INTELLIGENCE UPDATE

Uptime Intelligence Research Agenda

Douglas Donnellan 1 Jan 2026

The Uptime Intelligence research agenda includes a list of published and planned research reports for 2026, and is focused on Uptime Intelligence primary coverage areas: 1) power generation, distribution, energy storage; 2) data center management software; 3) sustainability, energy efficiency; 4) silicon and systems; 5) resiliency: outages, topology, climate risks; 6) cooling and heat rejection; 7) staffing and skills; 8) security and human risk.

October 2025

Data center labels: a very public appraisal

Staffing crisis persists as colos struggle to retain junior operators

Battery options fizzle as sodium-ion startup shuts

French data center policies affecting sustainability

Neoclouds: AI's shock absorbers

Why are operators collecting less sustainability data?

Key players: cloud control and the colo advantage

AI's growth calls for useful IT efficiency metrics

Mapping PUE trends by data center region, age and size

Liquid-to-air eases DLC rollout, but mind the setpoints

AI and cooling: toward more automation

Emerging technology: neuromorphic computing

AWS outage: what are the lessons for enterprises?

Emerging technology: superconductivity in the facility

AI uncertainty: More adoption, more caution

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AI uncertainty: Bubble trouble brewing

November 2025

Scope 2 Guidance update: impact on climate disclosure

How financial institutions are using AI and cloud today

South Korean data center fire sparks a stark reminder

What the Azure outage revealed about internet fragility

Fewer operators cite sustainability as DLC driver

China: centralized rules for data center efficiency

Integrated cold plates will help realize free cooling

AI in facility operations: three applications to watch

Investments signal a heated liquid cooling race

EU makes more cuts to environmental reporting

EU label and performance value proposals move ahead

Emerging tech 3: enhanced geothermal

December 2025

Supply chains show signs of stability, but delays persist

Enterprise and colo spending strategies for 2026 vary

Do data centers reserve too much grid power?

Validating the use of high-density DLC

Gen AI power consumption set to double in 2026

AI in data: sorting reality from hallucination

Runaway success of Li-ion raises bar for battery innovators

Late change reinstates some EU reporting rules

Japan joins the push for data center regulation

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Many giant data center projects advance, despite risks

Survey highlights industry staffing crisis

Uptime Intelligence predictions for 2025 re-examined

What makes a data center DGX-Ready?

Data centers in space: sky high costs, astronomical challenges?

January 2026

Five data center predictions for 2026

Giant data center power plans reach extreme levels

Nvidia's vision: digital twins and automated facilities

How scale and occupancy shape data center and colo economics

Supply chain exploits: the blind spots operators need to address

Coolant distribution units can complicate commissioning

What cloud sovereignty really means

EU power providers urged to protect grids from data centers

As emissions soar, operators look to carbon capture

Liquid cooling will not outgrow its high-density niche

Final date for EED rating label confirmed

New power architectures to reshape data center design

Enterprises begin to demand returns from generative AI

February 2026

As capacity demands surge, operators rethink cloud strategies

AI automation moves from pilots to early production

Next-gen GPUs may not need chillers - but data centers do

Microsoft's Community-First Plan needs more work

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Rising cost of traditional IT: temporary spike or long-term shift?

Ireland's new grid rules signal shift in data center roles

Musk's moonshot project faces astronomical challenges

Why inference will become a ubiquitous IT workload

The struggle between AI and net-zero is becoming visible

France sets strict PUE and WUE thresholds as tax incentive

Resiliency will be re-examined, but few will compromise

Digital twins and DCIM: why data quality must come first

Regulations for behind-the-meter power are emerging

Data center cancellations on the rise as public opposition grows

March 2026

Where to deploy AI inference: a guide to the economics

Interactive AI inference costing tool

IT power utilization thresholds can incentivize server efficiency

Mandated off-grid power could derail cloud expansion

Net-zero timelines are becoming more realistic

PUE caps in Singapore will force data center upgrades

Capacity allocation and the next generation of AI-era KPIs

Project approval will hinge on local benefit guarantees

Rising densities pose hidden risks for electricians

Enterprises will deploy inference in-house — if they can

Community backlash forces operators to rethink NDA use

CoolIT sale signals strong pipeline for DLC orders

April 2026

How AI training choices affect infrastructure costs

Interactive AI training approach costing tool

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US capacity growth stumbled in 2025: what happened?

Vendors gearing up for 800V DC adoption

Draft EED delegated regulation sidesteps critical issues

Investments back two-phase cooling as water cold plate successor

US states rethink tax breaks amid rising scrutiny and costs

Energy crisis elevates the importance of fuel management

Dry cooling energy performance can rival evaporative cooling

US data center opponents shift from moratoria to regulations

May 2026

Annual outage analysis 2026

Where to deploy AI training: a guide to the economics

Interactive AI training venue costing tool

Flagship servers push peak performance and lift efficiency

NIMBY myths and how to debunk them

BYOP and demand flexibility may fall short

Is modular/prefab making a comeback?

Telemetry and software: what is possible

Google to use batteries to smooth wind/solar supply to new MN data center

Size matters for energy performance: the case for 2U

Confusion and consensus in liquid cooling maintenance

June 2026

Energy price implications for data centers

DCIM buyer's guide

Big AI training data centers are being built to concurrent maintainability standards

GHG Protocol Draft Scope 2 Accounting Guidance comments

Energy forecasts

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Energy Management Systems: an important EED milestone

July 2026

Uptime Institute Global Data Center Survey 2026

Operators trust in colo and cloud claims for CFE is growing

What to do to avoid public pushback/resistance to DC developments

(Titles, dates and descriptions are subject to change. Further details and extra reports and updates will be added to further iterations of this sheet as needed and will be available closer to the date of publication.)

ABOUT THE AUTHOR

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Douglas is a Research Analyst at Uptime Institute covering sustainability in data centers. His background includes environmental research and communications, with a strong focus on education.

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About Uptime Institute

Uptime Institute is the Global Digital Infrastructure Authority. With over 4,000 awards issued in over 122 countries around the globe, and over 1,100 currently active projects in 80+ countries, Uptime has helped tens of thousands of companies optimize critical IT assets while managing costs, resources, and efficiency. For over 30 years, the company has established industry-leading benchmarks for data center performance, resilience, sustainability, and efficiency, which provide customers assurance that their digital infrastructure can perform across a wide array of operating conditions at a level consistent with their individual business needs. Uptime's Tier Standard is the IT industry's most trusted and adopted global standard for the design, construction, and operation of data centers.

Offerings include the organization's Tier Standard and Certifications, Management & Operations reviews and assessments including SCIRA-FSI financial sector risk assessment, the Sustainability Assessment, and a broad range of additional risk management, performance, availability, and related offerings. Uptime Education training programs have been successfully completed by over 100,000 data center professionals, such as the much-valued ATD (Accredited Tier Designer) and AOS (Accredited Operations Specialist). The Uptime Education curriculum has been expanded by the acquisition of CNet Training Ltd. In 2023.

Uptime Institute is headquartered in New York, NY, with offices in London, Sao Paulo, Dubai, Riyadh, and Singapore, and full-time Uptime professionals based in over thirty-four countries around the world.

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