density AI data centre architectures](#) argues direct-to-chip liquid cooling plus dense electrical delivery is now the dominant architecture, highlighting practical design considerations (CDU-based closed-loop, rack manifolds, pump redundancy, heat exchanger margin, telemetry, and prioritizing economized heat rejection).
- **Embodied carbon is becoming a procurement line item in US builds.** [Tech firms buy low-carbon concrete for data center buildout](#)
 - RMI estimate: **2 million metric tons of cement** needed through **2030**, which would emit **1.9 million metric tons of CO2** if traditional cement is used.
 - Contracting signals: **Microsoft** contracted up to **622,500 metric tons** of cement from **Sublime Systems** over **six to nine years**; **Amazon** has deals with **Brimstone** and is using low-carbon concrete in **Virginia** and **Oregon**.
 - Market structure: Launch of the **Sustainable Concrete Buyers Alliance** to coordinate demand.

- **Electrical distribution efficiency is being targeted at the board level for AI loads.** [AmberSemi tapes out PowerTile to cut data center power losses](#)
 - Device: Coin-sized **1,000-amp** vertical power device (“PowerTile”)
 - Claimed impact: Cut board-level power distribution losses by **85%** for AI processors
 - Example estimate from the company: Could save **225 MW/year** (worth **\$160 million**) for a **500 MW** AI data centre
 - Commercial timeline: Partner evaluations later this year; initial shipping targeted for **2027**.
- **Storage and interconnect remain performance bottlenecks for AI economics.** [Storage is the overlooked bottleneck for high-performance AI deployments](#) cites a Meta/Stanford finding that storage can consume up to **one-third** of training power and recommends workload-specific storage choices and connectivity standards (UAL, Ultra Ethernet) to keep accelerators utilized.

2-line close

Market momentum is still centred on scaling AI power and cooling, while grid delivery and local permitting are increasingly determining timelines. More projects are pairing large-load announcements with explicit power, heat reuse, and materials strategies to manage constraints.