

# Data Center Briefing

December 16, 2025

Global

## Key themes:

Ireland reopens Dublin data-centre connections with strict on-site flexibility and renewables requirements; EU advances European Grids Package to accelerate planning, permitting, and cost-sharing; Clean firm power resurfaces via Three Mile Island reboot and Microsoft long-term PPA; Cross-border power and storage buildout: Vena-CATL 4,000 MWh for Indonesia-Singapore export project; Subsea cable security focus on faster repairs and pragmatic resilience measures; Permitting tailwinds in the US from NEPA reforms, offset by rising local/state opposition signals; Major European capacity and capex plans: Data4 €21bn by 2030, including 180 MW Hanau campus

## Market overview (Global | 16 Dec 2025)

AI-driven capacity growth continues to collide with two hard constraints: grid access/permitting and energy credibility (renewables, on-site flexibility, and clean firm supply). Several policy signals today point to more centralised/accelerated grid buildout in Europe and streamlined permitting in the US, while individual markets tighten operating and connection conditions (notably Ireland/Dublin). Parallel infrastructure—subsea cables, cable landing stations, and cross-border interconnectors—remains a strategic resilience theme as data centre density rises.

## Risks and watchpoints

### Downside risks (near-term):

- **Connection conditionality raises delivery risk:** Ireland's new Dublin connection regime requires **on-site generation or batteries to meet full demand** plus ability to **export to grid**, and **80% annual demand from new renewables**—potentially increasing capex, development lead

times, and contracting complexity ([Ireland lifts de facto ban on Dublin data-center connections](#)).

- **Social licence and local permitting backlash:** A push for a **statewide moratorium on new AI data centres** in Michigan underscores growing community scrutiny of land/water use and “secret deals” ([Michigan residents rally for statewide moratorium on AI data centers](#)). Similar local-government negotiation dynamics are visible in Virginia (e.g., proposed performance agreements) ([Central Virginia local governments plan budgets, transit, data centers](#)).
- **Air permitting/operational compliance risk:** Virginia DEQ guidance broadening what qualifies as an “emergency” to allow Tier II diesel generators during some planned outages may reduce uptime risk but increases environmental challenge/PR exposure and potential future regulatory tightening ([Virginia regulators weigh expanded diesel generator use for data centers](#)).
- **Physical infrastructure resilience:** Industry bodies warn that **bureaucracy and repair delays** are key resilience risks for subsea cable systems; any over-prescriptive security regime could slow response times and increase outage exposure for connectivity-dependent campuses ([ESCA urges EU to support market-led subsea cable security](#)).

#### Upside risks (near-term opportunities):

- **Permitting acceleration tailwinds:** US NEPA reforms and guidance set statutory/administrative timelines (e.g., **180 days for EAs; one year for EISs**) and mechanisms for expedited review—supportive for generation/transmission and data centre interconnection pipelines ([NEPA reforms streamline permitting for energy and data centers](#)).
- **EU grid reform momentum:** The European Commission’s preferred option for a European Grids Package emphasises reinforced EU-level planning, cost-sharing, faster permitting and security—potentially easing one of the binding constraints for hyperscale/AI clusters over the medium term ([EU impact assessment for European Grids Package and preferred option](#); [EU impact assessment for European Grids Package and permitting reform](#)).
- **Clean firm power pathways widen:** India’s proposed unified nuclear energy law explicitly supports nuclear expansion (targeting **100 GW by 2047**) as part of decarbonisation and round-the-clock clean power ambitions relevant to data centres ([India introduces 2025 bill to overhaul nuclear energy law](#)).

## Key deals, financings and platform moves

### Data centre development and permitting

- **UK (Didcot, England):** The Environment Agency is consulting on an environmental permit application by Amazon Data Services UK Limited for the **Didcot North Data Centre Campus**; permit conditions and timing

remain pending public comment and agency decision ([Amazon applies for environmental permit for Didcot data centre](#)).

- **Europe (multi-country):** Data4 reiterates a large-scale growth plan—**>€21bn investment by 2030 to double sustainable data centre capacity in Europe**, including a **180 MW campus in Hanau, Germany**—and calls for simplified rules/special project status to accelerate deployment ([Data4 urges streamlined rules to build sovereign EU data centers](#)).

## Compute/operations stack (implications for colo/HPC design)

- **HPC/AI scheduling ecosystem:** NVIDIA acquired SchedMD (Slurm), committing to continue vendor-neutral distribution while optimising for heterogeneous accelerated clusters—supportive for broader AI/HPC adoption and potential standardisation benefits in AI factory operations ([NVIDIA acquires SchedMD to advance Slurm for AI](#)).
- **Liquid cooling supply chain:** Motivair by Schneider Electric launched new CDU products (MCDU-45 and MCDU-55) targeting high-density HPC/AI environments; **production ramp in early 2026**—relevant to deployment timing and component availability for liquid-cooled builds ([Motivair by Schneider Electric launches new CDU range](#)).

## Power, grid, interconnection and energy contracting highlights

### Grid connection regimes and flexibility requirements

- **Ireland (Dublin):** Regulator lifted the de facto moratorium but with stringent conditions: new sites must have **on-site generation or batteries able to meet full demand** and be able to **export power back to the grid**; at least **80% of annual electricity demand must come from new renewable projects**; utilities/operators must publish capacity and annual renewables/emissions reports ([Ireland lifts de facto ban on Dublin data-center connections](#)).

### Clean power sourcing and cross-border supply chains

- **Malaysia (Kedah):** Google signed a **30 MW solar PPA** with a local unit of Japan's Shizen Energy; the solar farm is expected to be **operational by 2027**, supporting Google's Southeast Asia operations including data centres ([Google signs 30 MW solar PPA in Malaysia with Shizen Energy](#)).
- **US (Pennsylvania):** Three Mile Island Unit 1 is being rebuilt and renamed **Crane Clean Energy Center** to generate **hundreds of megawatts**; **Microsoft** has signed a **long-term PPA** for electricity for nearby data centre operations ([Three Mile Island rebooted to power AI data centres](#)).
- **Indonesia-Singapore (Riau Islands export project):** Vena Energy signed a framework supply agreement with **CATL** for up to **4,000 MWh** of EnerX BESS for a project including **>2 GWp solar** exporting to Singapore

via a **subsea interconnector**. The project received **conditional approval** from Singapore's EMA in Sept 2024 and targets supply of **>2.6 TWh annually** ([Vena Energy signs CATL supply deal for Indonesia-Singapore link](#)).

## Utility-scale renewables additions (relevant for corporate PPA supply)

- **South Africa:** Added **890 MW solar PV** under REIPPPP Bid Window 7 (total procurement **3,940 MW across 18 projects**, backed by **R16bn investment**). The four new projects (mostly awarded to **Red Rocket**, Free State and Northern Cape) are expected to connect within **24 months** ([South Africa adds 890MW solar under REIPPPP Bid Window 7](#)).

## Energy system reforms and storage economics (India)

- **Battery storage:** India reports discovered BESS tariffs falling from **₹10.18/kWh (2022-23)** to **~₹2.1-2.8/kWh**, supported by VGF schemes totaling **>43 GWh**. India's ₹18,100 crore ACC PLI scheme is set to add **50 GWh** of domestic cell manufacturing, including **10 GWh** for grid-scale stationary storage ([India cuts battery storage costs with VGF and ISTS waivers](#)).
- **Nuclear framework:** India tabled the **SHANTI Bill (2025)** to unify/replace existing nuclear laws, supporting expansion aligned with a **100 GW nuclear target by 2047** and strengthening safety/liability/regulatory institutions—positioned as enabling round-the-clock clean power for data centres ([India introduces 2025 bill to overhaul nuclear energy law](#)).

## Network infrastructure and subsea cable resilience

- **EU Cable Security Action Plan (industry input):** The European Subsea Cables Association argues the biggest resilience risks are **bureaucracy and repair delays**, recommending notification-based repair processes, faster repair regimes, realistic stress tests, and ownership-neutral funding across critical telecoms and power subsea cables ([ESCA urges EU to support market-led subsea cable security](#)).
- **Supplier screening/monitoring and repair readiness:** Europacable recommends mandatory supplier screening, expanded monitoring technologies, and strengthened repair arrangements including market-led SLAs for repair vessels and strategic stockpiles ([Europacable urges stronger EU measures for subsea cable security](#)).
- **India (Gujarat):** Gujarat government, GIFT City and Henox signed an MoU for a **Dhuvaran cable landing station** with potential investment of **Rs 13.17bn**, expected to create **>1,300 jobs** and support data centre capacity/connectivity ([Gujarat signs MoU for Dhuvaran cable landing station](#)).

# Policy and regulatory developments

## Europe: grids, security, and dual-use funding

- **European Grids Package (impact assessment):** The Commission's preferred approach supports more coordinated EU-level planning, cost-sharing and faster permitting for electricity/hydrogen-related infrastructure to meet 2030–2040 targets, with expected system cost reductions of **up to €8bn/year by 2040** and enhanced infrastructure security ([EU impact assessment for European Grids Package and preferred option](#); [EU impact assessment for European Grids Package and permitting reform](#)).
- **ReArm Europe / dual-use investment channels:** European Parliament adopted at first reading a regulation amending multiple EU programmes (Horizon Europe, DEP, CEF, EDF, STEP) to steer more investment into defence/dual-use technologies. Elements include a defence-focused STEP sector, opening EIC Accelerator to dual-use/critical defence technologies, and deploying AI Factories/AI Gigafactories, alongside prioritising dual-use infrastructure and military mobility corridors ([EU amends programmes to fund defence and dual-use investments](#)).

## US: permitting reform and state/local friction

- **NEPA streamlining:** Reforms and guidance across Congress, the Supreme Court, and executive agencies aim to expedite energy infrastructure and data centre permitting, including defined review timelines and an expedited-review fee option ([NEPA reforms streamline permitting for energy and data centers](#)).
- **State-level pushback:** Michigan rally calls for a moratorium and greater transparency in approvals ([Michigan residents rally for statewide moratorium on AI data centers](#)).
- **Operational emissions scrutiny:** Virginia's expanded "emergency" generator guidance may become a focal point for environmental opposition and future tightening ([Virginia regulators weigh expanded diesel generator use for data centers](#)).

## What to watch (next 1–8 weeks)

- Implementation details and market response to **Dublin's new connection conditions** (on-site supply/export and 80% new renewables requirement) ([Ireland lifts de facto ban on Dublin data-center connections](#)).
- Whether the **European Grids Package** preferred option translates into materially faster permitting/cost allocation decisions for cross-border and national grid expansions ([EU impact assessment for European Grids Package and preferred option](#)).
- Progress on **Amazon's Didcot North** environmental permit and any precedent-setting conditions for UK campuses ([Amazon applies for environmental permit for Didcot data centre](#)).

- Timeline/contracting structure around **Crane Clean Energy Center** rebuild and implications of Microsoft's long-term PPA for other AI clusters seeking clean firm power ([Three Mile Island rebooted to power AI data centres](#)).
- Delivery milestones for **Vena Energy's Indonesia-Singapore** export project, particularly BESS procurement (up to 4,000 MWh) and subsea interconnector pathway ([Vena Energy signs CATL supply deal for Indonesia-Singapore link](#)).
- Momentum behind **subsea cable security** proposals—risk of added bureaucracy vs faster repair regimes ([ESCA urges EU to support market-led subsea cable security](#)).

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